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UVU strives to ensure the accessibility of our catalogs. However, if individuals with disabilities need this document in a different format than provided, you may contact the Assistive Technology Center at ACCESSIBLETECH@uvu.edu or 801-863-6788.
Welcome to Utah Valley University!

At UVU we encourage you to come as you are – there is a place for you here. You have a unique story, and your continued development of self, combined with the acquisition and implementation of knowledge, can put you on the path to success — academically, professionally, and personally.

As part of our mission ethos, we are champions of learning by doing. We call it engaged learning. This approach takes the best learning from textbooks, research, and class lectures and combines it with a myriad of opportunities for practical application. Since our founding, we have created connections that help our students expand their horizons and become better prepared to enrich society and the world around them. The world is dynamic, and we believe higher education should reflect that.

Each UVU student, with her or his unique characteristics and background, is important to the whole of the university and plays a crucial role in the vibrancy of our community. I invite you to be actively engaged in your life as students, enjoying the many extracurricular activities and athletic offerings on our campus as you complete your degree. Be assured that the seriousness with which you pursue your studies will be richly complemented and supported by a comprehensive network of invested faculty, staff, and administrators. Together, these women and men will ensure that UVU is a place of exceptional care, exceptional accountability, and exceptional results.

I encourage you to explore the pages of UVU’s course catalog. Our wide range of offerings in certificate programs and associate, bachelor, and graduate degrees reflects our approach to higher education. This integrated model of education, combining career and technical education alongside more traditional academic degree programs, produces first-rate scholars and practitioners in highly sought-after fields. No matter your background or interests, there is a place for you at UVU. So, come as you are — bring your dreams.

Go Wolverines!

Best wishes,
Introduction

Dr. Astrid S. Tuminez

Academic Policies & Standards

Academic Year

The academic year consists of three semesters: fall, spring, and summer. Fall and spring semesters are each made up of 15 weeks of class work and one week for final exams. The summer semester is 14 weeks in length; most classes are offered in one of two seven-week blocks. The time in classes is adjusted to equal the class time of fall and spring semesters, but there is no final exam period during summer.

Course Administration

UVU reserves the right to cancel any course at any time. Reasons for course cancellations include, but are not limited to, low enrollment in the course, space unavailability, instructor change, loss of instructor, and/or program changes. Students enrolled in the course will be contacted as soon as possible by the appropriate school or college when the university decides to cancel a course.

Class Periods/Credits

All credit hours are computed in semester hours. Three hours of work per week are, on average, expected to earn one semester credit hour; however, one credit hour may include any of the following combinations of work:

1. One hour of lecture, plus a minimum of two hours of personal work outside of class, regardless of delivery mode (One hour of lecture is considered to be 50 minutes per week);
2. Three hours in a laboratory, internships, practica, studio work, or other academic work, regardless of delivery mode, with additional outside work in preparation and documentation;
3. Any other combination appropriate to a particular course as determined by the academic department.

All transfer courses taken on a quarter system will be converted to semester hours using a three to two credit ratio. For example, a three credit hour course from a quarter calendar institution transfers to UVU as two semester credits.

Full-time Student Status

Graduate

UVU considers graduate students registered for 9 credits or more per semester or summer to be full-time graduate students. A 9 credit hour minimum load is generally accepted by sponsoring agencies for certifying full-time status.

Undergraduate

UVU considers students registered for 12 credits or more per semester or summer to be full-time students. A 12 credit hour minimum load is generally accepted by sponsoring agencies for certifying full-time status. Financial aid recipients receiving full benefits and students on scholarships are required to carry a minimum of 12 credits per semester.

For students attending only the fall and spring semesters, 15 to 18 credits per semester is generally required to complete associate degree programs within two academic years or bachelors degrees within four academic years, assuming all prerequisites are satisfied (See individual major requirements for exceptions).

Credit Hour Loads in Excess of 20

Students who enroll in 21 or more credit hours in a semester must have approval from the deans of the appropriate schools and/or colleges.

Year Classifications & Credit Hours

Freshman: 0-29 credit hours
Sophomore: 30-59 credit hours
Junior: 60-89 credit hours
Senior: 90 or more credit hours
Grading Policies

Grades are determined by instructors, based upon measures determined by the instructor and department and may include: evaluation of responses, written exercises and examinations, performance exercises and examinations, classroom/labatory contributions, mastery of pertinent skills, etc. The letter grade “A” is an exceptional grade indicating superior achievement; “B” is a grade indicating commendable mastery; “C” indicates satisfactory mastery and is considered an average grade; “D” indicates substandard progress and insufficient evidence of ability to succeed in sequential courses; “E” (failing) indicates inadequate mastery of pertinent skills or repeated absences from class; “UW” indicates unofficial withdrawal from class.

The following table indicates each grade variant and the equivalent grade points for that variation.

<table>
<thead>
<tr>
<th>One credit of:</th>
<th>Equals grade points:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.4</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>2.4</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td>1.4</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>D-</td>
<td>0.7</td>
</tr>
<tr>
<td>E</td>
<td>0.0</td>
</tr>
<tr>
<td>UW</td>
<td>0.0</td>
</tr>
</tbody>
</table>

The following grades are not computed in the GPA:

<table>
<thead>
<tr>
<th>Letter grade</th>
<th>Grade description</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td>Official Withdrawal</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
</tr>
<tr>
<td>AU</td>
<td>Audit</td>
</tr>
<tr>
<td>CR</td>
<td>Credit Granted</td>
</tr>
<tr>
<td>NC</td>
<td>No Credit Granted</td>
</tr>
<tr>
<td>CEU</td>
<td>Noncredit—Continuing Education Unit</td>
</tr>
<tr>
<td>T</td>
<td>In Progress (Temporary Status)</td>
</tr>
</tbody>
</table>

The GPA is determined by dividing the total grade points earned (credit hours times grade in points above) by the number of semester hours attempted.

Students may view final grades electronically on the myUVU system after the end of the semester. All financial obligations to the Institution and “holds” on academic records must be resolved before college transcripts are issued.

Incomplete (I) Grades

Students are required to complete all courses for which they are registered by the end of the semester. In some cases, a student may be unable to complete all of the course work because of extenuating circumstances. The term “extenuating circumstances” includes: (1) incapacitating illness which prevents a student from attending classes (usually more than five consecutive class days); (2) a death in the immediate family; (3) change in work schedule as required by employer; or (4) other emergencies deemed acceptable by the instructor.

If circumstances are deemed appropriate, the student may petition the instructor for time beyond the end of the semester to finish the work. If the instructor agrees, an “I” grade will be given. An Incomplete Grade Form indicating work completed and work to be completed must be signed by the student, instructor, and the department chairperson, and turned into the Registrar’s Office at the end of the semester.

“I” grades should not be requested nor given for lack of completion of work because of procrastination or dissatisfaction with the grade earned. Per policy, students must be passing the course and have completed 70% or more of the course work in order to qualify for an incomplete.
Introduction

Specific arrangements to remove an “I” grade must be made between the student and the instructor. In most circumstances, work to be completed should be finished in the first two or three weeks following the end of the semester in which the “I” was given. Failing to complete the “I” and replace it with the appropriate letter grade may negatively affect any financial aid.

Incomplete work cannot be completed by retaking the class. If such an option is preferred, the student must take the grade earned and then retake the class for a better grade. The grade for the later class will be calculated in the GPA. In all cases, the “I” grade must be made up within one year. If it is not, the “I” grade will change to an “E” on the transcript. “I” grades are not computed in the GPA.

Repeating a Course

No additional credit is allowed for repeating a course in which the initial grade was passing unless the course number for the course ends in the letter suffix “R” or “Z” (a course designed to be repeatable for credit). For other repeated courses, the most recent grade will be used in the calculation of the GPA. Upon successful completion of the repeated course, the repeat is indicated on the student's transcript (E=Exclude, I=Include). All work will remain on the records, ensuring a true and accurate academic history. (Note: Although not used in computing the UVU overall GPA for UVU purposes, many graduate programs, such as law or dental school, include ALL grades in calculating an overall GPA for admissions criteria.)

Courses are not accepted from other institutions for the purpose of posting a repeat of a course already taken at UVU.

Board of Regents policy requires that students shall be charged at the full cost of the instruction tuition for repeating a course more than once, unless the institution determines that the repetition is a result of illness, accident or other cause beyond the student's control or unless the course is prescribed by the student's program of study. This affects all courses beginning January of 2003.

Changing a Grade Other than an Incomplete

Policy

Any student who has reason to believe that a grade assigned in a specific course was not justified has the right to appeal that grade.

Procedure

Student Action—

Grades may be appealed within one year of issuance in the following manner:

First, the student shall approach the instructor of the course as soon as possible after receiving the final grade. They have the right to discuss the merits of their appeal in an informal and non-threatening environment.

Second, after obtaining feedback from the instructor regarding the rationale for assigning the original grade, and assuming dissatisfaction still exists at the conclusion of the first step, or if the original instructor is no longer available, the student has a right to submit a written appeal to the department chair, in a consultation setting.

Finally, if a mutual understanding cannot be reached in the second step, the student has the right to submit a formal written appeal through the Office of the Registrar to the University Academic Standards Committee, which exercises final authority in adjudicating the appeal.

Faculty Action

During the first year after the issuance of a grade, an instructor for a specific class may submit a grade change form with proper documentation directly to the Records Office.

During the second through fifth years, the grade change form must be accompanied by an Academic Standards Petition filled out by the student and submitted by the course instructor or department chair directly to the registrar. If a grade change is requested and the faculty member who gave the original grade is no longer employed by UVU, the appropriate department chair may make the change if it is warranted.

After five years, a grade change may be considered only where evidence exists to prove that an error occurred in the recording of the original grade or extreme extenuating circumstances existed. In the latter case, an Academic Standards Petition with appropriate documentation may be submitted to the Office of the Registrar for possible consideration by the University Academic Standards Committee.

When the Records Office receives a signed change of grade form from an instructor, the new grade(s) are entered into the computer. An explanation of the transaction is entered into the student's record, including what the old and new grades are.

Withdrawal & Reinstatement

Students may drop and withdraw from classes according to the dates and deadlines posted on the Semester Student Timetable. Classes may be dropped and not appear on the transcript through the drop deadline. After the last day to drop noted on the Semester Student Timetable, a grade of “W” will appear on the transcript for all official withdrawals and students will be responsible for tuition and fees. A “W” grade could impact a student's satisfactory academic progress with the Financial Aid and Scholarships Office.

Withdrawal from a course after the last day to withdraw deadline may only be for extenuating circumstances and not solely for academic difficulty, and requires the signature of the department chair with a department approval stamp. Such changes to a student's schedule may adversely affect current and future financial aid, scholarships and/or refunds. Students are cautioned to see a financial aid advisor before attempting to completely withdraw from school.

If a student stops attending (but does not officially withdraw) before the last day to withdraw, they should receive a “UW.”
If a student stops attending (but does not officially withdraw) **beyond the last day to withdraw**, they may receive the grade earned up to that point, or an “E”, at the instructor’s discretion.

“UW’s” are calculated into the grade point average (GPA) as 0.00, the same as “E’s” (failing grades).

**Administrative Drops and Withdrawals**

Students may be dropped or withdrawn from classes by the administration if they: 1. register, but do not attend courses within the first three class periods of a semester; 2. register for courses for which they have not completed prerequisites; 3. neglect to pay tuition and fees for any given semester by the deadline published in the Student Timetable; or 4. other administrative reasons. Such changes to a student’s schedule could affect financial aid, scholarships, and/or refunds.

**Withdrawal from the Institution**

It is the responsibility of the student who withdraws from school to complete the online Leave of Absence process. If withdrawing (Leave of Absence) after the refund period noted in the Semester Student Timetable, a grade of “W” will appear on the transcript for all official withdrawals and students will be responsible for tuition and fees. A “W” (official withdrawal) grade could impact a student’s satisfactory academic progress with the Financial Aid and Scholarships Office. Complete withdrawal from college may adversely affect financial aid and/or Veterans’ benefits.

Simply stopping attendance does not qualify as an official withdrawal, and a student who does so may receive a failing grade.

**Reinstatement**

Students who withdraw from UVU and then desire to be reinstated during the same academic semester may do so by obtaining clearance from the Registrar’s Office and completing the late registration process.

**Student Military Leave Procedure**

Students activated into military service during an academic semester for which they are currently enrolled have the following options to choose from, in addition to other alternatives provided by existing policy and regulation. The student is responsible to notify appropriate Institution officials regarding the implementation of the selected option.

1. A request to withdraw from school will be honored with a full refund of all tuition and fees paid. Non-punitive “W’s” will be recorded on the transcript and the date of action maintained on the student’s record.
2. Incomplete grades may be negotiated with individual faculty and/or departments based on realistic means of completing the required objectives of the course(s). Where recommended by the department (faculty), the time limit for completing the “I” may be extended. This option may include “home study” as a means of completing the required work with faculty approval and where practical.
3. Current grades (grades earned at the point of termination) may be issued at the discretion of individual faculty. This is also a negotiated option.

In all cases, the student activated into military service is eligible for readmission.

**Noncredit Continuing Education Unit (CEU)**

Noncredit or Continuing Education Students are taking courses to pursue personal or professional interest, gain general knowledge, learn a new skill, upgrade existing skills, or enrich their personal understanding of a wide variety of topics. These courses do not offer college credit, but in some cases noncredit or continuing education students can earn continuing education units, certification or other evidence of class completion to meet personal or professional requirements. Noncredit course work cannot be substituted for a credit requirement or any required course on a degree pathway.

**College Credit**

College credit at UVU may be obtained through the following methods: 1. UVU Credit (includes Cooperative Education); 2. Transfer Credit; 3. Challenge Credit; 4. Foreign Language Challenge Credit; 5. Advanced Placement Credit; and 6. CLEP (College Level Examination Program).

### 1. UVU Credit

UVU credit is obtained through admittance to UVU, registering for classes, and satisfactorily completing all required course work. Courses completed through this method will receive a letter grade that will be used in calculating Grade Point Average (GPA).

**Cooperative Education**

Cooperative Education (Coop) offers another avenue for students to obtain UVU college credit. Students enrolled in cooperative education work as paid employees of a business, agency, or institution while enrolled at UVU in classes related to their career. Academic credit for cooperative work experience is granted according to the number of hours a student works during the semester using the following formula:

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Minimum hours of work</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>75</td>
</tr>
<tr>
<td>2</td>
<td>150</td>
</tr>
<tr>
<td>3</td>
<td>225</td>
</tr>
<tr>
<td>4</td>
<td>300</td>
</tr>
</tbody>
</table>
Introduction

<table>
<thead>
<tr>
<th>Credit hours</th>
<th>Minimum hours of work</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>375</td>
</tr>
<tr>
<td>6</td>
<td>450</td>
</tr>
<tr>
<td>7</td>
<td>525</td>
</tr>
<tr>
<td>8</td>
<td>600</td>
</tr>
</tbody>
</table>

Coop credits are registered for at the same time and in the same manner as UVU credits.

Courses completed through Cooperative Education will receive a credit/no-credit grade which is not included in the calculation of the GPA.

The maximum number of coop credits that may be applied toward a certificate is 8; a diploma is 14; an associate or bachelor’s degree is 16 credit hours. Departments define how coop credit is applied to specific programs. Additional coop credit may be taken (but not applied toward graduation) with approval of the cooperative education director and the appropriate dean.

2. Transfer Credit

It is the student’s responsibility to have official transcripts of any previous college work completed elsewhere sent to the UVU Admissions Office. Transcripts accepted as official by the UVU Admissions Office are automatically sent to the Transfer Credit Office for evaluation and posting. The Transfer Credit Office may require the student to supply the catalog, bulletin, or course outlines from previous schools attended to assist in determining the transferability of specific courses. Transfer credit may or may not apply to UVU graduation requirements, regardless of the number of credits transferred.

Transfer courses with grades below “C-” will not be accepted by UVU. Transfer courses are not calculated in the GPA. Individual departments reserve the right to impose limits on the age and grade level of transfer credit. There is no limit to the number of transfer credits that may be accepted; however, UVU graduation requirements such as residence, total credits, and GPA must still be met.

Transfer courses will not be accepted from other institutions for the purpose of posting a repeat on a course already taken at UVU.

Courses in religion will be evaluated on the basis of the particular orientation of the course as determined by the UVU Religious Studies Committee. In order to be considered, these courses must be listed on an official transcript from a regionally accredited institution and must demonstrate scholarly rigor and critical engagement with the subject matter.

General Education for Transfer Students

For transfer students from any Utah State Higher Education institution, UVU shall accept at full value all General Education course work approved by the sending institution; provided it meets the minimum C- letter grade requirement, in any area specified by the Board of Regents document R470. These areas include Composition, Quantitative Literacy, Fine Arts, Humanities, Social and Behavioral Science, Biology and Physical Science. UVU shall require transfer students to complete any additional coursework needed to satisfy the unmet portions of the UVU General Education requirements. Previously completed General Studies course work shall be applied to assure the best possible fit with UVU’s General Education requirements. As each transfer student’s requirements may vary, see the Transfer Credit Office (BA 113 for specific requirements.

An AA or an AS degree earned at any USHE institution will meet the General Education requirements of UVU. The degree must include equivalents of UVU’s English, Mathematics, and American Institutions requirements or the student will have to fulfill these requirements separately.

Credit for ACT/SAT Scores

On May 12, 2015, Senate Bill 196 - Math Competency Initiative passed which mandated that the State Board of Education establish a qualifying score for ACT/SAT scores in order to award college credit for a mathematics course. This course must satisfy the state system of higher education quantitative literacy requirement. This initiative will go into effect as of the 2016-2017 school year. High School students who have graduated during the 2016 school year and onward will be eligible for QL 1900 based off of an ACT score of 26 or an SAT score of 660.

U.S. Institutions outside of Utah

For transfer credit to be accepted by UVU, the institution from which credit is to be transferred must be accredited by one of the following regional associations:

- Middle States Association of Colleges and Schools (MSA)
- Northwest Commission on Colleges and Universities (NWCCU)
- North Central Association of Colleges and Schools (NCA)
- New England Association of Schools and Colleges, Inc./Commission on Institutions of Higher Education (NEASC-CIHE)
- Southern Association of Colleges and Schools/Commission on Colleges (SACS-CC)
- Western Association of Schools and Colleges/Accrediting Commission for Community and Jr. Colleges (WASC-Jr.)
- Western Association of Schools and Colleges/Accrediting Commission for Sr. Colleges and Universities (WASC-Sr.)

A completed associate degree (i.e. AA or AS) designed for transfer earned at one of these regionally accredited institutions will fill most of the UVU general education requirements if the degree includes a minimum of 30 semester credit hours of general education that is broad and representative of UVU’s general education core. The completed AA or AS degree must include direct equivalents of UVU’s English, Mathematics, and American Institutions requirements or the student must fulfill these requirements separately. If the courses within the transferable degree aren’t considered to be transferable or general education courses, the classes and the degree may not be recognized and courses will be evaluated individually for transferability and equivalency.

Non-accredited institutions may be accepted on an exception basis by individual departments.
Military courses are evaluated using the ACE recommendations from the Guide to the Evaluation of Education Experiences in the Armed Services. Approved credits will be applied if they directly pertain to a student’s individual undergraduate degree program.

**International and Foreign Institutions**

The Transfer Credit Office, working with department academic advisors and faculty, is authorized to evaluate credit from foreign colleges, universities, and/or International Baccalaureate (IB) Diplomas after a student has been admitted to UVU. International students requesting transfer of credit from foreign institutions of higher education must submit a transcript from an approved Foreign Credentials evaluation Service. See the Transfer Credit Office (BA 113) for a list of these accepted services.

Transfer courses from international and foreign institutions are not calculated in the GPA.

**3. Challenge Credit/Experiential Credit**

(Equivalency Examination and/or Documentation of Earned Competency)

No more than 25 percent of the minimum credits required toward a bachelor's degree, and associate degree, diploma, or certificate of completion, may be awarded through experiential and/or challenge credit. Challenge credit and experiential credit are not eligible for use in a certificate of proficiency. Credit for courses that appear in the current catalog may be awarded to individuals who can prove through appropriate assessment and/or documentation that they have already acquired the equivalent knowledge and/or expertise required for successful completion of that course.

To receive experiential/challenge credit for a specific course, the student must

1. Be enrolled at the University.
2. For Challenge credit, complete a comprehensive examination (theoretical and/or applied) with at least a “C-” grade; or for Experiential credit, provide documentation of practical experience to the satisfaction of the department chairperson and dean showing course objectives have been met; or with the departmental approval, complete an advanced course with a grade of "C-" or higher (if deemed necessary by the department) as a validation procedure.
3. Pay, in advance, a nonrefundable processing fee.
4. After successful completion of requirements, pay the per-credit-hour fee.

A specific course shall be challenged only once, and a student shall not receive challenge/experiential credit for a course that the student is/or has been previously enrolled in and received a grade, including a "W or AU" grade.

Duplicate credit will not be awarded.

Grades shall be recorded only as "CR" (credit) and shall not be calculated in a student's university GPA.

**4. Language Challenge Credit**

Students may obtain an Experiential Language Credit Request Form in the UVU Languages and Cultures Department.

Students who have acquired proficiency in languages **offered at UVU** by means other than college courses (high school, foreign residency, etc.) may earn up to 16 credit hours. To qualify for these credits, a student shall complete a course in that language at a higher level than the credits for which they apply; and the grade in that course must be a “C-” or better.

To qualify for credit for language courses **not offered at UVU**, a student may, as an alternative, take the appropriate language test at any accredited four-year institution and provide UVU with the satisfactory (C- or better) test results. In this circumstance, the student must meet with the Languages and Cultures department chairperson to ascertain the maximum language credits that may be applied to any degree from UVU.

Proficiency tests to determine placement (not credit) in advanced courses are administered in the UVU Classroom Testing Center prior to the beginning of each semester. Students unsure of their language skills must take the test or receive permission from the course instructor before registering for advanced classes.

Students who qualify for credit under the above provisions (for example, they register for, and successfully complete, Spanish 2010 with at least a “C-” grade, thus qualifying for the credits for the previous courses—1010 and 1020) must petition for those credits (application forms are available in the Languages and Cultures Department) and pay a fee for each credit hour. No additional tuition will be charged for those credits. The credits will be listed on transcripts as “CR” and are not calculated in the GPA.

Additional information regarding language challenge credit and other policies are available from the Languages and Cultures Department.

**5. Advanced Placement Credit**

Students who complete an Advanced Placement Exam through CollegeBoard may earn up to 8 academic credits per test with a score of 3, 4, or 5, as per the policies set forth by the Utah State Board of Regents. Students having AP test scores of 3 or higher should contact the Transfer Credit Office to ensure posting of the results to their UVU transcripts.

Specific equivalencies and acceptance criteria are updated annually, upon departmental faculty review and approval.

If all **residence, credit, and grade point average** requirements have been met, there is no limit to the number of Advanced Placement credits that may be accepted; however, duplicate credit for tests and course work shall not be applied.

AP credit will be posted as a "CR" grade and will not be calculated in the GPA.
6. CLEP Credit (College Level Examination Program)

Students may receive college credit for CLEP exams as specified on the approved list in the Transfer Credit Office. Additionally, students intending to transfer to another institution from UVU should meet with their intended transfer institution to gain advance information on how that institution accepts CLEP credit.

CLEP credit will be posted as a “CR” grade and will not be calculated in the GPA.

The amount of credit given through CLEP subject examinations is determined by the appropriate departments. No more than 25 percent of the minimum credits required toward a degree may be awarded through CLEP and/or Challenge/Experiential Credit hours.

Course Number System

0000-0999 Remedial or preparatory noncredit courses; may not be counted toward a certificate, diploma, associate, or bachelor’s degree. Technical, nontransferable courses may count toward a certificate.

1000-2999 Lower division (freshman and sophomore courses); courses designed as transfer courses; count toward a certificate, diploma, associate, and/or bachelor’s degree.

3000-5000 Upper division (junior and senior courses); courses designed to count toward a bachelor’s degree, or any other degree as required by department.

6000 Graduate courses; regular courses in master’s level programs.

Learning Enrichment courses with 1000 level numbers do not satisfy General Education requirements for the associate or bachelor’s degrees. These classes may count as electives for the Associate in Arts, Associate in Science, and Bachelor of Science degrees.

The letter suffix “R” indicates that a course is repeatable for credit (example: PES 161R). Course descriptions indicate the number of “repeats” allowed.

Variable and partial credit is indicated by letter suffixes of “A,” “B,” “C,” etc. (example: ACC 201A = 4 credits and ACC 201B = 2 credits). Changing the hours of credit for a variable-credit class after registration may be done only through the add/drop (class change) procedure. Such changes must be made prior to completion of that partial course.

“Honors” credit courses are identified on the transcript by an “H” following the course number (example: ENGL 225H).

Global/Intercultural credit courses are identified on the transcript by a “G” following the course number (example: ANTH 101G).

Undergraduate Academic Standards

- Academic Counseling Center
- Office: LC 402
- Telephone: 801-863-8425

Policy

Academic standing is determined by the grades a student earns at UVU. A student with the most recent semester grade point average (GPA) and cumulative GPA of 2.0 or higher on a 4.0 scale is in good academic standing. When a full- or part-time undergraduate student fails to maintain a semester or cumulative GPA of 2.0 on a 4.0 scale, the student shall be notified of progressive academic intervention actions.

Students placed on alert status, academic warning, academic probation, and continued academic probation remain eligible for all extracurricular activities as governed by the rules of the specific activity. This policy does not include nor preclude additional program requirements that may be mandated by specific departmental majors.

Procedures

Academic intervention shall be applied progressively in the order described below.

Alert Status

When a student is not making adequate progress towards course completion and the instructor is unable to resolve the issue with the student, the student may be placed on alert status. A registration hold may be placed on the student’s record. The student must then meet with their academic advisor for guidance before the registration hold will be removed.

Academic Warning

When the semester GPA falls below 2.0 and the cumulative GPA is 2.0 or above, the student shall be placed on academic warning regardless of alert status. A registration hold shall be placed on the student’s record. The student must complete an academic success warning workshop and meet with their academic advisor before the registration hold will be removed.

Academic Probation

When the semester and cumulative GPA both fall below 2.0, the student will be placed on academic probation. A registration hold shall be placed on the student’s record. The student must complete an academic success probation workshop, develop an academic success plan, and meet with their academic advisor before the registration hold will be removed.
Continued Academic Probation
If the student on academic probation fails to raise the cumulative GPA to a 2.0 or above in the subsequent semester, the student will be placed on
continued academic probation. A registration hold shall be placed on the student’s record and the student must prepare an academic success plan
with their academic advisor as well as the academic standards counselor before the registration hold will be removed. The student may also be
required to attend another academic success probation workshop and/or enroll in a college success class.

All students on continued academic probation will be required to submit an in-progress grade report to the Academic Standards Office in order to
register for any subsequent semester(s). The student shall continue to receive advisement from the academic standards counselor, as well as their
academic advisor, to monitor and promote academic progress.

Academic Suspension
When on continued academic probation, a student receiving a semester and cumulative GPA below 2.0 in a subsequent semester shall be placed
on academic suspension. The student shall be immediately dropped from enrollment in all current semester classes and a registration hold shall
be placed on the student’s record. The student shall be suspended for a minimum of one full semester. During this time the student is expected to
resolve all academic problems that led to the academic suspension.

To re-enroll at the University, a student must submit a Petition for Academic Suspension Review to the Academic Support Committee. This
committee will make suggestions for specific customized interventions to be approved by the Academic Standards Committee. A decision shall
then be rendered as to whether, and under what conditions, the student may continue to study at the University. The student must complete the
requirements set forth by the Academic Standards Committee before the registration hold will be removed.

Academic Probation Returning from Academic Suspension
When the academic suspension petition is granted, the student is allowed to resume their academic studies under probation returning from
suspension. This status allows the student to register for classes under the guidance of the Academic Standards Office, in conjunction with their
academic advisor. As long as the student acquires a semester GPA of 2.0 or above in all subsequent semesters and abides by the conditions
outlined by the Academic Standards Committee, the student may continue to enroll in classes. The student will remain on academic probation
returning from academic suspension until the cumulative GPA is at or above 2.0.

Academic Dismissal
When failing to comply with the conditions set forth by the Academic Standards Committee while on academic probation returning from academic
suspension, the student shall be dismissed from the University and immediately dropped from enrollment in all classes. A registration hold shall be
placed on the student’s record.

The student may not re-enroll at the University or submit a Petition for Academic Dismissal Review for a minimum of one full calendar year from the
date of academic dismissal. During this calendar year, the student may also be required to attend another institution and complete 18 credits with at
least a 2.5 GPA. Upon review by both the Academic Support Committee and the Academic Standards Committee, a decision will be rendered as to
whether or not, and under what conditions, the student may re-enroll at the University.

Any student who returns to the University after being dismissed will be placed on academic probation returning from academic dismissal and will be
required to follow the academic plan outlined by the Academic Standards Committee.

Academic Probation Returning from Academic Dismissal
When the Petition for Academic Dismissal Review is granted by the Academic Standards Committee, the student is allowed to continue their
academic studies on academic probation returning from academic dismissal. The student is allowed to register for classes under the guidance of
the Academic Standards Office, in conjunction with their academic advisor. As long as the student acquires a semester GPA of 2.0 or above in all
subsequent semesters and abides by the conditions outlined by the Academic Standards Committee, the student may continue to enroll in classes.
The student will remain on probation returning from dismissal until the cumulative GPA is at or above 2.0.

Appeals
When the student’s Petition for Academic Suspension Review or Petition for Academic Dismissal Review is denied by the Academic Standards
Committee, the student may present an appeal to a hearing panel that consists of the Academic Standards Committee and a representative
appointed by the President of the Utah Valley University Student Association (UVUSA). After review of the petition, the hearing panel will determine if
the student’s appeal is granted or denied. If the appeal is granted, the hearing panel shall determine the conditions for re-enrollment at the University.

If the student is unsatisfied with the hearing panel’s decision, the student has the right to appeal in writing to the Vice President of Academic Affairs.

Academic Renewal
For students who are challenged with a low GPA or for those who have experienced a period of low grades that does not reflect their academic
potential, UVU offers academic renewal. A student is allowed to petition the Registrar for academic renewal only one time during his or her
enrollment at the University. This process shall remove a limited amount of previous academic work from the student’s GPA and from credit toward
graduation. To be eligible a student shall meet the following conditions at the time the petition is filed:
1. The student must be currently enrolled at UVU.
2. A minimum of two years has elapsed since the most recent course work to be eliminated was completed.
3. The student has completed at least 30 semester hours of UVU course work with a minimum cumulative GPA of 2.50. These 30 hours shall
   have been completed after the course work the student is requesting to eliminate.
Introduction

4. The student's cumulative GPA is below the level necessary for graduation in his or her current program of study. In most instances, this is a 2.0 cumulative GPA.
5. The requested course work has not been used toward an existing degree.

The student may request a maximum of two specific semesters/terms of academic course work be eliminated from his or her earned credits and cumulative GPA. Individual courses shall not be accepted.

If the petition qualifies under this policy, the student’s permanent academic record shall be annotated to indicate that no work taken during the disregarded semester(s) and/or term(s), even if satisfactory, shall apply toward earned credits, GPA, academic standing, and/or graduation requirements. All work shall remain on the records, ensuring a true and accurate academic history. The words “Academic Renewal” and the affected semester(s)/term(s) shall be annotated on the student’s transcript.

Academic renewal shall not be requested to earn or change academic honors status on a student’s transcript.

Academic Renewal cannot be applied for either hours attempted/completed (quantitative Satisfactory Academic Progress), or cumulative GPA (qualitative Satisfactory Academic Progress) for Title IV (Federal Financial Aid) purposes. Students who are granted Academic Renewal at UVU will have the credit hours removed from their earned credits and GPA for academic purposes. However, for Satisfactory Academic Progress purposes, students are measured based on the original grades and not the changes due to academic renewal.

No exceptions shall be made to this policy. Students shall be aware that this policy may not be accepted at transfer institutions, and all credit, including those with academic renewal, may still be calculated by the transfer institution.

Academic Distinction

The Dean’s list recognizes those who have demonstrated outstanding academic performance during a term or semester. To be eligible:

1. The student must complete 12 semester hours or more in any semester and a commensurate number of hours in any term.
2. The student must earn a semester GPA of 3.6 or above.
3. The student must have a cumulative GPA of at least 2.0.

University Advanced Standing (UAS)

Definition effective as of the 2021-2022 academic year:

Before students can register for upper-division coursework (3000-level or higher), they must qualify for University Advanced Standing (UAS) by:

- Completing or being registered for Quantitative Literacy (MAT 1030 or higher).
- Completing or being registered for ENGL 2010 or equivalent.

Accreditation

Utah Valley University is accredited by the Northwest Commission on Colleges and Universities.

Accreditation of an institution of higher education by the Northwest Commission on Colleges and Universities indicates that it meets or exceeds criteria for the assessment of institutional quality evaluated through a peer review process. An accredited college or university is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the Northwest Commission on Colleges and Universities is not partial but applies to the institution as a whole. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Inquiries regarding an institution’s accredited status by the Northwest Commission on Colleges and Universities should be directed to the administrative staff of the institution. Individuals may also contact:

- Northwest Commission on Colleges and Universities
  - 8060 165th Avenue N.E., Suite 100
  - Redmond, WA 98052
  - (425)-558-4224
  - www.nwccu.org

The Northwest Commission on Colleges and Universities (NWCCU) is an independent, non-profit membership organization recognized by the U.S. Department of Education as the regional authority on educational quality and institutional effectiveness of higher education institutions in the seven-state Northwest region of Alaska, Idaho, Montana, Nevada, Oregon, Utah, and Washington.

In addition, some programs or majors have other specialized accreditation.

- Specialized Accreditation, Certification, and Approvals
  - Web: www.uvu.edu/accreditation/specialized.html

Gainful Employment information is provided in compliance with the U.S. Department of Education’s disclosure requirements for programs eligible for Title IV financial aid that prepare students for gainful employment in a recognized occupation as required in 34 CFR 668.6(b). All programs list
Introduction

the following information: CIP Code, Level of Program, Program Length, Tuition and required fees, Estimated costs for books and supplies, Debt at program completion, Program completion in Normal Time, Job Placement, and Related Occupations. Gainful Employment Program Disclosure is listed on all marketing materials for potential students.

General Education

General Education Information

Whereas a major provides students with specialized knowledge, General Education ensures that students have the breadth of knowledge that characterizes well-rounded and well-informed citizens. General Education provides the skills of analysis, problem-solving, creative thinking, and critical thinking that prepare students for an unknown and ever-changing future.

Completion of the UVU General Education requirements will fulfill the General Education requirements at all colleges and universities within the Utah System of Higher Education. However, certain majors, both at this institution and other Utah institutions, may require specific General Education courses. While UVU has not articulated these courses with higher education institutions outside the State of Utah, they will generally articulate to other regionally accredited colleges and universities in the United States. It is the responsibility of students to complete the appropriate General Education courses required by their departments regardless of the generalized list printed in this catalog.

Note: Students taking General Education courses without having declared a specific major are advised in the Academic Counseling Center, LC 402, telephone 801-863-8425. Students who have declared a specific major that is taught at UVU will be directed to the appropriate academic advisor upon completion of new student orientation and assessment activities.

Department Articulation Agreements

In addition to General Education courses, many departments have articulated specific courses that transfer to help fulfill baccalaureate degree requirements. Information concerning these courses may be obtained from UVU department advisors or the Admissions-Transfer Services Office, BA 114.

General Education Code System

General Education course designator codes (Attributes) aid students and transfer institutions to identify how General Education courses meet graduation requirements.

The following list identifies General Education core and distribution courses as they apply to the Associate in Arts/Science Degrees and Bachelor of Arts/Science Degrees, and can be used to search the registration menu:

- AS - American Institutions
- BB - Biology
- CC - English Composition
- FF - Fine Arts
- HH - Humanities
- LH - Foreign Language
- PP - Physical Science
- SS - Social Science
- QL – Quantitative Literacy
- XF - Must be taken with another course to equal FF (see department)

General Education Requirements

Interstate Passport

The Interstate Passport enables successful transfer of a block of lower-level general education learning to other institutions participating in the Interstate Passport Network. Students who complete their Passport at Utah Valley University will not be required to repeat or take additional course work to meet lower-division general education requirements in the Passport’s nine areas when they transfer to any other Passport institution. Utah Valley University will begin transcripting the Interstate Passport following the Fall 2016 semester. Students with an interest in achieving the Passport should see our website at http://www.uvu.edu/transfer/passport.html and contact their Advisor.

Associate in Arts/Science Degrees and Bachelor of Arts/Science Degrees

These requirements satisfy the General Education requirements for both the Associate in Arts and the Associate in Science Degrees, as well as the Bachelor of Arts and the Bachelor of Science Degrees at UVU, taking into account adjustments that may be required by academic departments to
fulfill their specific needs. Honors courses with the same prefix and number also satisfy distribution requirements. Total core and distribution is 35 credits.

**Core Requirements**

These courses provide basic skills in logic, math, written and oral communications, health, and fitness.

<table>
<thead>
<tr>
<th>Complete the following for 6 credits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2010/201H Intermediate Writing Academic Writing and Research</td>
</tr>
<tr>
<td>and</td>
</tr>
<tr>
<td>ENGL 1010/101H Introduction to Academic Writing</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>ENGH 1005 Literacies and Composition Across Contexts</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Complete one of the following for either 3 or 4 credits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students should enroll in Mat 1030/MAT 1035 unless STAT 1040/STAT 1045 is recommended for their major or they are planning to enroll in courses requiring MATH 1050 as a prerequisite.</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning/MAT 1035 Quantitative Reasoning with Integrated Algebra</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics/STAT 1045 Introduction to Statistics with Algebra</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>MATH 1050 College Algebra/MATH 1055 College Algebra with Preliminaries</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>MATH 1090 College Algebra for Business</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>One MATH course that requires MATH 1050 as a prerequisite</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>QL 1900 – awarded based on achievement of the following test scores:</td>
</tr>
<tr>
<td>AP Calculus AB: 3 or higher</td>
</tr>
<tr>
<td>AP Calculus BC: 3 or higher</td>
</tr>
<tr>
<td>AP Statistics: 3 or higher</td>
</tr>
<tr>
<td>IB HL Math: 5 or higher</td>
</tr>
<tr>
<td>CLEP Pre-Calculus: 50 or higher</td>
</tr>
<tr>
<td>CLEP Calculus: 50 or higher</td>
</tr>
<tr>
<td>ACT Mathematics: 26 or higher</td>
</tr>
<tr>
<td>SAT Mathematics: 660 or higher</td>
</tr>
<tr>
<td>QL1900 satisfies the General Education math requirement; however, certain majors may require MAT 1030/1035, STAT 1040/1045, or MATH 1050 to be taken as a prerequisite for a higher level Math course.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Complete the following for 5 credits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050/205G/205H Ethics and Values</td>
</tr>
<tr>
<td>and</td>
</tr>
<tr>
<td>HLTH 1100 Personal Health and Wellness</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>EXSC 1097 Fitness for Life</td>
</tr>
</tbody>
</table>

**American Institutions**

<table>
<thead>
<tr>
<th>Complete one of the following for 3 credits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1000 American Heritage</td>
</tr>
<tr>
<td>HIST 2700 and 2710 US History to/since 1877</td>
</tr>
</tbody>
</table>
Distribution Requirements

(18 CREDITS)

From Science, Humanities, Fine Arts, and Social/Behavioral Science

**A. SCIENCE**

All majors must complete **one course of Biology, one course of Physical Science, and one additional course from either of those two areas** for a minimum total of 9 credits. One lab course is recommended.

### Biology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1010/101H</td>
<td>General Biology</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 1011</td>
<td>Introduction to Bioinformatics</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 1070</td>
<td>Genetics</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 1200</td>
<td>Prehistoric Life</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 1500</td>
<td>Biological Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 1610</td>
<td>College Biology I</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL 204R*</td>
<td>Natural History Excursion*</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 2500</td>
<td>Environmental Biology</td>
<td>3.0</td>
</tr>
<tr>
<td>BOT 2050</td>
<td>Field Botany</td>
<td>3.0</td>
</tr>
<tr>
<td>BOT 2100</td>
<td>Flora of Utah</td>
<td>3.0</td>
</tr>
<tr>
<td>BOT 2400</td>
<td>Plant Kingdom</td>
<td>4.0</td>
</tr>
<tr>
<td>BTEC 1010</td>
<td>Fundamentals of Biotechnology I Career Survey</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 2020</td>
<td>Nutrition Through Life Cycle</td>
<td>3.0</td>
</tr>
<tr>
<td>ZOOL 1090</td>
<td>Intro to Human Anatomy/Physiology</td>
<td>3.0</td>
</tr>
<tr>
<td>ZOOL 2320/232H</td>
<td>Human Anatomy</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*May be used as the third science only

### Physical Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 1040/104H</td>
<td>Elementary Astronomy</td>
<td>3.0</td>
</tr>
<tr>
<td>ASTR 1070/107H</td>
<td>Cultural Astronomy in Our Lives</td>
<td>3.0</td>
</tr>
<tr>
<td>ASTR 1080</td>
<td>Life in the Universe</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM 1010</td>
<td>Introduction to Chemistry</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM 1110</td>
<td>Elem Chem for Health Sciences</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 1210</td>
<td>Principles of Chemistry I</td>
<td>4.0</td>
</tr>
<tr>
<td>ENVT 1110</td>
<td>Intro to Environmental Mgmt</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 1010/101H</td>
<td>Introduction to Geology</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 1030</td>
<td>Natural Disaster &amp; the Environment</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 1040</td>
<td>The Dinosaurian World</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 1050</td>
<td>Geology of National Parks</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 1080</td>
<td>Introduction to Oceanography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 204R</td>
<td>Natural History Excursion*</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 1000</td>
<td>Intro to Physical Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 1800</td>
<td>Mapping the World with Geospatial Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>METO 1010</td>
<td>Introduction to Meteorology</td>
<td>3.0</td>
</tr>
</tbody>
</table>
### Introduction

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>METO 1060</td>
<td>Fundamentals of Weather Forecasting</td>
<td>3.0</td>
</tr>
<tr>
<td>PHSC 1000</td>
<td>Survey of Physical Science</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYS 1010</td>
<td>Elementary Physics</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYS 1700</td>
<td>Descriptive Acoustics</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYS 1750</td>
<td>The Acoustics of Music</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYS 1800</td>
<td>Energy You and Environment</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYS 1850</td>
<td>Aviation Physics</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYS 2010</td>
<td>College Physics I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 2020</td>
<td>College Physics II</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 2210</td>
<td>Physics for Scientists/Engineers I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 2220</td>
<td>Physics for Scientists/Engineers II</td>
<td>4.0</td>
</tr>
<tr>
<td>TECH 1010</td>
<td>Understanding Technology*</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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### B. HUMANITIES

One course minimum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMST 2000</td>
<td>Introduction to American Studies</td>
<td>3.0</td>
</tr>
<tr>
<td>ASL 202G</td>
<td>Intermediate American Sign Language II</td>
<td>4.0</td>
</tr>
<tr>
<td>CHIN 202G</td>
<td>Intermediate Chinese II</td>
<td>4.0</td>
</tr>
<tr>
<td>CINE 2150</td>
<td>Critical Intro Cinema Studies</td>
<td>3.0</td>
</tr>
<tr>
<td>CINE 217G</td>
<td>Race Class and Gender in US Cinema</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 1020</td>
<td>Public Speaking</td>
<td>2.0</td>
</tr>
<tr>
<td>COMM 1500</td>
<td>Introduction to Mass Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>COMM 217G</td>
<td>Race Class and Gender in US Cinema</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 2030</td>
<td>Writing for Social Change</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 2130</td>
<td>Science Fiction</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 2150</td>
<td>Critical Intro Cinema Studies</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 217G</td>
<td>Race Class and Gender in US Cinemas</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 2200</td>
<td>Introduction to World Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 2210</td>
<td>Introduction to Folklore</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 2230/223H</td>
<td>Myths/Legends in Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 2250/225H</td>
<td>Creative Process/Image Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 2300/230H</td>
<td>Shakespeare</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 2310</td>
<td>Technical Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 2510</td>
<td>American Literature before 1865</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 2520</td>
<td>American Literature after 1865</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 2600</td>
<td>Critical Introduction to Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 2610</td>
<td>British Literature before 1800</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 2620</td>
<td>British Literature after 1800</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 376G</td>
<td>World Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>FREN 202G</td>
<td>Intermediate French II</td>
<td>4.0</td>
</tr>
<tr>
<td>GER 202G</td>
<td>Intermediate German II</td>
<td>4.0</td>
</tr>
<tr>
<td>GRK 2020</td>
<td>Intermediate Greek II</td>
<td>4.0</td>
</tr>
<tr>
<td>HUM 1010/101G/101H</td>
<td>Humanities Through the Arts</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 2010 /201G/201H</td>
<td>World History Through Arts I</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 2020/202G/202H</td>
<td>World History Through Arts II</td>
<td>3.0</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>HUM 2100</td>
<td>Adventures Ideas Through 1500</td>
<td>3.0</td>
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<td>HUM 2200</td>
<td>Adventures Ideas After 1500</td>
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</tr>
<tr>
<td>HONR 2000</td>
<td>Ancient Legacies</td>
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<td>JPNS 202G</td>
<td>Intermediate Japanese II</td>
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<td>PHIL 1000</td>
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<tr>
<td>PHIL 1250</td>
<td>Intro to Logic and Critical Thinking</td>
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<tr>
<td>PHIL 1610</td>
<td>Intro To Western Religions</td>
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<td>PHIL 1620</td>
<td>Intro To Eastern Religions</td>
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</tr>
<tr>
<td>PHIL 2110</td>
<td>Ancient Greek Philosophy WE</td>
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<td>PHIL 2130</td>
<td>Medieval Philosophy</td>
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<td>PHIL 2150</td>
<td>Early Modern Philosophy</td>
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<td>PORT 202G</td>
<td>Intermediate Portuguese II</td>
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<tr>
<td>RUS 202G</td>
<td>Intermediate Russian II</td>
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</tr>
<tr>
<td>SPAN 202G</td>
<td>Intermediate Spanish II</td>
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**C. FINE ARTS**

One course minimum

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>ART 1010</td>
<td>Introduction to Visual Arts</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 1020</td>
<td>Basic Drawing Non Majors</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 1050</td>
<td>Photography I</td>
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</tr>
<tr>
<td>ART 1340</td>
<td>Sculpture I</td>
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</tr>
<tr>
<td>ART 1350</td>
<td>Ceramics I</td>
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</tr>
<tr>
<td>ART 1650</td>
<td>Watermedia I</td>
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</tr>
<tr>
<td>ART 2100</td>
<td>Teaching Art for Children</td>
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</tr>
<tr>
<td>ART 2815</td>
<td>Historical Architecture and Interior Design</td>
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</tr>
<tr>
<td>ARTH 2710</td>
<td>History of Art to the Renaissance</td>
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</tr>
<tr>
<td>ARTH 2720</td>
<td>History of Art from the Renaissance</td>
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</tr>
<tr>
<td>CINE 2311</td>
<td>Film History I</td>
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<tr>
<td>DANC 1010</td>
<td>Dance as an Art Form</td>
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<tr>
<td>DANC 2100</td>
<td>Teaching Dance for Children</td>
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<tr>
<td>DANC 2110</td>
<td>Orientation to Dance</td>
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<td>EGDT 1720</td>
<td>Architectural Rendering</td>
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<td>MUSC 1010</td>
<td>Introduction to Music</td>
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<td>MUSC 102G</td>
<td>Introduction to World Music</td>
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<td>MUSC 1030</td>
<td>American Popular Music</td>
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<td>MUSC 1100</td>
<td>Fundamentals of Music</td>
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<td>THEA 1013</td>
<td>Introduction to Theater WE</td>
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<td>THEA 1023</td>
<td>Introduction to Film</td>
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<td>THEA 1033</td>
<td>Acting I</td>
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<td>THEA 2100</td>
<td>Teaching Theatre For Children</td>
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<td>THEA 2311</td>
<td>Film History I</td>
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### D. SOCIAL/BEHAVIORAL SCIENCE

One course minimum

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ANTH 101G</td>
<td>Social/Cult Anthropology</td>
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<tr>
<td>ANTH 1020</td>
<td>Biological Anthropology</td>
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<tr>
<td>ANTH 103G</td>
<td>World Prehistory</td>
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<tr>
<td>ANTH 180G</td>
<td>Introduction to American Indian Studies</td>
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<tr>
<td>BESC 107G</td>
<td>Multicultural Societies</td>
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<tr>
<td>CJ 1010</td>
<td>Introduction to Criminal Justice</td>
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<tr>
<td>COMM 1050</td>
<td>Introduction to Speech Communication</td>
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<tr>
<td>COMM 2110</td>
<td>Interpersonal Communications</td>
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<tr>
<td>ECON 1010</td>
<td>Economics As Social Science</td>
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<td>ECON 2010</td>
<td>Principles of Economics I</td>
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<td>ENTR 2500</td>
<td>Creativity and Entrepreneurial Thinking</td>
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<tr>
<td>ES 1150</td>
<td>Community Emergency Preparedness</td>
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<tr>
<td>FAMS 1150</td>
<td>Marriage and Relationship Skills</td>
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<td>FIN 1060</td>
<td>Personal Finance</td>
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<td>GEOG 130G</td>
<td>Survey of World Geography</td>
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<td>GEOG 1400</td>
<td>Introduction to Human Geography</td>
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<td>GEOG 2000</td>
<td>Sustainability and Environment</td>
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<td>GEOG 2100</td>
<td>Geography of U.S</td>
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<td>HIST 1500</td>
<td>World History to 1500</td>
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<tr>
<td>HIST 151G</td>
<td>World History from 1500 to the Present</td>
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<td>HIST 1700/170H</td>
<td>American Civilization**</td>
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<td>HIST 1740</td>
<td>US Economic History**</td>
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<tr>
<td>HIST 2700/270H</td>
<td>US History to 1877**</td>
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<td>HIST 2710/271H</td>
<td>US History since 1877**</td>
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<tr>
<td>HLTH 2600</td>
<td>Drugs, Behavior and Society</td>
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<td>HLTH 2800</td>
<td>Human Sexuality</td>
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<tr>
<td>MGMT 1010</td>
<td>Introduction to Business</td>
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<td>MGMT 2030</td>
<td>Women in Business</td>
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<tr>
<td>MGMT 2110</td>
<td>Interpersonal Communication</td>
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<td>POLS 1000</td>
<td>American Heritage**</td>
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<tr>
<td>POLS 1010</td>
<td>Introduction to Political Science</td>
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<td>POLS 1100</td>
<td>American National Government**</td>
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<tr>
<td>POLS 2100</td>
<td>Intro to International Relations</td>
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<td>POLS 2200</td>
<td>Intro to Comparative Politics</td>
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<td>PSY 1010/101H</td>
<td>General Psychology</td>
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<td>PSY 1100</td>
<td>Human Development: Life Span</td>
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<td>PSY 2710</td>
<td>Introduction to Brain and Behavior</td>
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<tr>
<td>PSY 2800</td>
<td>Human Sexuality</td>
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<tr>
<td>SOC 1010/101H</td>
<td>Introduction to Sociology</td>
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<td>SOC 107G</td>
<td>Multicultural Societies</td>
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<td>SOC 1200</td>
<td>Sociology of the Family</td>
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<tr>
<td>TECH 2000/200G</td>
<td>Technology and Human Life</td>
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</table>

**If not used as Core Requirement**
Additional Guidelines for Completion of the Associate in Arts/Science Degrees

The Associate in Arts and the Associate in Science Degrees are designed to complete General Education requirements and could complete lower division pre-majors for baccalaureate degrees at UVU or other colleges or universities.

The General Education courses shown above constitute the majority of the credits required for these degrees. In addition to the General Education requirements, these degrees require 25 additional credit hours.

Associate in Arts Degrees require 8 hours of these 25 hours to be from the same recognized foreign language.

See your specific academic department for further information on appropriate course work to complete a pre-major or the remaining 25 hours. The Academic Counseling Center (LC 402) has some specific outlines available to transfer to other institutions.

Associate in Applied Science Degrees

This is a general outline. Refer to the department or Graduation Office for specific requirements. A total of 16 credit hours is required. Students must have a minimum of three credits in each area, except “F” (Physical Ed/Health/Safety/Environment).

A. ENGLISH

Complete for 3 credits:

ENGL 1010/101H Introduction to Writing
or
MKTG 2200 Business Communication

B. MATHEMATICS

Complete for 3 credits:

MAT 1000 Integrated Beginning and Intermediate Algebra
or
MAT 1010 Intermediate Algebra
or
Any Higher Mathematics course
or
Any approved Departmental Mathematics Course

C. HUMANITIES/FINE ARTS/FOREIGN LANGUAGE

Complete for 3 credits:

PHIL 2050/205G/205H Ethics and Values (Highly recommended)
or
Any approved Humanities, Fine Arts, or Foreign Language Distribution Course

D. SOCIAL AND BEHAVIORAL SCIENCE

Complete for 3 credits:

MGMT 3000 Organizational Behavior
or
Any approved Behavioral Science, Social or Political Science Distribution Course

E. BIOLOGY OR PHYSICAL SCIENCE

Complete for 3 credits: any approved Biology or Physical Science Distribution Course

F. PHYSICAL ED/HEALTH/SAFETY OR ENVIRONMENT

Complete for 1 credit: any approved Physical Education, Health, Safety or Environment Course

Transfer Information

For students transferring to four-year Institutions, Colleges, and Universities in the Utah System of Higher Education.
Introduction

UVU courses numbered 1000 or above will transfer within the Utah System of Higher Education. However, the application of these courses toward graduation is determined by academic departments of receiving institutions.

For students transferring to colleges and universities in the Utah System of Higher Education before earning an Associate in Arts or an Associate in Science Degree, or a Bachelor of Arts or a Bachelor of Science Degree, a certified letter verifying completion of the UVU General Education requirements may be requested from the Graduation Office. This letter will cause the gaining institution (run by the State of Utah) to accept the completion of UVU General Education requirements as fulfilling all of the General Education/Liberal Education requirements of the gaining institution.

Note: Completion of an Associate in Arts/Science Degree waives only General Education requirements. It does not waive the necessary hours to graduate. A student transferring to another institution should check with that institution to see how their credits have been accepted toward their degree.

Private, Parochial, or Out-of-State Colleges & Universities

Since these schools are not bound by Utah State Regent's policies, colleges/universities outside the Utah System of Higher Education may have specific requirements and may not accept all courses available at UVU. Students should contact the institution they are transferring to in order to determine how their credits will be accepted.

Brigham Young University

Brigham Young University accepts the Associate in Arts/Science Degrees for completion of its General Education requirements. Courses with grades of "D+" or lower will not transfer. Some departments at BYU have specific General Education course requirements that will still need to be taken at BYU. Individual departments at BYU should be consulted for exceptions.

Note: BYU has a limit on the number of transfer students admitted.

General Information

Utah Valley University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age (40 and over), disability, veteran status, pregnancy, childbirth, or pregnancy-related conditions, citizenship, genetic information, or other basis protected by applicable law, including Title IX and 34 C.F.R. Part 106, in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. Inquiries about nondiscrimination at UVU may be directed to the U.S. Department of Education’s Office for Civil Rights or UVU’s Title IX Coordinator / Director of Equal Opportunity at 801-863-7999 – TitleIX@uvu.edu – 800 W University Pkwy, Orem, 84058, Suite BA 203.

Mission

Utah Valley University is an integrated university and community college that educates every student for success in work and life through excellence in engaged teaching, services, and scholarship.

Our Values

UVU’s culture supports our mission of student success. Student success encompasses both terminal degrees and the holistic education of students, and we believe that we can fulfill this mission best in an environment that allows all individuals to thrive personally and professionally. To this end, UVU, operates in accordance with three core values: exceptional care, exceptional accountability, and exceptional results.

Exceptional Care

We invite people to “come as you are” and let them know that “UVU has a place for you.” Care means that we strive always to “see” the person in front of us — their strengths and weaknesses, struggles and triumphs, past and potential, and inherent dignity and worth. This does not mean that we set low expectations or make excuses for poor efforts. Instead, our commitment to exceptional care means that we set the bar high and provide challenging, honest conversations and feedback because we are deeply invested in seeing every member of our community succeed.

Exceptional Accountability

We are strongly committed to working ethically and effectively. We approach each situation from a position of integrity, knowing that everything we do can help or hinder a positive student experience. We honor the resources and mandates we have been entrusted with and strive always to do our best to honor that trust. We respect each member of our community, seek to understand and fulfill our responsibilities, and recognize both individual and collective successes.

Exceptional Results

We are committed to creating opportunity systematically for as many people as possible. Our engaged curricula, programs, and partnerships address the intellectual and practical needs of our service area and the larger community. We seek to prepare our students to thrive in a rapidly changing economy and an interdependent, complex world. We aspire to greatness in all that we do, while also measuring progress against rigorous metrics that show our students are becoming competent and ethical professionals, lifelong learners, and engaged citizens.
Action Commitments and Objectives

Include

Through open admission and other practices, UVU provides accessible and equitable educational opportunities for every student who wants to receive a rewarding postsecondary education.

- Objective 1: UVU integrates educational opportunities appropriate to both community colleges and universities.
- Objective 2: UVU provides accessible, equitable, and culturally diverse learning experiences and resources for students of all backgrounds, including those historically underrepresented in higher education.
- Objective 3: UVU fosters an inviting, safe, and supportive environment in which students, faculty, and staff can succeed.

Engage

UVU delivers rigorous, meaningful, and experiential learning opportunities driven by a shared responsibility for student success.

- Objective 1: UVU faculty, staff, and students practice excellent, engaged teaching and learning activities as a community of scholars, creators, and practitioners.
- Objective 2: UVU develops relationships and outreach opportunities with students, alumni, and community stakeholders.
- Objective 3: UVU employees demonstrate a commitment to student success, professionalism, ethics, and accountability.

Achieve

UVU champions a university experience that helps students realize their educational, professional, and personal aspirations.

- Objective 1: UVU supports students in completing their educational goals.
- Objective 2: UVU students master the learning outcomes of the university and their programs.
- Objective 3: UVU prepares students for success in their subsequent learning, professional, and civic pursuits.

Roles

As a regional state university, Utah Valley University:

Provides quality academic learning opportunities for students through programs at the certificate, associate, baccalaureate, and graduate levels. To encourage responsible citizenship, emphasis is placed on engaged teaching and learning as well as scholarly work, research, creative achievements, career and technical education and community and professional engagement.

Provides access to higher education and offers a broad range of opportunities from developmental education through honors programs. The institution provides services designed to meet the educational and personal needs of students, to foster student success, to prepare students for meaningful lifework, and to provide access through a variety of modalities, including satellite campuses and the use of technology.

Promotes economic and cultural development to contribute to the quality of life of the region and state. The institution fosters economic development and provides a talent-force to meet the needs of a dynamic economy by offering credit and non-credit programs and services for individuals and organizations. UVU provides cultural experiences that enrich the community and offer significant and varied opportunities for continuous learning.

Historical Development

Utah Valley University was established as Central Utah Vocational School in September 1941 with the primary function of providing war production training.

Post-war training needs found the school offering programs throughout the region and at the Utah County Fairgrounds. The three school districts within Utah County combined efforts to purchase a thirteen-acre site close to Provo High School.

In 1963, the name was changed to Utah Trade Technical Institute to emphasize its growing role in technical training. The name change to Utah Technical College at Provo in 1967 was accompanied by the authority to award the Associate in Applied Science Degree. The Associate in Science Degree was added in 1972.

The initial 185-acre Orem Campus was dedicated in 1977. In 1987, the name was changed to Utah Valley Community College and the Associate in Arts degree was added by the Utah State Board of Regents.

In 1993, the name was changed to Utah Valley State College reflecting the change in mission to offer high demand baccalaureate degrees.

The Utah State Legislature approved, in February 2007, a name change to Utah Valley University that became effective July 1, 2008. The Utah State Board of Regents approved the corresponding mission change in December 2007 to give authority to offer master level degrees; this also became effective July 1, 2008.

Accreditation

Utah Valley University is accredited by the Northwest Commission on Colleges and Universities.

Accreditation of an institution of higher education by the Northwest Commission on Colleges and Universities indicates that it meets or exceeds criteria for the assessment of institutional quality evaluated through a peer review process. An accredited college or university is one which has
Confidentiality of Records Policy

Utah Valley University is concerned for the confidentiality of student academic records, and a reasonable balance between the obligation of the institution for the instruction and welfare of the student and its responsibility to society. The University will make every effort to maintain student academic records in confidence by keeping information from individuals who are not authorized to receive it or who might use it for illegitimate purposes. The policy also reflects the efforts of the University to comply with the provisions of the Family Educational Rights and Privacy Act of 1974.

Upon presentation of appropriate identification and under circumstances which preclude alteration or mutilation of records, students will be able to inspect all records relating to themselves which are not considered by the University to be private records of University Personnel. A student is entitled to an explanation of any recorded data and may initiate action leading to a hearing, if necessary, to correct or expunge information he or she considers inaccurate or misleading.

Faculty and administrative officers who have a legitimate need to use student records will be allowed access to such records, as needed without prior permission from the student. A request from an educational institution to which the student has applied for admission, or from an institution or agency, from which the student is seeking financial assistance will be granted without written permission of the student. Similarly, data will be furnished to university accrediting bodies and governmental officials without written permission of the student.

Other Important Student Information

Student Right to Know

Utah Valley University hosts information regarding the Student Right-to-Know and Campus Security Act of 1991 on the HEA Student Consumer Information website. The Student Right-to-Know Act of 1991 requires all colleges and universities participating in Federal Student Aid Programs to disclose campus security policies, crime statistics, and information on students receiving athletically-related student aid, graduation rates, and other basic information about the University. To access a copy of the current Campus Security Report please visit www.uvu.edu/police.

Alcohol, Tobacco & Drugs

Utah Valley University, historically and at present, seeks to encourage and sustain an academic environment that promotes the health, safety, and welfare of all members of its community. In keeping with these objectives, alcoholic beverages, unlawful drugs, or other illegal substances shall not be consumed, used, carried, sold, or unlawfully manufactured on any property or in any building owned, leased, or rented by UVU, or at any activity sponsored by the University. (UVU Policy 157)

Any individual known to be in violation will be subject to University disciplinary action and to substantial legal sanctions pursuant to Local, County, State and Federal laws.

Smoking is prohibited in all University buildings and concourses. (UVU Policy 158)

All students can access a copy of the University Drug Policy online each semester at www.uvu.edu/wellness/aboutus/drug-policy.html. It explains the policy and University sanctions that may follow as a result of inappropriate drug and or alcohol use and the known health risks associated with inappropriate use.

Introduction

available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the Northwest Commission on Colleges and Universities is not partial but applies to the institution as a whole. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Inquiries regarding an institution’s accredited status by the Northwest Commission on Colleges and Universities should be directed to the administrative staff of the institution. Individuals may also contact:

- Northwest Commission on Colleges and Universities
- 8060 165th Avenue N.E., Suite 100
- Redmond, WA 98052
- (425)-558-4224
- www.nwccu.org

The Northwest Commission on Colleges and Universities (NWCCU) is an independent, non-profit membership organization recognized by the U.S. Department of Education as the regional authority on educational quality and institutional effectiveness of higher education institutions in the seven-state Northwest region of Alaska, Idaho, Montana, Nevada, Oregon, Utah, and Washington.

In addition, some programs or majors have other specialized accreditation.

- Specialized Accreditation, Certification, and Approvals
- Web: www.uvu.edu/accreditation/specialized.html

Gainful Employment information is provided in compliance with the U.S. Department of Education’s disclosure requirements for programs eligible for Title IV financial aid that prepare students for gainful employment in a recognized occupation as required in 34 CFR 668.6(b). All programs list the following information: CIP Code, Level of Program, Program Length, Tuition and required fees, Estimated costs for books and supplies, Debt at program completion, Program completion in Normal Time, Job Placement, and Related Occupations. Gainful Employment Program Disclosure is listed on all marketing materials for potential students.
No student information other than directory information will be given to any third party (except those mentioned above) without written consent of the student, and then only those records accessible to the student. The term party is construed to include parents, employers, government agencies, or any other people or organizations. Parents or guardians may have access to grade reports of a student’s activity if the parents establish to the satisfaction of the University that they are providing one-half or more of the student’s support. Court orders and subpoenas for records will be referred to and acted upon according to the directions of the Registrar. The University will make a reasonable effort to notify the student prior to release of information in response to subpoenas or court orders prior to actual submission of the material.

Directory information will be released to news media and to others upon request.

Directory information is defined as follows:

- Name of student
- Student identification number
- Telephone number of student
- University student email address
- Photographs
- Participation in officially recognized activities and sports
- Weight and height of members of athletic teams
- Hometown city and state of student
- Verification of current enrollment
- Dates of enrollment
- Degrees conferred, dates, major field of concentration and honors received

Students may request, at any time, through the University Registrar’s office.

**Civil Rights**

Utah Valley University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age (40 and over), disability, veteran status, pregnancy, childbirth, or pregnancy-related conditions, citizenship, genetic information, or other basis protected by applicable law in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. The following office has been designated to handle inquiries regarding non-discrimination: EOAA/Title IX – 801-863-5704 – 800 W University Pkwy, Orem, 84058, Suite BA 203.

Complete policies and procedures regarding Civil Rights (UVU Policies 152, 153, 154, 157, 158, 160, 161 162, 165) can be found at [www.uvu.edu/policies](http://www.uvu.edu/policies), then click on Policy Manual.

**Policy**

The University prohibits all forms of protected class discrimination, harassment, and retaliation that violate Title VII of the Civil Rights Act of 1964 (Title VII), Title IV of the Higher Education Amendments Act of 1972 (Title IV), Title VI of the Higher Education Amendments Act of 1972 (Title VI), or related applicable laws. The University shall respond promptly and effectively to reports of protected class discrimination, harassment, and retaliation and shall take appropriate action to stop and prevent the recurrence of such conduct on the complainant and/or the university community.

**Prohibited Conduct**

Violations of policy 165 include acts of protected class discrimination, harassment, and retaliation within the meaning of Title VII, Title IV, Title VI, or related applicable laws. The University shall respond promptly and effectively to reports of protected class discrimination, harassment, and retaliation and shall take appropriate action to stop and prevent the recurrence of such conduct on the complainant and/or the university community. The University shall take steps to prevent retaliation and shall take strong, responsive action to threats or acts of retaliation. Individuals who, in bad faith, deliberately make false or malicious accusations of violation of this policy shall be subject to disciplinary action, up to and including termination of employment and/or expulsion from the University. A finding of no violation by the investigator(s) does not in itself constitute proof of a false or malicious accusation. The University may discipline any person who is found to have violated this policy.

**Freedom of Speech and Peaceful Assembly**

**Policy**

Because free expression and the free exchange of ideas are central to the goals of a university, Utah Valley University is committed to the principles of free speech and assembly guaranteed by the United States Constitution and the Utah Constitution, and in accordance with generally accepted concepts of academic freedom. The University is committed to protecting and enhancing the free exchange of ideas and to artistic expression, the right to free speech, and academic freedom in the University and on the university campus without prior restraint or censorship, subject to limitations on unlawful/unprotected speech and to clearly stated, reasonable, and nondiscriminatory rules regarding time, place, and manner.

**Preparation Strategies**

- Plan your peaceful assemblies through the Dean of Students Office
- Reserve an appropriate location from the list below
- Schedule appropriate amplification, if necessary
- Contact University Police for traffic and crowd control, if necessary
- Post fliers and/or cardboard signs according to the University Signage Policy
- Pay rental charges, if required
- Commit to obey local, state and federal laws and University policies
- Agree not to disrupt the educational process of the University
Prohibitions

- Disruption or obstruction of university functions, organized meetings, or other assemblies in such a way as to invade the rights of others to assemble and the rights of speakers to free expression
- Violence
- Assemblies inside buildings where minors or vulnerable populations are predominantly present
- Damage to University or private property
- Use of administrative or academic offices
- Jeopardizing public order or safety
- Interference with entrances and exits to buildings or the normal flow of pedestrian or vehicular traffic
- Interference with classes and teaching, and activities related to teaching or research

Penalties

Persons violating the time, place, and manner restrictions relating to protests and demonstrations may be subject to arrest or other action authorized by law after notice is given of the restrictions being violated and the personas refuse to cease and desist. Student violations of UVU Policy 541 Student Code of Conduct may face disciplinary action.

Locations Appropriate For Peaceful Assembly

Locations are subject to availability; some locations may not be available at all times due to previously scheduled engagements. Speakers may speak in any outdoor area, as long as such speech does not violate time, place, and manner restrictions in UVU policy 161 section 4.8.6.

Locations include rooms inside the Sorensen Student Center, Grand Ballroom, Theater, Centre Stage or meeting rooms; Athletic fields/Lawn areas; Events Center: Arena, or Presidential Level; Student Life and Wellness Center Plaza; and Pope Science Courtyard

Scheduling

Although it is not necessary for persons planning protests, demonstrations, or speakers to obtain prior permission from the University, the University encourages such personals to contact the campus Event Services to reserve or schedule a place in advance to ensure availability.

UVU Event Services, SC 103, 801-863-8612
Events Center Scheduling, EC Concourse, 801-863-8767

Sound equipment shall be used only at volume levels that so not disrupt or disturb teaching, research, or other duly authorized meetings or activities at the University, and in accordance with city ordinances.

Utah Safety Law

In 1965 the Utah State Legislature passed a law requiring every student, teacher, and visitor in any public or private school to wear industrial quality eye protection devices while participating in or observing the following: industrial educational activities involving hot or molten metals; operation of machinery or equipment that may throw particles of foreign matter into the eyes; heating, treating, tempering, or kiln firing of industrial materials; chemistry or physics laboratories when using caustic, explosive, or hot chemicals, liquids, or solids.

Graduation

Graduation Office
Office: BA 113
Telephone: 801-863-8438

Utah Valley University offers the following degrees: Master of Accountancy (MAcc), Master of Business Administration (MBA), Master of Computer Science (MCS), Master of Education (M.Ed.), Master of Science in Nursing (MSN), Master of Public Service (MPS), Master of Science in Cybersecurity (MS), Master of Social Work (MSW), Baccalaureate degrees, Associate in Applied Science (AAS), Associate in Arts (AA), Associate in Pre-Engineering (APE), Associate in Science (AS), Associate in Science in Business (ASB), Associate in Science in Nursing (ASN); Diplomas, and Certificates are also offered.

General Graduation Requirements

Students are expected to familiarize themselves with the rules and regulations of both the University and their specific majors. Detailed information concerning graduation requirements is available in this catalog as part of department descriptions. Responsibility for satisfying all graduation requirements rests upon the student. UVU reserves the right to change graduation requirements at any time.

The University confers degrees, diplomas, or certificates upon students who meet both the General Education requirements of the University and the specific requirements of one of the academic departments.

Credit Requirement

<table>
<thead>
<tr>
<th>Certificate/Degree</th>
<th>Number of Semester Credit Hours Required for Completion</th>
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<tbody>
<tr>
<td>Certificates of Proficiency</td>
<td>Less than 30 credit hours</td>
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</table>
Certificate/Degree | Number of Semester Credit Hours Required for Completion
---|---
Certificates of Completion | 30–33 credit hours
Diploma | 50 credit hours
Associate in Applied Science Degree | 63–69 credit hours (some disciplines may require more due to specialized accreditation)
Associate in Arts or Associate in Science degree | 60–63 credit hours
Specialized Associate’s degrees | 68-85 credit hours
Baccalaureate degree (Bachelor of Arts, Bachelor of Science, and Professional Bachelor’s degrees) | 120–126 credit hours, 40 of which shall be upper-division credits (level 3000 and above)
Graduate Certificate | 9–29 credit hours

Please see the Graduate Studies section of the catalog regarding credit requirements for master degree programs.

**Grade Point Average Requirement**

A minimum cumulative grade point average (GPA) of 2.0 (C) is required for graduation. In some programs specific course grades below 2.0 will not be accepted for graduation and some programs require a higher cumulative grade point average (see individual program requirements).

**Graduation Catalog Requirement**

Candidates for graduation will be held to the requirements of the catalog under which they were admitted. Students have a maximum of 7 years to complete bachelor degrees and 5 years to complete associate degrees; 6 years are allowed for master degrees. In the case of bachelor degree programs, the seven year limit begins when a student is formally matriculated into the program. When students take longer than the given years to complete, they must have attended UVU during the Catalog Year to use those degree requirements towards graduation.

Programs that are no longer being offered may not be pursued by students who were not admitted or formally matriculated in that program during the accepted period of time. Students may not combine portions of different catalogs to fulfill graduation requirements. Once a catalog is selected, students must abide by all the graduation requirements specified within that catalog. Minors can only be sought if offered during that catalog year. Please see the Graduate Studies section of the catalog regarding catalog year requirements for master degree programs.

**Global/Intercultural Requirement**

The Global/Intercultural requirement is a graduation requirement at the baccalaureate degree level. Courses that may be used to complete this requirement will be coded with a GI course attribute. The purpose of the Global/Intercultural requirement is to assist students to become better prepared to understand and participate in the global and cultural interdependencies that characterize our world. Students who take courses at another university and want to use them for the Global/Intercultural requirement must petition through the GI committee. See the Registrar’s Office (BA 113) for further information. For a complete listing of the courses offered at UVU that fulfill this requirement, see the Course Descriptions section in the back of this catalog for course numbers ending in “G”.

**Residence Requirement**

Credit hours in residency (UVU credits) at a UVU campus, satellite, or branch campus, or through distance education or concurrent enrollment, are required for all certificates, diplomas, and degrees. Minimum hours are as follows:

1. Certificates of proficiency require 25% of total credit hours (rounded up);
2. Certificates of completion require 10 credit hours;
3. Associate degrees and diplomas require 20 credit hours;
4. Baccalaureate degrees require 30 credit hours (10 credits of those 30 shall have been completed within the last 45 credit hours earned for the degree).

**Multiple Degrees**

Students may earn multiple certificates. Students may earn only one academic associate degree from Utah Valley University; either an Associate in Science or an Associate in Arts. With some exceptions, students may earn multiple Associate in Applied Science (AAS) degrees, specialized associate degrees, and baccalaureate degrees.

A second bachelor’s degree may be awarded when all requirements for both degrees are satisfied, along with the following:

1. All UVU General Education requirements are satisfied;
2. Thirty semester hours beyond the original degree are completed;
3. Twenty semester hours of the 30 hours in item 2 above must be completed at UVU (resident hours);
4. Students must receive Dean’s approval for a second bachelor’s degree.

**Dual Baccalaureate Majors (One degree– with two majors)**

A baccalaureate degree with dual majors may be awarded when students complete all requirements for two degrees, but has not met the required 30 semester hours for a second degree beyond the original degree. The student shall receive a single baccalaureate degree; the diploma and transcript shall list both majors.
Introduction

Other information regarding the dual major:

1. Students apply for graduation for one degree, and only one degree type, such as a Bachelor of Arts, or a Bachelor of Science;
2. In order to be awarded a dual major, both majors must be completed during the semester when (or prior to) applying for graduation;
3. If Students have already graduated in one of the majors, they may not apply for a dual major;
4. After being awarded a dual major degree, students may not apply for graduation for one of the dual majors separately;
5. Students shall have no more than three course substitutions from the required courses for the two majors combined.
6. Students may not receive minors in either major, but may be awarded a minor from another area if all requirements are met.
7. Credits shall not exceed the 160 credit hour limit with the two combined majors.

Degree Requirements

Master Degrees
Please see the Graduate Studies section of the catalog regarding degree requirements.

Bachelor of Arts/Science Degrees
Graduation requirements for the Bachelor of Arts/Science Degrees are:

• Completion of a minimum of 120 semester credits, or more if specified by program requirements;
• Overall grade point average of 2.0 (C) or above. Departments may require a higher GPA;
• Residency hours - minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours;
• At least 40 credit hours in upper division courses;
• Completion of General Education requirements. See General Education section above for specific courses required for graduation;
• Completion of specific departmental (major) requirements;
• Completion of Global/Intercultural Requirement course.

For a Bachelor of Arts Degree in programs offering the degree, students must complete 16 credit hours of course work from one language to include the 1010, 1020, 2010 and 202G levels, or transferred equivalents. Some ESL course work may be used to fulfill this requirement. See the ESL department for specific details.

Note: Academic departments may require specific General Education courses in addition to major requirements.

Multiple Emphases
Students may earn additional emphases, with departmental approval under a specific bachelor's degree by completing the requirements for those emphases. Additional emphases shall appear on transcripts, but no additional diplomas will be awarded.

Associate in Arts/Science Degrees*
Graduation requirements for the Associate in Arts/Science Degrees are:

• Completion of a minimum of 60 or more semester credits;
• Overall grade point average of 2.0 (C) or above. Departments may require higher GPA;
• Residency hours - minimum of 20 credit hours earned through course attendance at UVU;
• Completion of General Education requirements. See General Education section for specific courses required for graduation;
• Completion of specific department (major) requirements.

Note: Academic departments may require specific General Education courses in addition to major requirements.

*The Associate in Arts Degree differs from the Associate in Science Degree in that a minimum of 8 credits must be earned in the same Foreign Language.

Language Proficiency
A second language is required to obtain the Associate in Arts Degree. This language must be different from the student’s native language. Language proficiency may be demonstrated by any one of the following methods:

• Eight credits of the same language taken at UVU or transferred from another college; or
• Application of foreign language challenge credit as described in the Foreign Language Challenge Procedures (available from the Languages Department Chair);
• Language credit does not apply to the General Education Humanities Distribution area (except for any 202G course) but will apply as elective credit in the Associate in Arts/Science Degree and as Humanities credit for the Associate in Applied Science Degree.

Associate in Applied Science Degrees
Graduation requirements for the Associate in Applied Science Degrees are:

• Completion of a minimum of 63 semester credits;
• Overall grade point average of 2.0 (C) or above;
• Residency hours - minimum of 20 credit hours earned through course attendance at UVU;
• Completion of department General Education requirements;
Introduction

• Completion of specific department major requirements.

Diplomas
Diplomas require a minimum of 50 credits in a specialty area. Some programs offering Associate in Applied Science Degrees also offer diplomas. Not all departments offer diplomas. See specific department program listings for details.

Certificates of Completion
Certificates of Completion require a minimum of 30 credit hours. Not all departments offer a Certificate of Completion. See specific department program listings for details.

Certificates of Proficiency
Certificates of Proficiency vary in credit hours from 3-29 credit hours. Not all departments offer a Certificate of Proficiency. See specific department program listings for details.

General Graduation Information

Application for Graduation
Graduation is not automatic. Prospective graduates must complete the online Graduation Application on the graduation website (www.uvu.edu/graduation). Applicants may also be required to fill out additional forms/surveys. The application must be completed by the Application deadline as listed below:

Application Deadlines
• Fall semester: First Friday in October
• Spring semester: First Friday in February
• Summer semester: First Friday in June

Graduation applications are processed each semester. Diplomas are mailed to graduates after final grades are reviewed and graduation requirements are verified as completed for all students at the end of the semester. Students failing to complete graduation requirements by the following dates for which they have applied must reapply for graduation. REQUIREMENT DEADLINES:
• Fall semester: January 15th
• Spring semester: May 31st
• Summer semester: September 15th

Requirements may include, but are not limited to: all current semester grades, all “I” (Incomplete) and “M” (Missing) grades, grade changes, challenge and experiential credit, AP (Advanced Placement) credits, CLEP (College Level Examination Program) and DSST (DANTES Subject Standardized Tests) credit, transferred credit, required testing and departmental exceptions. All these items MUST be completed and submitted by the above deadlines. Failure to comply will cause the student to have their graduation declined for that semester. Students will then have to apply for another graduation semester.

Commencement
Commencement exercises are held once each year at the end of spring semester. Students who have completed their graduation requirements during the summer, fall, or spring of that academic year are invited to participate. Attendance is strongly encouraged, but not mandatory.

Financial Holds
Candidates for graduation who owe money to UVU will not receive proof of graduation, diplomas or official transcripts, until all debts are paid.

Graduation with Distinction
Honors at graduation are available to students who meet the following minimum cumulative grade point averages: (Honors designations are computed on hours completed; 20 hours minimum for associate degrees; 30 hours minimum for bachelor's degrees.) These Distinctions are awarded and based only upon GPA and are not related to participation in the UVU Honors Program. Graduate students do not qualify for honors distinction.

Associate Degrees
• Honors GPA 3.60
• High Honors GPA 3.80

Bachelor's Degrees
• Cum Laude GPA 3.60
• Magna Cum Laude GPA 3.80
• Summa Cum Laude GPA 3.90

Note: Please contact the Honors Program (LC 204) for information about the UVU Honors Program.
Valedictorians
Each of the Colleges and Schools of the University will select a valedictorian from a list supplied by the Graduation Office of candidates graduating with honors during the academic year. The status of valedictorian is determined by each school and college, based on competitive criteria. Please check your school or college for requirements and details.

Student Code of Conduct

Purpose of this Policy
To advance the educational objectives of Utah Valley University, this Student Code of Conduct (“Student Code”) establishes standards and procedures necessary to maintain a community conducive to UVU’s three core values: exceptional care, exceptional accountability and exceptional results. This Student Code supports the intellectual, personal, social, and ethical development of all members of the community by promoting the values of civility, integrity, inclusivity, respect, and responsibility. Students at the university are expected to uphold these values through the exercise of their personal freedom and reasoned discourse. This Student Code also establishes the conduct expectations for students of Utah Valley University, outlines students’ rights and due process procedures for addressing alleged student violations of university policies, delineates the range of disciplinary sanctions for violations and establishes procedures for appeal of disciplinary sanctions.

Policy
For a full version of this UVU Policy 541, please visit www.uvu.edu/policies, and click on Policy Manual.

Behavior which violates the Student Code of Conduct should be reported to the office of Student Conduct 801-863-5841 (non-emergency) or Campus Police 801-863-5555 (emergency).

4.1 Scope of this Policy
4.1.1 This policy applies to all students admitted to the University or enrolled in university courses, either full-time or part-time, and to all student conduct that occurs on university campus or at university-sponsored activities. It also applies to off-campus conduct, not otherwise protected by law, that adversely affects the university community and/or fulfillment of the University’s mission, values, and operations. The Dean of Students or designee shall decide whether the Student Code shall be applied to misconduct occurring off-campus on a case-by-case basis. If a student withdraws from the University while a disciplinary matter is pending, the University may continue to apply this Student Code and its processes for resolving that specific disciplinary matter.

4.1.2 The University may respond to allegations of student misconduct at any time even if the alleged misconduct occurs before classes begin, after classes end, during breaks within the semester, or during the break between semesters. The University may also institute its conduct proceedings after a degree is awarded in the event misconduct is subsequently discovered. Where warranted, the University retains the right to revoke an awarded certificate, diploma, or degree.

4.1.3 All academic and behavioral misconduct complaints are subject to the due process procedures for investigation, resolution, and appeals as set forth in this Student Code, with the exception of sexual misconduct and protected class discrimination and harassment, which are exclusively subject to the procedures found in UVU Policy 162 Sexual Misconduct and UVU Policy 165 Discrimination, Harassment, and Affirmative Action.

4.2 Student Responsibilities and Rights
4.2.1 Nothing in this policy shall be interpreted to deny the rights of individuals protected by the U.S. Constitution, including their protected rights to freedom of speech and association, including as set forth in UVU Policy 161 Freedom of Speech.

4.2.2 The University expects all students to engage in responsible conduct, to obey the law, to maintain integrity, and to uphold high standards of individual honesty in all their actions and academic work. The University promotes an environment that values inclusivity and civility, and encourages students to be thoughtful and respectful in their dealings with other members of the campus community.

4.2.3 Students are responsible for knowing the information and procedures in this policy and other university policies applicable to students. The University publishes this Student Code in its catalog, online and in print, and in the University’s Online Policy Manual. The University reserves the right to modify this policy. Alleged policy violations are governed by the policy version in place at the time of the alleged violation. However, Student Code procedures effective at the time of the reporting of the alleged violation will govern the investigation and resolution.

4.2.4 Students shall promptly participate in good faith in informal or formal student conduct investigations related to this policy. If the complainant or respondent fails to participate, the Student Conduct Office may make findings without the response of that party, potentially leading to an unfavorable outcome for that party.

4.2.5 As members of the university community, students have certain rights in addition to their constitutional rights and protections. Students should respect each other’s rights. The University will endeavor to safeguard these rights for all.

4.2.5.1 Academic Evaluation. Students have the right to performance evaluation based on a written syllabus, to accurate information regarding changes in course programs or university requirements and reasonable accommodation of those already enrolled in a program or class(es), to receive academic credit and/or degrees when all specified requirements and coursework have been satisfied, and to make academic appeals
including but not limited to grade changes and withdrawals. See UVU Policy 152 Accommodations for Individuals with Disabilities; UVU Policy 523 Grading; UVU Policy 601 Classroom Instruction and Management; UVU Policy 635 Faculty Rights and Professional Responsibilities.

4.2.5.2 Due Process. Students have the right to be protected from unreasonable decision-making by the University and to have access to University policies that affect them. The University is committed to providing students with balanced and fair systems of misconduct resolution. This Student Code is administrative in nature and is not a civil or criminal proceeding. Students are presumed not responsible for misconduct until responsibility is established by a preponderance of the evidence. Students' non-participation or silence during any process under this policy will not be used against them, but the University's decisions will nonetheless be made on the available information. The University complies with Utah State Board of Regents' Policy R256 Student Disciplinary Processes, which sets forth minimum standards of due process for student disciplinary processes related to behavioral (non-academic) misconduct matters that may result in either expulsion or a minimum ten-day suspension.

4.2.5.3 Freedom from discrimination. Students have the right to be treated fairly and with dignity regardless of race, color, national origin, age (40 and over), marital status, sex, sexual orientation, gender identity, gender expression, pregnancy, childbirth, or pregnancy-related conditions, disability, religion, genetic information, height, weight, veteran status, or other bases protected by applicable federal, state, or local law, and as revised in UVU Policy 165 Discrimination, Harassment, and Affirmative Action and UVU Policy 162 Sexual Misconduct.

4.2.5.4 Freedom from sex discrimination and sexual misconduct. Students have the right to be free from sex discrimination in UVU educational programs and activities, including but not limited to educational programs, employment, admissions, and university-sponsored activities, consistent with Title IX of the Educational Amendments of 1972. Sexual misconduct, including sexual harassment, sexual violence, sexual assault, relationship violence, and stalking, are types of sex discrimination prohibited by Title IX and/or UVU Policy 162 Sexual Misconduct. Students also have the right to a prompt and equitable response from the University when the University learns of any form of sex discrimination.

4.2.5.5 Freedom of Speech. Students have the right to free exchange of ideas and to artistic expression, the right to free speech, open discussion, inquiry, and academic freedom in the University and on the university campus without prior restraint or censorship, subject to limitations on unlawful/ unprotected speech and to clearly stated, reasonable, and nondiscriminatory rules regarding time, place, and manner. See UVU Policy 161 Freedom of Speech.

4.2.5.6 Ombuds. Students have the right to access the University's Ombuds Office for consultation and assistance resolving matters of personal and school issues, including but not limited to concerns and conflicts regarding other students, faculty, university policies and processes, and housing disputes.

4.2.5.7 Privacy, Confidentiality, and Records. Students have the right to be protected from the University's improper disclosure of a student's educational record consistent with the Family Educational Rights and Privacy Act of 1974 and UVU Policy 542 Student Records Access. Students also have the right to inspect all records pertaining to themselves, which are not considered by the University to be private records of university personnel. Students are entitled to request corrections or expungement to educational records they consider inaccurate or misleading. Also see UVU Policy 635 Faculty Rights and Professional Responsibilities.

4.2.5.8 Student Government and Student Organizations. Students have the right to form and operate an organized student association or club within the guidelines prescribed by the University. Students also have the right to representation through student government on university committees, councils, commissions, and other formally constituted bodies that make general policy and procedure decisions directly affecting students or that govern student activities and conduct. See UVU Policy 532 Associated Student Organization and Club Membership.

4.3 Standards of Student Conduct

4.3.1 Students are individually responsible for their conduct. In addition, student organizations may be held collectively responsible for the conduct of their student members during student organization activities or while acting on behalf of or at the request of the student organization.

4.3.2 Students shall not engage in academic or behavioral (non-academic) misconduct as described in this section. Categories of prohibited misconduct include but are not limited to the following:

4.3.2.1 Abuse of student conduct process. Abuse or interference with university student conduct processes, including but not limited to falsification, distortion, or misrepresentation of information; failure to provide information or documents, or destruction of information or documents during the student conduct process; attempting to discourage an individual's honest participation in or use of the student conduct process; verbal or physical distortion, or misrepresentation of information; failure to provide information or documents, or destruction of information or documents during the student conduct process.

4.3.2.2 Academic misconduct and other acts of dishonesty. All forms of academic misconduct and other acts of dishonesty, including but not limited to cheating, plagiarism, fabrication, and/or possessing or providing to the University any false, falsified, altered, forged, or misleading information, materials, documents, accounts, records, identification, or financial instruments.

4.3.2.3 Alcohol. Use, possession, distribution, being under the influence of alcoholic beverages or paraphernalia on the university campus or at university-sponsored events or activities, and other conduct prohibited by UVU Policy 157 Alcoholic Beverages, Unlawful Drugs, and other Illegal Substances. Alcoholic beverages may not, in any circumstance, be used by, possessed by, or distributed to any person under 21 years of age.

4.3.2.4 Animals. Animals on campus, or other conduct prohibited in UVU Policy 160 Animals on Campus. Service dogs or miniature horses that are trained to perform work or tasks related to a disability are permitted.

4.3.2.5 Damage or destruction. Unauthorized damage to or destruction of university property or the personal property of a member of the university community.

4.3.2.6 Discrimination. Protected class discrimination as defined by UVU Policy 165 Discrimination, Harassment, and Affirmative Action, including but not limited to negative or adverse conduct towards university employees or students in the terms or conditions of employment; university admission or education; access to university programs, services, or activities; or other university benefits or services on the basis of inclusion or
perceived inclusion (in the case of disability, sexual orientation, gender identity, or gender expression) in one or more of the protected classes that has the effect of denying or limiting participation in university employment or in a university program or activity.

4.3.2.7 Disruptive behavior. Disruption, obstruction, or interference with university operations, teaching, learning, research, administration, other university activities, and/or other authorized non-university activities that occur on the university campus as defined in section 3.22.

4.3.2.8 Drugs. Use, possession, distribution, manufacturing, or being under the influence of illegal drugs or other controlled substances or drug paraphernalia, including abuse, misuse, sale, or distribution of prescription or over-the-counter medications, and other conduct prohibited in UVU Policy 157 Alcoholic Beverages, Unlawful Drugs, and other Illegal Substances.

4.3.2.9 Federal, state, or local law or regulation. Violation of federal, state, or local law or regulations that adversely affects the university community and/or the pursuit of its objectives.

4.3.2.10 Fire safety. Violation of local, state, federal, or university fire policies, including but not limited to causing a fire that damages university or personal property or that causes injury to another; improper use of university fire safety equipment; or tampering with or improperly engaging a fire alarm or fire detection/control equipment while on university property.

4.3.2.11 Gambling. Activities that violate state or federal law regarding gambling, including but not limited to risking anything of value for a return or risking anything of value upon the outcome of a contest, game, gaming scheme, or gaming device when the return or outcome is based upon an element of chance; and is in accord with an agreement or understanding that someone will receive something of value in the event of a certain outcome. Gambling includes a lottery and fringe gambling.

4.3.2.12 Harm to person(s). Intentional or reckless physical harm, threats, intimidation, hazing, bullying, cyberbullying, coercion, retaliation, and/or other conduct, including assisting in the foregoing, that threatens or endangers the health or safety of any person. Additionally, participation or cooperation by person(s) being harmed does not excuse the violation.

4.3.2.13 Misuse of computing facilities. Unauthorized use of computing facilities and other conduct prohibited in UVU Policy 441 Appropriate Use of Computing Facilities, including but not limited to attempting to gain access to any system or account without authorization from a system administrator; sharing passwords or accounts; copying or changing system files or software without authorization from a system administrator; using destructive or invasive software; displaying images, sounds, or messages that are obscene where others may be affected by them; consuming inordinate amounts of system resources; crashing machines or systems deliberately; and using the university computing facilities for disruptive or illegal activities.

4.3.2.14 Other policies. Violation of other written university policies, guidelines, or practices.

4.3.2.15 Retaliation. Reprisals or retaliation as defined in this Student Code and other applicable policies.

4.3.2.16 Sexual misconduct. Sexual misconduct, as defined by UVU Policy 162 Sexual Misconduct, includes but is not limited to acts and attempts of dating and relationship violence; domestic violence; discrimination based on sex, pregnancy, pregnancy-related conditions, sexual orientation, gender identity, or gender expression; hostile environment based on sex, pregnancy, pregnancy-related conditions, sexual orientation, gender identity, or gender expression (including intimidation and hazing/bullying); sexual harassment; sexual assault (including nonconsensual sexual contact or nonconsensual sexual intercourse); sexual exploitation (including engaging in sexual trafficking); and stalking.

4.3.2.17 Theft. Intentional or unauthorized taking of, attempted taking of, or maintaining possession of university property or others' personal or public property, including goods, services, or other valuables.

4.3.2.18 Tobacco. Smoking, vaping, or using electronic cigarettes or tobacco inside campus buildings and within 25 feet of entrances, windows, and air intake vents, or other conduct prohibited in UVU Policy 158 Tobacco.

4.3.2.19 Trademark/copyright violations. Unauthorized use (including misuse) of university or organizational names, logos, images, or other university trademarks or copyrighted materials, or other conduct prohibited by UVU Policy 135 Use of Copyrighted Materials.

4.3.2.20 Unauthorized access. Trespassing, misuse of access devices or privileges to university property, or unauthorized entry to or use of buildings or offices, including unauthorized possession, duplication, or use of any means of access to any university building (i.e., keys, proximity cards, etc.), or propping open or other unauthorized use of alarmed doors for entry into or exit from a university building.

4.3.2.21 Weapons. Unauthorized possession or use of a firearm, ammunition, explosives, dangerous weapons, or dangerous chemicals on university property. UVU students must adhere to Utah law regarding the lawful possession of permitted and concealed firearms on public university campuses.

4.3.2.22 Wheeled devices. Skateboards, roller blades, roller skates, bicycles, hoverboards, and similar wheeled devices are not permitted inside university buildings or on any stairways, structures, landscaped areas, or concourses, or other areas as prohibited by UVU Policy 403 Restrictions on the Use of Skateboards, Roller Blades, Roller Skates, Bicycles, Motorcycles, and Hoverboards.

### 4.4 Non-University Legal Cases

4.4.1 University student conduct processes may apply to a student charged with conduct that potentially violates both the law and this Student Code (that is, if both possible violations result from the same alleged conduct). Processes under this Student Code may be carried out before, after, or at the same time as civil or criminal cases at the discretion of the Dean of Students or designee or as otherwise required by law. Determinations made or sanctions imposed under this Student Code are not subject to change when civil or criminal charges addressing the same alleged incident or act are dismissed, reduced, or resolved in favor of or against the student.

4.4.2 When a student is charged by federal, state, or local authorities with a violation of law, the University will not request special consideration for that individual because of their status as a student. If the alleged offense is also being processed under the Student Code, the University may advise off-campus authorities of the existence of the Student Code and of how such matters are typically handled within the university community.
The University will cooperate with law enforcement and other agencies in the enforcement of criminal law on campus and in the conditions imposed by criminal courts for the rehabilitation of student violators (provided that the conditions do not conflict with campus policies or sanctions).

### 4.5 Reporting, Investigations, and Disciplinary Proceedings

4.5.1 Reports of any suspected or alleged violation(s) of the Student Code shall be made to the Student Conduct Office.

4.5.2 In responding to reports of alleged violations of the Student Code, the University shall provide prompt, fair, and impartial investigations and disciplinary processes. During these processes, both complainant and respondent shall be provided equitable rights and opportunities, including notice and an opportunity to be heard, as outlined in section 5.0.

4.5.3 The University may sanction any student who violates this Student Code and other applicable university policies, up to and including expulsion from the University.

4.5.4 If a student has been disciplined for serious violations of institutional policies regarding sexual misconduct, sex discrimination, harassment, or other serious misconduct resulting in suspension or expulsion, the University may enter a notation on the student's transcript in accordance with the Family Educational Rights and Privacy Act.

4.5.5 The University prohibits retaliation as defined in this policy. The University shall take steps to prevent retaliation and respond to threats or acts of retaliation, up to and including expulsion from the University. Individuals who deliberately make false or malicious accusations of violation of this Student Code or other applicable university policies may be subject to disciplinary action, up to and including expulsion from the University. However, a no-violation finding does not in itself constitute proof of a false or malicious accusation.

### 4.6 Interim Measures

4.6.1 The Director of Student Conduct or designee may institute interim measures before the final resolution of an alleged incident of misconduct, including ensuring the safety and well-being of members of the campus community, preservation of university property, or if the student poses an ongoing threat of disruption or interference with the operations of the University. Interim measures may include but are not limited to

- 4.6.1.1 University issued no-contact directive(s);
- 4.6.1.2 Providing an escort;
- 4.6.1.3 Making reasonable adjustments to exams, assignments, and/or providing alternative course completions options in collaboration with faculty;
- 4.6.1.4 Making adjustment to class schedules, including the ability to transfer course sections or withdraw from a student course without penalty;
- 4.6.1.5 Making adjustments to living, transportation, and working situations;
- 4.6.1.6 Limiting a student’s or organization’s access to certain university facilities or activities pending resolution of the matter;
- 4.6.1.7 Interim suspension, which may include denial of access to campus (including classes) and/or all other activities or privileges for which the student might otherwise be eligible, as the Dean of Students or designee may determine to be appropriate.
- 4.6.1.8 Any measure deemed necessary and appropriate by the student conduct administrator in compliance with this policy.

4.6.2 Interim measures do not replace the student conduct process, which will still proceed in a timely manner.

### 4.7 Sanctions

4.7.1 The University may sanction any student who violates this policy, up to and including expulsion from the University. Sanctions are intended to educate students on the effects of their behavior and invoke change in future decision making. Sanctions shall be applied in a fair manner and be assigned in accordance with two criteria: (1) educational value for the student found in violation of this policy; and (2) the sanction being commensurate and consistent with the type of violation and any prior misconduct. Except in urgent circumstances where there is significant threat of harm, disruption, or of undermining the integrity of the educational environment, the student conduct administrator shall not impose irreversible sanctions (i.e., denying access to class, final exams, or other student programs).

4.7.2 One or more of the following sanctions may be imposed upon students for violation(s) of the Student Code or other university policies.

- 4.7.2.1 Academic sanctions. Sanction of academic nature including but are not limited to failing grades, reduced grades, and/or redoing academic exercises.
- 4.7.2.2 Disciplinary no-contact directive. Specified parameters restricting communicative contact and/or physical proximity with a university community member or campus entity.
- 4.7.2.3 Discretionary sanctions. Educational meetings or interventions, behavior agreements, work assignments, essays, service to the University, or other related alternative, educational and/or restorative remedies.
- 4.7.2.4 Expulsion. Permanent separation of the student from the University.
- 4.7.2.5 Fines. Fines may be imposed as published on the Student Conduct Office website.
- 4.7.2.6 Group sanctions. Sanctions imposed upon student organizations found to have violated the Student Code as listed above, including loss of all privileges or status.
4.7.2.7 Loss of Privileges. Denial of specified privileges for which the student might otherwise be eligible for a designated period of time.

4.7.2.8 Probation. A written reprimand for violation of specified standards. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to violate any university standard(s) during the probationary period. Probation may also include specific conditions that the student must meet.

4.7.2.9 Restitution. Compensation for loss, damage, or injury. This may take the form of appropriate service and/or monetary or material replacement.

4.7.2.10 Revocation or withholding of degree. Revocation or withholding award of a degree or certificate otherwise earned.

4.7.2.11 Suspension. Separation of the student from the University for a definite period of time, after which the student is eligible to return. Conditions for readmission will typically be specified at the time of the suspension.

4.7.2.12 University-sponsored housing sanctions. Removal, probation, or reassignment.

4.7.2.13 Warning. A written notice to the student that the student is violating or has violated university standards of student conduct as laid out in this policy and that the misconduct must not be repeated.

Policy

5.1 Reporting

5.1.1 While all members of the university community are encouraged to report any suspected violation(s) of the Student Code to the Student Conduct Office, university employees are required to report any suspected student violation(s) of the Student Code to the Student Conduct Office within 24 hours of learning of the alleged violation. The Student Conduct Office will then forward the report to the appropriate student conduct administrator as outlined in section 5.8.1.

5.1.2 While all members of the university community are encouraged to report any suspected violations of UVU Policy 162 Sexual Misconduct or Policy 165 Discrimination, Harassment, and Affirmative Action, university employees (except licensed counselors and health providers, as provided in Policy 162) are required to report any suspected violations of Policy 162 to the Office of Equal Opportunity and Affirmative Action/Title IX within 24 hours of learning of the alleged violation. Any reports of such violations that may be received by the Student Conduct Office will be immediately reported to the Office of Equal Opportunity and Affirmative Action/Title IX.

5.1.3 Individuals may submit reports of alleged violations of the Student Code or other university policies through several methods listed on the Student Conduct website athttps://www.uvu.edu/studentresponsibilities, including options for reporting anonymously.

5.1.4 Reports made through tip/crisis reporting methods designated on the student conduct website will be forwarded to the UVU Police, Associate Dean of Students, Director of Crisis Services, and other individuals as needed for an effective response. Each report will be individually assessed to determine the nature, severity, and likelihood of harm to members of the university community and the appropriate response.

5.2 Amnesty

5.2.1 The University encourages all community members to proactively assist others whose health or safety are at risk. The University will not pursue student conduct process against a reporting student, a complainant, a respondent, or witness for personal involvement in minor policy violations, including but not limited to the use of alcohol, marijuana or other drugs, at or near the time of the incident as long as the reporting student’s behavior did not place the health or safety of any other person at risk. The University may, however, initiate an educational discussion with any student regarding their personal involvement in minor policy violations.

5.2.2 If the same person or student organization repeatedly requests amnesty for substantially similar minor policy violations, the student conduct administrator may deny amnesty to that person or student organization.

5.3 Safe Harbor

5.3.1 Students who have a drug or alcohol addiction may be granted safe harbor from discipline. If a student self-reports their own addiction to the appropriate university officials before the threat of drug testing and/or discipline, the University may decide not to initiate a conduct complaint. A written action plan by the student may be used to track cooperation with the safe harbor program. Failure to follow the action plan may nullify the safe harbor protection and the University may initiate student disciplinary processes.

5.4 Collective Violations by Student Organizations

5.4.1 When violations of this Student Code occur at events sponsored or co-sponsored by a student organization, its officers and membership may be held collectively and/or individually responsible when:

5.4.1.1 The student organization’s leader(s) or officer(s) gave consent to, or encouraged, the behavior; or

5.4.1.2 The student organization’s leader(s) or officer(s) knew or should have reasonably known about the behavior.

5.4.2 Hearings for student organizations follow the same student conduct process as for individuals. In any such action, determinations as to violations and sanctions may be made collectively to the student organization and/or individually and will be proportionate to the involvement of each individual and the student organization.
5.5 Confidentiality and Recordkeeping

5.5.1 University personnel involved in student conduct processes shall maintain confidentiality to the extent allowed by the Utah Government Records and Management Act (GRAMA), the federal Family Educational Rights and Privacy Act (FERPA), the federal Health Information Portability and Accountability Act (HIPAA), and other applicable laws governing record protection and/or mandatory reporting.

5.5.2 The Student Conduct Office strives to maintain confidentiality throughout the investigation and appeals hearing process.

5.5.3 The Student Conduct Office is responsible for maintaining appropriate records directly related to alleged violations, investigations, findings, sanctions, etc. as described in section 5.15 If complaints are found to be without merit, records of the complaint and processes will not be entered onto a student’s disciplinary record, but the Student Conduct Office will keep record of the case in its internal databases.

5.5.4 Complainants, respondents, witnesses, and any other participants in the conduct process are prohibited from recording interviews, hearings, and other meetings before, during, and after the disciplinary process.

5.6 Support Persons and Advisors

5.6.1 As required by Utah State Board of Regents’ Policy R256 Student Disciplinary Processes, in matters of behavioral (non-academic) misconduct where the University believes in good faith, based on facts known by the University at the time or when additional facts are discovered later, that the student conduct matter may result in expulsion or a minimum ten-day suspension, the additional protections provided in this section apply. Students may waive any rights described in this section. This section does not apply to UVU Police Department law enforcement activities.

5.6.1.1 Before interviewing the student, the investigator or representative of the Student Conduct Office shall notify the student in writing of the allegations (including the time and place of the alleged misconduct, where available) made against the student and of the student’s right to have a support person or advisor throughout the process who may be, but need not be, an attorney. This notice will be given at least 24 hours before a student is interviewed about the student conduct matter. If a student wishes to seek counsel from a support person or advisor, the University shall reschedule the interview, giving the student reasonable time to obtain a support person/advisor.

5.6.1.2 In meetings and interviews under section 5.12 and section 5.13 of this policy on behavioral (non-academic) misconduct matters, student complainants and respondents may be accompanied by a support person/advisor of the student’s choice, who may be an attorney. During such meetings or interviews, the support person or advisor may only advise the student and may not actively participate in the investigation or process.

5.6.2 During any appeals hearing under section 5.14 of this policy, student complainants and respondents may each have a support person/advisor of their choice, who may be an attorney, advocate for them.

5.6.3 A support person/advisor may not be an employee of the University who would have a conflict of interest in serving in the support person/advisor role. Support persons/advisors must be willing to agree maintain the confidentiality of student conduct investigation and appeals hearing processes.

5.6.4 The University may proceed with the investigation and hearing processes in a timely fashion without the complainant or respondent if that party fails to respond or declines to participate. The University may set reasonable deadlines and move forward with processes regardless of whether a party and/or a party's support person/advisor is able to accommodate those deadlines.

5.7 Preliminary Review

5.7.1 After receiving a report of an alleged violation of the Student Code or other applicable university policies, the student conduct administrator shall promptly conduct a preliminary review to determine if interim measures are needed, if a violation of the Student Code is alleged, and if an investigation is necessary to resolve a genuine dispute of material facts.

5.7.2 If the student conduct administrator determines that no violation of the Student Code has been alleged and/or there’s no genuine dispute of material facts, the administrator shall issue a written notice of this decision to the respondent, complainant (if required by law), and the Student Conduct Office.

5.7.3 A preliminary review dismissal shall be final with no additional internal appeals available to the parties.

5.7.4 If the student conduct administrator determines that a violation of the Student Code or other policy has been alleged and that an investigation is necessary to resolve a genuine dispute of material facts, then the Administrator may proceed with an investigation of the alleged violation.

5.7.5 The student conduct administrator shall report the complaint to the Director of Student Conduct or designee.

5.7.6 At the recommendation of the student conduct administrator, the Director of Student Conduct or designee may apply an interim measure to a student or student organization or invoke other safety measures, as provided in section 4.6, pending the outcome of the investigation and subsequent proceedings.

5.7.6.1 The Dean of Students or designee will notify the student in writing of this action, including a brief description of the reason for the interim measure. When required by law, such as in sexual misconduct cases, applicable notices will be provided to both complainants and respondents. A student who receives an interim suspension may request a meeting with the Dean of Students or designee to present information and/or reasoning as to why the interim measure is inappropriate or unnecessary.

5.7.6.2 At the discretion of the Dean of Students or designee, and in collaboration with faculty and/or the appropriate academic dean(s), alternative coursework options may be approved to minimize impact on the student during any interim measure.
5.8 Delineation of Authority

5.8.1 For purposes of this policy, the Dean of Students shall delegate authority for the investigation, resolution, decision-making (including appeals), and sanctions based on the type of misconduct as defined in section 3.1 and 3.2 as follows:

<table>
<thead>
<tr>
<th>Type of Misconduct</th>
<th>Student Conduct Administrator</th>
<th>Student Conduct Appeal Decision Maker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>Faculty member of course in which misconduct occurred</td>
<td>Academic dean of college/school or designated chair of department in which misconduct occurred</td>
</tr>
<tr>
<td>Behavioral</td>
<td>Director of Student Conduct or designee</td>
<td>Dean of Students or designee</td>
</tr>
</tbody>
</table>

5.9 Informal Resolution

5.9.1 Informal resolution may include an inquiry into the facts but typically does not include an investigation. Informal resolution is flexible and includes options such as mediating an agreement between the parties, separating the parties, referring the parties to counseling programs, negotiating an agreement for disciplinary action, conducting targeted preventive educational and training programs, or providing remedies for the individual harmed by the offense. Informal resolution also includes options such as discussions with the parties, making recommendations for resolution, and conducting a follow-up review after a period of time to ensure that the resolution has resolved concerns effectively.

5.9.2 Because each alleged violation is different, the student conduct administrator shall tailor each resolution to the specific facts of the case, including determining whether the alleged violation is appropriate for informal resolution. Informal resolution may result in resolutions such as behavior agreements and/or sanctions combined with educational or restorative measures.

5.9.3 Informal resolution is encouraged to resolve concerns at the earliest stage possible with the cooperation of all parties involved. Participation in the informal resolution process is voluntary. Informal resolution may be appropriate for anonymous and/or third-party reports, or when respondents accept responsibility for their violations. Information resolution may be inappropriate when one or both of the parties are reluctant to participate in good faith, or when there are allegations of violent behavior.

5.9.4 Any unsuccessful informal resolution, including but not limited to noncompliance with the informal process, may be referred for student conduct hearing.

5.9.5 After concluding informal resolution, the student conduct administrator shall notify the complainant and respondent in writing of the resolution that was agreed upon.

5.9.6 Participation in informal resolution does not prohibit either party from terminating informal resolution and/or requesting an investigation at any point during the informal resolution process. Where a report is closed after informal resolution, the matter may later be reopened at the discretion of the student conduct administrator when requested by the complainant and/or if the student conduct administrator determines there is good cause to do so.

5.10 Investigation

5.10.1 If the student conduct administrator determines an investigation is necessary, the University shall conduct a reliable and impartial investigation by interviewing relevant witnesses, collecting relevant documentary evidence, and preparing a written summary of findings. The purpose of the investigation is to establish whether there is a reasonable basis, based on a preponderance of the evidence, for concluding that the alleged violation of the Student Code has occurred. The University reserves the right to engage an outside investigator to conduct the investigation if it is determined there is a conflict of interest or other compelling reason to do so.

5.10.2 If a student withdraws from the University before the completion of an investigation and hearing, the University may continue to investigate and apply this process for resolving the specific disciplinary matter in the student’s absence. If a respondent is found to have violated university policy, the University may restrict the respondent’s readmission on terms or under circumstances it may prescribe at the time of the finding.

5.10.3 Complainants, respondents, and witnesses shall be treated with respect throughout the investigation process, disciplinary process, and other proceedings.

5.10.3.1 Accordingly, the University endeavors through this policy and diligent effort to secure the following for complainants and respondents:

5.10.3.1.1 Reasonably prompt and equitable resolution of allegations for respondents and complainants,

5.10.3.1.2 Freedom from retaliation for making a good faith report or for participating in any investigation or proceeding under this policy.

5.10.3.1.3 Timely and equal access to allegations for respondents and complainants, and the opportunity to respond to information that will be used against them in any disciplinary proceeding.

5.10.3.1.4 The opportunity for complainants and respondents to offer information, present evidence, and identify witnesses during an investigation.

5.10.3.1.5 Interim measures made available for complainants, respondents, and witnesses, and the opportunity to request modifications necessary for physical and/or emotional safety.

5.10.3.1.6 Timely notice of meetings where complainants’ and respondents’ presence is necessary.

5.10.3.1.7 Simultaneous notification to complainants and respondents, in writing, of the results of any proceedings.

5.10.3.1.8 The opportunity for complainants and respondents to articulate concerns or issues about proceedings under this policy.
5.13 Student Conduct Hearing

5.13.1 Allegations of misconduct and/or sanctions not resolved during the pre-hearing meeting will be referred to a student conduct hearing, which will be scheduled as promptly as possible after the pre-hearing meeting. The student conduct administrator may delay the hearing if further investigation is needed or other circumstances require a delay. Hearing proceedings may be conducted over the course of multiple meetings.

5.13.2 The participating parties will receive notice of hearing meetings and access to all evidence to be considered at the hearing at least five school days in advance. If additional violations are later alleged, a further notice shall be provided to the complaining and responding students.

5.13.3 Student conduct hearings will be conducted according to the following procedures:

1. The student conduct administrator will conduct the student conduct hearing with the respondent. The complainant and/or others will be invited to attend the hearing. If either party fails to attend the hearing without good cause and without prior notice to the student conduct administrator, the hearing may proceed. Neither party is required to participate in the hearing for the hearing to proceed. The University reserves the right to modify hearing procedures to protect the safety of all parties involved.

2. Student conduct hearings and outcomes will be shared with the parties to the extent allowed by law, but will otherwise remain confidential.

3. Student conduct hearings will be conducted by the student conduct administrator.

4. In behavioral (non-academic) misconduct matters, the complainant and respondent have the right to be assisted by a support person/advisor of their choice during the Student Conduct Hearing and during any subsequent appeal hearings. Parties must notify the student conduct administrator of their support person/advisor at least five school days in advance of the hearing.

5.11 Notices to Complainants and Respondents

5.11.1 The student conduct administrator will give written notice to:

5.11.1.1 Complainant(s) of their options to report to other campus and community authorities as applicable, when complainants allege a violation of the Student Code to the student conduct administrator.

5.11.1.2 Complainants and respondents, if the student conduct administrator’s inquiry advances beyond preliminary review according to section 5.7, of the time and place of alleged policy violation(s), which policies were allegedly violated, and how those policies were violated. The student conduct administrator will also provide the parties with written notice to appear at a pre-hearing meeting. If additional violations are later alleged, a further notice shall be provided to the complaining and responding students.

5.11.1.3 Complainants and respondents of their ability to participate in campus investigations and/or student conduct processes by providing relevant information and recommending relevant witnesses. If students choose to not participate in the process, the case may proceed without them and a decision may be made without any input from the student.

5.11.1.4 Complainants and respondents of their right, in behavioral (non-academic) misconduct matters, to be accompanied by a support person/advisor of their choice, who may but need not be an attorney, throughout the student conduct process. Students must notify the student conduct administrator at least five school days in advance of the pre-hearing meeting of their support person/advisor’s identity and the nature of the student’s relationship to the support person/advisor. The University has the right to disqualify a support person/advisor when their participation would create a conflict of interest or a potential disruption in the student conduct process.

5.11.1.5 Complainants and respondents of how to request information for disability accommodations and/or language translation services.

5.12 Pre-Hearing Meeting

5.12.1 The student conduct administrator will conduct a pre-hearing meeting with the respondent. The complainant and/or others may be invited to attend the same or a separate pre-hearing meeting, depending on the circumstances. If any party chooses not to attend, the pre-hearing meeting may still proceed.

5.12.2 The pre-hearing meeting will occur promptly after the student conduct administrator determines, after preliminary review, that an investigation/pre-hearing is necessary.

5.12.3 Parties will be given the opportunity to present relevant information in response to the alleged misconduct before and during the pre-hearing meeting.

5.12.4 The pre-hearing meeting and outcomes will be shared with the parties to the extent allowed by law, but will otherwise remain confidential.

5.12.5 If the respondent does not admit to the alleged violation(s) and/or the allegations cannot be resolved by mutual consent, the matter will be considered in a student conduct hearing.

5.12.6 If the respondent accepts responsibility for the violation, but sanctions are not agreed to, sanctions will be determined in a student conduct hearing.

5.12.7 During the pre-hearing meeting, investigation, or other pre-hearing processes in behavioral (non-academic) misconduct matters, the complainant’s and/or respondent’s support person/advisor may only advise the student and may not actively participate.
5.14 Appeal Process

5.14.1 Respondent(s) or complainant(s) may appeal a decision or sanction of the student conduct administrator to the Student Conduct Appeal Panel within five school days of the decision. These appeals shall be in writing and shall be delivered to the Student Conduct Office via email or postal mail. Untimely requests will not be considered absent extraordinary circumstances. Activities such as graduation, study abroad, internships/externships, business travel, or educational, sabbatical, or extracurricular activities generally do not in themselves constitute extraordinary circumstances.

5.14.2 When requesting the appeal, the respondent or complainant must identify in the written request at least one or more of the following grounds for appeal:

1. New evidence unavailable to the party during the investigation has been discovered that could substantially impact the investigation, findings, and/or resolution.
2. Substantial departure from the procedures outlined in this Student Code or that the process was unfair and/or biased, which substantially impacted the outcome of the investigation or hearing. The duration of the investigation or severity of the sanction are not considered procedural errors.
3. Findings lacked substantial evidence such that no reasonable person would reach the same conclusion as the student conduct administrator.
4. The sanction imposed is substantially disproportionate to the severity of the violation (i.e., too severe or not severe enough).

5.14.3 Unless the appeal panel (the composition of which is explained below) determines by majority vote that one or more of the grounds stated in 5.14.2 has been met and that modifications to the original decision should be recommended, the student conduct administrator’s decision or sanction shall be upheld.

5.14.4 While an appeal is pending, the student conduct administrator may impose interim measures.

5.14.5 The Student Conduct Office shall promptly convene a three-member appeal panel from the Policy 162/165 review panel pool. The appeal panel will include one faculty, one staff, and one student.

5.14.6 Panel members must be in good standing with the University and must not have any relevant conflict of interest. The student conduct administrator will notify the parties of the panel members’ identities and appeal procedures in this policy. Within 3 school days of receiving this notice, parties may request in writing that a review panel member be disqualified based on bias or conflict of interest and explain the reasons for this request. If the Student Conduct Office, in consultation with the Office of General Counsel, confirms a bias or conflict, a new panel member shall be selected.

5.14.7 The Office of General Counsel will appoint an impartial attorney to preside over the appeal hearing as hearing officer. This attorney must have no prior involvement in either advocacy or investigatory matters related to the conduct matter. The hearing officer will ensure order, fairness, due process, efficiency, and civility at the hearing, and ensure a relevant and sufficient evidentiary record for the panel’s consideration. To advance this aim, the hearing officer may set time limits proportionate to the complexity of the case; exclude irrelevant and unduly repetitious exhibits, witnesses, questions, statements, or other information; and exclude material deemed privileged under the law. Formal rules of evidence do not apply. The appeal panel shall consult with the hearing officer during the appeal process regarding legal, procedural, policy, and other questions as needed. The hearing officer, in consultation with the panel, will review and respond to any pre-hearing questions or objections from the parties related to hearing matters.

5.14.8 Once the panel is confirmed, they shall promptly determine, based on a preponderance of the evidence, whether the appeal request meets one or more criteria under section 5.14.2.
5.14.9 The Student Conduct Office shall then notify parties in writing of the appeal hearing panel’s determination and, if a hearing is warranted, of the appeal hearing date, which will be scheduled promptly.

5.14.10 The hearing officer may conduct a pre-hearing conference to formulate or simplify the issues; obtain admission of fact and documents that will avoid unnecessary proof; arrange for the exchange of proposed exhibits; outline expectations for the hearing; or agree to other matters that may expedite the orderly conduct of the hearing.

5.14.11 The complainant and respondent will be allowed to attend the entire appeal hearing, excluding deliberations. In behavioral (non-academic) misconduct matters, the complainant’s and respondent’s support person/advisor, if any, will be allowed to attend the entire appeal hearing, excluding deliberations. Admission of any other person to the appeal hearing shall be at the discretion of the hearing officer.

5.14.12 The scope of the appeal hearing and the standard of review shall be limited to those stated in section 5.14.2. Along with written notice of the hearing date, the Student Conduct Office shall provide the review panel and parties copies of a summary of the case (where applicable), written findings, sanction letter, the written request for appeal, and any additional opposition statements already provided by the parties.

5.14.13 The appeal hearing is an opportunity for the parties to be heard by the appeal panel in person about the issues and criteria being considered for the appeal, including addressing the information in the summary of the investigation, any supplemental statements or new evidence unavailable during the investigation, any written impact or mitigation statements, to identify witnesses for the panel’s consideration, and to respond to any questions from the appeal panel.

5.14.14 In behavioral (non-academic) misconduct matters, the respondent and complainant have the right to be assisted by a support person/advisor of their choice, who may be, but need not be, an attorney and who may participate during the appeal hearing. Parties must notify the Student Conduct Office at least 5 school days in advance of the hearing of their selected support person/advisor and the nature of their relationship to the support person/advisor (including whether the support person/advisor is an attorney). The University has the right to disqualify a support person/advisor when their participation would create a conflict of interest or would create the potential for disrupting the student conduct process. If the complainant or the respondent do not provide the required information about their support person/advisor at least five days in advance, the support person/advisor may attend but shall not participate in the appeal hearing. Support persons/advisors may give opening statements, advise students throughout the hearing, question witnesses as allowed by the hearing officer, and present a closing statement. Support persons or advisors may not serve as a witness. Neither the Rules of Civil Procedure nor the Rules of Evidence apply to these hearings.

5.14.15 Documents, evidence, other statements, and requests for the appearance of witnesses to be considered at the hearing may be made by the panel, respondent, complainant, and/or student conduct administrator, and must be submitted in writing to the Student Conduct Office at least 5 school days before the hearing, and must include explanations of how each document or request is relevant to the reasons for the appeal. Only witnesses and other evidence that are relevant to the section 5.14.2 bases for appeal may be considered by the appeal panel. It is the responsibility of the party requesting a particular witness to invite that witness to attend the hearing.

5.14.16 In the event that any party fails to attend the appeal hearing without good cause and prior notice to the Student Conduct Office, the appeal panel may proceed with the hearing. Neither party is required to participate in the hearing for the appeal panel to proceed.

5.14.17 The hearing, except for deliberations, will be audio recorded by the appeal panel chair, who will give the recording to the Student Conduct Office. A copy of the audio file and/or transcription will be made available for review by either party upon request. Participants are prohibited from recording interviews and other meetings before and after the hearing.

5.14.18 Each party has up to 60 minutes to present their portion of the case (opening statement, testimony of the party and party’s witnesses, questioning the other witnesses if any, and closing statement). The hearing officer will keep track of time.

5.14.19 The hearing officer will begin the hearing by asking the student conduct administrator to provide an oral summary of the investigation process, findings, and conclusions contained in the case summary and sanction letter.

5.14.20 The respondent and complainant shall each have the opportunity to make a personal statement, relevant to the scope of the appeal and bases for the appeal, including the personal impact of the alleged misconduct and/or sanction, the relief sought, and mitigating or aggravating information. In behavioral (non-academic) misconduct matters, each party’s support person/advisor shall also have the opportunity to make an opening statement relevant to the scope of appeal. Each party, or their respective support person/advisor, may call witnesses that the hearing officer deems relevant to the scope of the appeal, question witnesses through the hearing officer, present evidence, and make concluding remarks.

5.14.21 The panel may question any party and witness. Only the person to whom a question is directed may answer (for example, support persons/advisors shall not be permitted to answer the appeal panel’s questions on a party’s behalf.)

5.14.22 Panel deliberations and voting shall occur in closed session from which all other persons are excluded. The hearing officer shall be present during the deliberations but shall have no vote. A majority vote by the members of the panel who attended the hearing shall decide whether the appealing party has shown one or more bases for appeal stated in section 5.14.2.

5.14.23 The panel shall provide the Student Conduct Office a summary of their findings and recommendation(s) regarding whether and how to uphold, modify, or remedy the conduct and/or sanction decision or process within 5 school days of the appeal hearing. The Student Conduct Office will promptly provide the recommendation(s) to the appropriate dean or designee as outlined in section 5.1.1.

5.14.24 The student conduct appeal decision maker, in consultation with the Office of General Counsel as needed, is responsible for reviewing the recommendations of the appeal panel, all the information that was available to the appeal panel, and determining whether to (1) remand the investigation to the original or an alternate student conduct administrator for additional investigation; (2) affirm the student conduct administrator’s original decision; (3) adopt the sanction and resolution recommendation(s) of the appeal panel; and/or (4) determine an alternative outcome. If the matter is remanded for further investigation, the appropriate student conduct administrator shall promptly investigate and provide a written summary of the new evidence considered and/or changes to the findings, if any, to the student conduct appeal decision maker, who shall then determine sanctions or resolutions.
5.14.25 The student conduct appeal decision maker shall promptly notify the respondent and complainant in writing of their decision and the rationale for the outcome. The decision of the student conduct appeal decision maker is final, with no additional internal appeals available.

5.15 Records

5.15.1 The Student Conduct Office shall submit and maintain for confidential storage all Student Conduct Office records, including investigation findings, informal remedies, disciplinary action, and any subsequent appeals. Student Conduct records shall typically be retained for ten years after a student's graduation or withdrawal.

5.15.2 Records documenting informal resolution and or remedies and investigations resulting in no-conduct violation shall also be submitted to and maintained by the Student Conduct Office, but will not be entered into a student's permanent disciplinary record with the University.

5.15.3 Student Conduct disciplinary records are educational records as defined by FERPA and shall be private. Access shall be limited to university officers on a need-to-know basis. Disciplinary sanctions resulting from serious violations of institutional policies regarding sexual misconduct, sex discrimination, harassment, or other serious misconduct resulting in suspension or expulsion may be notated on the student’s official transcript. Additionally, the University may disclose to an alleged victim of any crime of violence or non-forcible sex offense the final results of a disciplinary process conducted by the institution against the alleged perpetrator of that crime, regardless of whether the institution concluded a violation was committed.

5.15.4 Transcript notations regarding suspension and/or expulsion shall not contain any information about the underlying conduct, but will state that formal disciplinary action resulting in suspension and/or expulsion has been imposed. If a student withdraws from the University before the completion of an investigation and prior to a final determination, an updated transcript will be sent to any transferring institutions if suspension and/or expulsion are determined.

5.15.5 Transcript notations for suspension shall remain on a student's transcript for the duration of the suspension, and typically not longer than one year after the suspension period. Transcript notations for expulsion will typically remain on a student's transcript indefinitely.

5.15.6 Students may apply to the Dean of Students or designee to have their disciplinary records and/or transcript notation removed. Factors relevant to the decision to retain or remove specific records and/or transcript notations include the amount of time that has elapsed since the infraction, whether the student has graduated, and the seriousness of the infraction and the resulting sanctions.

Student Services

Advising
See Advising.

Academic Standards
See Academic Standards.

Academic Tutoring
See Academic Tutoring.

Accessibility Services
See Accessibility Services.

Alumni Association
See Alumni Association.

Athletics
See Utah Valley Wolverines.

Campus Connection
See Campus Connection.

Campus Recreation & Wellness
See Campus Recreation.

Care about Childcare at Utah Valley University
See Care About Child Care.
Career Development Center
See Career Development Center.

Center for Global and Intercultural Engagement
See Center for Global and Intercultural Engagement.

Center for Social Impact
See Center for Social Impact.

Community Education
See Community Education.

Dean of Students/AVP Student Life
See Student Life.

Dining Services
See Dining Services.

First-Year Advising Center
See First Year Advising.

First-Year Experience (FYE)
See First Year Experience.

Fulton Library
See Fulton Library.

Housing and Residence Life
See Housing.

Intramural and Club Sports
See Intramurals.

Math Lab
See Math Lab.

National Student Exchange
See National Student Exchange.

Ombuds
See Ombuds.

Outdoor Adventure Center
See Outdoor Adventure Center.

Parking and Transportation Services
See Parking Services.

Physical Education Services (Issue Room)
Office: RL 119
Telephone: 801-863-8567
Introduction

Printing Services
See Printing Services.

Sorensen Student Center
See Sorensen Student Center.

Includes the following:

- UCCU Branch
- Computer Loft
- Campus Connection
- Dining Services
- U.S. Postal Service
- Event Services - Scheduling
- Recycling
- Campus Store
- Center for Social Impact
- Student Health Services
- Emergency Response Team
- Police
- Vice Pres. of Student Affairs
- Wolverine Tech
- Scoops
- Catering

Spirit Squad
See Spirit Squad.

Student Action Learning
See Student Action Learning.

Student Computing
See Student Computing.

Student Government
Utah Valley University Student Association (UVUSA)
See UVUSA.

Student Health Services
See Student Health.

Student Media & Publications
See Student Media.

Student Success
See Student Success.

Testing Services
See Testing Services.
TRIO Services
See TRIO.

UCCU Center
See UCCU Center.

UVU Mentors
See UVU Mentors.

UVU Campus Store
See Campus Store

UVU Clubs
See Clubs.

Veteran Success Center
See Veterans Success.

Wee Care Center
See Wee Care Center.

Women’s Success Center
See Women’s Success Center.

Writing Center
See Writing Center.

Tuition & Fees

Bursar’s Office/UVU Cashier

- Office: BA 108
- Telephone: 801-863-7200
- Fax: 801-863-8787
- E-mail: bursar@uvu.edu
- Hours: Monday - Friday 8 a.m. - 5 p.m.

Tuition & Fees Policy
Tuition and student fees are established by the Utah State Board of Regents. University Policy regarding payment of tuition and fees states that all tuition and fees assessed at the time of registration are due and payable. This policy applies to all registration periods. Tuition and other charges are subject to change without notice. Please check current policies, procedures, tuition and fee tables, payment deadlines, and other important information at uvu.edu/registration.

Early registration not covered by Financial Aid, Tuition Payment Plan, or paid in full by the published payment deadline may be purged (dropped) for non-payment. After the published deadline, Utah Valley University will not drop courses for non-payment or non-attendance. Students who change their mind are responsible to drop their own classes or file a Leave of Absence. Filing a Leave of Absence does not absolve a student of any financial obligation to the University for tuition or other charges owing or repayment of a financial aid disbursement. Students must drop or withdraw by the published 100% Refund Date or they will be responsible to pay the total tuition and fees owed. For exact refund and drop deadlines, please refer to the Registration Dates and Deadlines at uvu.edu/registration.

Students who default on all or any portion of their tuition and fees will be suspended from further registration and records activity at UVU until their accounts are paid in full.

Past due tuition accounts may be reported to a Nationwide Credit Reporting Agency, and/or turned over to an outside collection agency for collection.

Tuition Surcharge Policy
Students are encouraged to avoid accumulating credit hours beyond those needed to successfully complete their identified program of study. A student may be charged the excess credit hour surcharge for credit hours in excess of 125% of a student’s program of study. The surcharge amount
for resident students is double the current year’s resident tuition rates for the number of credit hours taken. Non-resident students will continue to pay non-resident tuition. (Board of Regents Policy R515)

For further information regarding this policy, please contact your advisor or the Graduation/Transfer Services Office.

Dropping/Withdrawing from Courses

When students enroll in a course, they are reserving a seat in the class. If a student decides not to take a class, it is the responsibility of the student to drop the course before the 100% Refund Deadline. Dropping the class before this deadline removes the charges from the student’s account and allows other students to register. Charges for classes dropped after the 100% Refund Period deadlines will remain owing and will not be credited back to the student’s account balance.

Student Financial Responsibility

Before students can register for classes they must review and agree to the terms and conditions outlined in the Student Financial Responsibility Agreement, then review and update their address and other demographic information. It is important that students carefully update their demographic information as the University periodically sends bills, refund checks, and other important correspondence through the mail.

The Student Financial Responsibility Agreement (SFRA) includes agreements to pay tuition and fees, requires adherence to payment and withdrawal deadlines, outlines the consequences of delinquencies, and presents required financial aid consents. It also provides students an opportunity to consent to electronic delivery of their 1098-T Tax Form. The following is a brief description of terms included in the SFRA. To view the SFRA document in full, visit uvu.edu/cashier/sfra.html.

• FINANCIAL RESPONSIBILITY: I agree to pay all tuition, fees, and other related costs that result from my registration and/or future drop/add activity and understand that acceptance of these terms constitutes a promise to pay agreement.

• DROPPING/WITHDRAWING FROM COURSES: I understand and agree it is my responsibility to drop my own classes if I decide not to attend, and that I must drop my classes and/or file a Leave of Absence before the 100% Refund Deadline or I will be responsible for all tuition and fees.

• CONSEQUENCES OF DELINQUENT ACCOUNT/COLLECTION: I agree to pay all charges by the published deadlines and understand the consequences of delinquencies on my account including late payment charges, registration holds, and possible collection fees.

• COMMUNICATION: I understand all correspondence from Utah Valley University will be sent to the student’s myUVU email account (including my billing statements) and therefore I am responsible for reading the e-mails I receive from UVU on a timely basis. I agree to keep my contact information current with UVU and further agree to allow Utah Valley University and its agents to contact me at any address, telephone, or cell phone number that I provide now or in the future.

• FINANCIAL AID DISBURSEMENTS: I understand that if I am expecting Financial Aid, I am responsible to follow up and ensure I have met all requirements to receive it, and acknowledge that I may be charged a late fee if my Financial Aid has not disbursed by the Late Fee Deadline. I further acknowledge that aid is contingent upon my enrollment and attendance in each class.

Tuition Refund Policy

The tuition refund policy is established by the Utah State Board of Regents and amended by each college or university to fit their programs. Utah Valley University refunds to students who withdraw from school or drop classes as follows:

Semester:

• Through the 100% refund date published on the Student Timetable...,100%
• After the 100% refund date published on the student Timetable...,0%

Exact dates for semester, block, and weekend classes can be found at uvu.edu/schedule.

Students must drop classes or completely withdraw by the published 100% Refund Deadline in order to have the charges removed from their account. Students who withdraw after that date will not receive a refund; if they have not paid, they will continue to owe the University for these charges and will be subject to collections procedures if left unpaid.

Changes in enrollment may affect Financial Aid eligibility and amounts received. Financial Aid awards may be revoked when dropping courses, thus increasing the amount owed.

A Petition to the Refund Policy Form can be obtained online at https://www.uvu.edu/registration/petitions

State-Mandated Refund Policies

Students who are living in the following states while actively participating in UVU courses will receive refunds as designated by the state departments of education.

New Mexico

5.100.3.11 PAYMENT AND REFUNDS FOR TUITION:

A. Cooling off period: Any student signing an enrollment agreement or making an initial deposit or payment toward tuition and fees of the institution shall be entitled to a cooling off period of at least three work days from the date of agreement or payment or from the date that the student first visits the institution, whichever is longer. During the cooling off period the agreement can be withdrawn and all payments shall be refunded. Evidence of
personal appearance at the institution or deposit of a written statement of withdrawal for delivery by mail or other means shall be deemed as meeting the terms of the cooling off period.

B. Refunds prior to commencing instruction: Following the cooling off period but prior to the beginning of instruction, a student may withdraw from enrollment, effective upon personal appearance at the institution or deposit of a written statement of withdrawal for delivery (as defined above), and the institution shall be entitled to retain no more than $200 in tuition or fees as registration charges.

C. In the case of students enrolling for non-traditional instruction, a student may withdraw from enrollment following the cooling off period, prior to submission by the student of any lesson materials and effective upon deposit of a written statement of withdrawal for delivery (as defined above) and the institution shall be entitled to retain no more than $200 in tuition or fees as registration charges or an alternative amount that the institution can demonstrate to have been expended in preparation for that particular student's enrollment.

D. Refunds following commencement of instruction: An institution registered with the department shall adhere to either the following tuition refund policy or to a policy established by the institution's state of residence or accrediting body.

E. A student may withdraw after beginning instruction or submitting lesson materials, effective upon appearance at the institution or deposit of a written statement of withdrawal for delivery (as defined above), and the institution shall be entitled to retain no more than $200 in tuition or fees as registration charges or an alternative amount that the institution can demonstrate to have been expended in undertaking that particular student's instruction plus a pro rata amount of any additional tuition and fees earned and paid according to the following schedule:

<table>
<thead>
<tr>
<th>Date of withdrawal as a percent of the enrollment period for which the student was obligated</th>
<th>Portion of tuition and fees obligated and paid that are eligible to be retained by the institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>within 1st 10 percent</td>
<td>10 percent</td>
</tr>
<tr>
<td>within 2nd 10 percent</td>
<td>25 percent</td>
</tr>
<tr>
<td>within 3rd 10 percent</td>
<td>40 percent</td>
</tr>
<tr>
<td>within 4th 10 percent</td>
<td>55 percent</td>
</tr>
<tr>
<td>within 5th 10 percent</td>
<td>70 percent</td>
</tr>
<tr>
<td>within 6th 10 percent</td>
<td>85 percent</td>
</tr>
<tr>
<td>thereafter</td>
<td>100 percent</td>
</tr>
</tbody>
</table>

F. "Enrollment period for which the student was obligated" means a quarter, semester, or other term of instruction followed by the institution which the student has begun and for which the student has agreed to pay tuition.

G. Tuition/fee refunds must be made within 30 calendar days of the institution receiving written notice of a student's withdrawal or of the institution terminating enrollment of the student, whichever is earlier. Upon request by a student or the department, the institution shall provide an accounting for such amounts retained under this standard within five work days.

H. The institution's payment and refund policies shall be clearly articulated in the institution's catalog and as part of all enrollment agreements.

**Special Lab & Course Fees**

Some classes require fees in addition to standard tuition and fees. The online class schedule indicates such lab, course, and materials fees.

**Late Payment Fee (Late Fee)**

Late Payment Fees are assessed each Wednesday night throughout the semester with a begin date according to the Student Timetable. Late fees are assessed on ALL unpaid account balances at 20%, not to exceed $200.00 per semester, including accounts awaiting Financial Aid.

**Late Registration Fee (Late ADD Fee)**

Special approvals are required to register late for a class. The length of time for each late registration period is relative to each part of term and is governed by the Student Timetable. Students who add classes during the late registration period must finalize the process by paying for appropriate late registration fees in addition to their tuition/fees according to the published dates on the Semester Student Timetable.

**Payment Options**

**At the Cashier Windows**

- Cash
- Check
- PIN-based debit

**Online through Tuition Payment Plus**

**Electronic Checks**

Electronic Check payments are free of charge and can be made online only with the bank routing number and account number. Payments can be made from a personal checking or savings account. Corporate checks, credit card checks, home equity, traveler’s cheques, etc. are not accepted.
Electronic check payments are processed through Tuition Payment PLUS, accessed through myUVU. Any check returned by the payor’s bank for any reason, will be considered a “dishonored” check and all penalties for a “dishonored” check will be applicable.

Credit Cards
Payments with credit cards are accepted online only and will be charged a non-refundable service fee of 2.85% (minimum $3.00). Most major credit cards are accepted including VISA, MasterCard, American Express, and Discover.

Tuition Payment Plan
The tuition payment plan allows students to pay installments on their tuition and fees over the course of the semester with a minimal fee to enroll. If students enroll before the published Payment Deadline dates, their classes will not be dropped for nonpayment. In addition, enrollment in the payment plan before the Late Fee Deadline will prevent the 20% late fee from being assessed. More information about the payment plan can be found at https://www.uvu.edu/collections/tuition.html.

Check Cashing Procedures
The University does not accept two-party checks. Checks written to UVU must have the student’s UV ID number, and the payor’s address and phone number on the face of the check.

Checks made for an amount larger than the total tuition and fees due will not be accepted.

Dishonored Checks
A dishonored check is any check returned by the payor’s bank for any reason, including, but not limited to, insufficient funds, no account, bad account, stop payment, unauthorized account, refer to maker. Checks written that later have a "stop payment" placed upon them will be considered as “dishonored”.

A service charge will be assessed on each dishonored check unless the payor can document in writing from the bank that it was a bank error.

Third Party/Sponsored Payments
Students are responsible for ensuring that appropriate documentation for a third-party or sponsored payment is submitted to the Accounts Receivable Office prior to the start of classes each semester. If paperwork cannot be submitted to the Accounts Receivable Office by the published Payment Deadline, students should consider enrolling in the Tuition Payment Plan to avoid having their classes purged (dropped) for nonpayment.

Students who are sponsored by a third-party must comply with the terms of the sponsor agreement and verify that all tuition and fees charges are paid by the sponsor. Any balance not paid by the sponsor remains the student responsibility and is subject to all payment deadlines and late fees.

If a student adjusts their registration schedule after their authorization has been received by UVU, it is the student’s responsibility to verify that any course or tuition and fee changes will be paid by the sponsor and that these changes are reported to the Accounts Receivable office for proper processing.

If the sponsor does not provide funding by the end of the semester, the student will be responsible for payment of tuition and fees.

Undergraduate Tuition and Fees
Tuition and student fees are established by the Utah State Board of Regents. Tuition and such other changes as appear in the catalog and other College publications are subject to change without notice. All tuition and fees are payable at the time of registration. Checks for more than the total tuition and fees due will not be accepted.

Fall 2023 - Summer 2024 Undergraduate Tuition

<table>
<thead>
<tr>
<th>Hours</th>
<th>Resident Hours</th>
<th>Non-Resident Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tuition</td>
<td>Fees</td>
</tr>
<tr>
<td>0.5</td>
<td>334.50</td>
<td>24.00</td>
</tr>
<tr>
<td>1.0</td>
<td>442.00</td>
<td>40.00</td>
</tr>
<tr>
<td>1.5</td>
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<td>56.00</td>
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<td>2.0</td>
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<td>2.5</td>
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<td>3.0</td>
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<td>3.5</td>
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<td>4.0</td>
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<td>4.5</td>
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<td>5.0</td>
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<tr>
<td>5.5</td>
<td>1,409.50</td>
<td>184.00</td>
</tr>
</tbody>
</table>
For each credit hour over 25, $215 per credit hour for resident and $666 per credit hour for non-resident will be assessed.

<table>
<thead>
<tr>
<th>Resident Hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours</td>
<td>Tuition</td>
</tr>
<tr>
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<tr>
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<td>7.0</td>
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<td>9.0</td>
<td>2,162.00</td>
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<td>9.5</td>
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<td>10.0</td>
<td>2,272.00</td>
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Equal Payment End

<table>
<thead>
<tr>
<th>Non-Resident Hours</th>
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</thead>
<tbody>
<tr>
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<td>12.0</td>
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</tr>
<tr>
<td>18.0</td>
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</tr>
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</table>

Equal Payment End
### Fee Amount

<table>
<thead>
<tr>
<th>Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission Application Fee</td>
<td>$35</td>
</tr>
<tr>
<td>Late Admission Application Fee (After deadline of August 1 for fall and December 1 for spring)</td>
<td>$40 ($35 + $40 late fee) total $75</td>
</tr>
<tr>
<td>Readmit Application Fee</td>
<td>$15</td>
</tr>
<tr>
<td>Readmit Late Application Fee (After deadline of August 1 for fall and December 1 for spring)</td>
<td>$40 ($15 + $40 late fee) total $55</td>
</tr>
<tr>
<td>International Student Admissions Application Fee</td>
<td>$115</td>
</tr>
<tr>
<td>International Student Semester Fee</td>
<td>$40</td>
</tr>
<tr>
<td>Late Graduation Application Fee</td>
<td>$25</td>
</tr>
<tr>
<td>Special Lab and Course Fees</td>
<td>(see online class schedule)</td>
</tr>
<tr>
<td>Challenge Credit Fee</td>
<td>$5 per credit</td>
</tr>
<tr>
<td>Challenge Credit Form</td>
<td>$15</td>
</tr>
<tr>
<td>Late Registration Fee</td>
<td>$45 per class</td>
</tr>
<tr>
<td>For each credit hour over 25 for the Academic Year:</td>
<td>(See Tuition Table)</td>
</tr>
<tr>
<td>Late Tuition Payment Fee</td>
<td>Assessed each Wednesday night on ALL UNPAID ACCOUNT BALANCES, including 2nd block, at 20%, not to exceed $200</td>
</tr>
<tr>
<td>Tuition Payment Plan - Enrollment Fee</td>
<td>$25</td>
</tr>
<tr>
<td>Tuition Payment Plan - Fee for each late installment payment</td>
<td>$25</td>
</tr>
</tbody>
</table>

### Fall 2023 - Summer 2024 Undergraduate Tuition & Fees - Online Only, Non-Residents living Outside Utah

#### Resident Hours

<table>
<thead>
<tr>
<th>Hours</th>
<th>Tuition</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td>130.00</td>
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<tr>
<td>Hours</td>
<td>Tuition</td>
<td>Total</td>
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<tr>
<td>-------</td>
<td>----------</td>
<td>---------</td>
</tr>
<tr>
<td>11.5</td>
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</tr>
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*Flat rate for non-residents living outside Utah. Does not include course fees. Excludes Aviation and Emergency Services.*

For each credit hour over 25, $260 per credit hour will be assessed.

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Introduction

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Graduate Tuition and Fees

Tuition and student fees are established by the Utah State Board of Regents. Tuition and such other changes as appear in the catalog and other College publications are subject to change without notice. All tuition and fees are payable at the time of registration. Checks for more than the total tuition and fees due will not be accepted.

Master of Education, Master of Nursing, Master of Science - Mathematics Education, Graduate Certificates

FALL 2023 - SUMMER 2024 TUITION

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For each credit hour over 25, $314 per credit hour for resident and $948 per credit hour for non-resident will be assessed.

### Master of Cybersecurity, Master of Engineering and Technology Management, Master of Public Services

**FALL 2023 - SUMMER 2024 TUITION**

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Introduction
### Introduction

Military Tuition Assistance covers a maximum of $250 per credit

#### Master of Accountancy & Master of Financial Planning and Analytics

**FALL 2023 - SUMMER 2024 TUITION**

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Military Tuition Assistance covers a maximum of $250 per credit

#### Master of Business Administration

**FALL 2023 - SUMMER 2024 TUITION**

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Military Tuition Assistance covers a maximum of $250 per credit

**Master of Social Work, Master of Arts in Marriage & Family Therapy, Master of Education in School Counseling Emphasis, Master of Clinical Mental Health Counseling Emphasis**

**FALL 2023 - SUMMER 2024 TUITION**

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Military Tuition Assistance covers a maximum of $250 per credit.

### Master of Physician Assistant Studies

**FALL 2023 - SUMMER 2024 TUITION**

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Military Tuition Assistance covers a maximum of $250 per credit.
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Web Design and Development - Web and App Development Emphasis, B.S.
Web Design and Development, A.A.S
Writing for Entertainment Media, Minor

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Earth Science Education, B.S.
Earth Science, Minor
Environmental Science and Management, B.S.
Environmental Science and Management, Minor
Environmental Studies, B.S.
Geographic Information Systems, Certificate of Proficiency
Geography, B.S.
Geography, Minor
Geology, B.S.
Physical Science, A.S.
Water and Wastewater Operations, Certificate of Completion

Education Graduate Programs
Applied Behavior Analysis, Graduate Certificate
Educational Leadership, Graduate Certificate
Master of Education - Educational Technology Emphasis, M.Ed.
Master of Education - Elementary Arts Integration Emphasis, M.Ed.
Master of Education - Elementary Mathematics Emphasis, M.Ed.
Master of Education - Elementary STEM Emphasis, M.Ed.
Master of Education - Elementary Science Emphasis, M.Ed.
Master of Education - English as a Second Language Emphasis, M.Ed.
Master of Education - Gifted and Talented Education Emphasis, M.Ed.
Master of Education - Reading I Emphasis, M.Ed.
Master of Education - Secondary Teaching Emphasis, M.Ed.
Master of Education - Teacher Leadership, M.Ed.
Master of Education in Applied Behavioral Analysis, M.Ed.
Master of Education in Higher Education Leadership, M.Ed.
Master of Education in K-12 Education Leadership, M.Ed.
Master of Education in School Counseling, M.Ed.
Secondary Teaching, Graduate Certificate

Elementary Education
Early Care and Education, Certificate of Completion
Early Childhood Education, A.S.
Elementary Education, B.S.
Pre-Elementary Education, A.S.

Emergency Services
Emergency Services - Fire Officer Emphasis, A.A.S.
Emergency Services - Firefighter/Emergency Care Emphasis, A.A.S.
Emergency Services Administration - Emergency Care Emphasis, B.S.
Emergency Services Administration - Emergency Leadership Emphasis, B.S.
Emergency Services Administration - Emergency Management and Disaster Assistance Emphasis, B.S.
Emergency Services, A.S.
Firefighter Recruit Candidate, Certificate of Completion
Homeland Security, Minor
Paramedic, Certificate of Completion
Wildland Fire Management, A.A.S.

Engineering
Associate in Pre-Engineering - Biological and Chemical Engineering Emphasis, A.P.E.
Associate in Pre-Engineering - Civil and Mechanical Engineering Emphasis, A.P.E.
Associate in Pre-Engineering - Computer and Electrical Engineering Emphasis, A.P.E.
Civil Engineering, B.S.
Computer Engineering, B.S.
Electrical Engineering, B.S.
Mechanical Engineering, B.S.
Pre-Engineering, A.S.

Engineering Technology
Automation and Electrical Technology, A.S.
Automation and Electrical Technology, A.A.S.
Electrical and Control Technology CA, Certificate of Proficiency
Mechatronics Engineering Technology, A.A.S.
Mechatronics Engineering Technology, B.S.

English and Literature
Cinema and Media Studies, Minor
Creative Writing, Minor
Editing and Document Design, Certificate of Proficiency
English - Creative Writing Emphasis, B.A.
English - Creative Writing Emphasis, B.S.
English - Literary Studies Emphasis, B.A.
English - Literary Studies Emphasis, B.S.
English - Writing Studies Emphasis, B.A.
English - Writing Studies Emphasis, B.S.
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   Exercise Science and Outdoor Recreation - Outdoor Recreation Management Emphasis, B.A..............................................
   Exercise Science and Outdoor Recreation - Outdoor Recreation Management Emphasis, B.S. ..............................................
   Exercise Science and Outdoor Recreation, A.A. ............................
   Exercise Science and Outdoor Recreation, A.S. ............................
   Exercise Science, Minor ............................................................
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   Economics, Minor .................................................................
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   Finance, Minor ....................................................................... 322
   Personal Financial Planning, B.S. .............................................
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Financial Planning and Analytics Graduate Programs ...................... 329
   Master of Financial Planning and Analytics, M.F.P.A. ..............

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History and Political Science ............................................................ 331
   American Indian Studies, Minor ..............................................
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   Chinese Commerce, Minor ....................................................
   Constitutional Studies, Minor .................................................
   History and Social Studies Education, B.S. ..............................
   History, B.A. ..........................................................................
   History, Minor ....................................................................... 331
   Peace and Justice Studies, Minor .............................................
   Political Science - American Government Emphasis, B.A........
   Political Science - American Government Emphasis, B.S.........
   Political Science - Global Politics Emphasis, B.A. .................
   Political Science - Global Politics Emphasis, B.S. .................
   Political Science - Indian Affairs Administration Emphasis, B.A..
   Political Science - Indian Affairs Administration Emphasis, B.S..
   Political Science - Peace and Justice Studies Emphasis, B.A....
   Political Science - Peace and Justice Studies Emphasis, B.S....
   Political Science - Public Administration and Public Policy Emphasis, B.A.
   Political Science - Public Administration and Public Policy Emphasis, B.S.
   Political Science - Public Law and Political Philosophy Emphasis, B.A.
   Political Science - Public Law and Political Philosophy Emphasis, B.S.
   Political Science, Minor ............................................................ 331
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I
Information Systems and Technology ............................................... 355
   Administrative Information Management, A.S. ......................
   Administrative Information Support, A.A.S..............................
   Administrative Support, Certificate of Completion .................
   Administrative Support, Certificate of Proficiency .................
   Application Development, Certificate of Proficiency ............... 355
   Applied Data Analytics, Minor ..............................................
   Business Information Technology, Minor ..............................
   Business/Marketing Education, B.S. ......................................
   Cybersecurity, Graduate Certificate ......................................
   Data Analytics, Certificate of Proficiency ..............................
   Database Administration and Data Warehousing, Certificate of Proficiency ....
   Digital Information Management CA, Certificate of Proficiency ....
   Foundations of Application Development CA, Certificate of Proficiency ....
   Information Management, B.S. .............................................
   Information Systems - Application Development Emphasis, B.S.
   Information Systems - Business Intelligence Systems Emphasis, B.S.
   Information Systems - Information Security Management Emphasis, B.S.
   Information Systems and Technology, A.A.S..........................
   Information Systems and Technology, A.S..............................
   Information Systems and Technology, Certificate of Proficiency..
   Information Systems and Technology, Minor ........................
   Information Technology - Network Administration and Security Emphasis, B.S..
   Information Technology - Network Administration and Security Emphasis, B.S.
   Information Technology, Certificate of Proficiency ................
   Network Administration, Certificate of Completion ..............
   Integrated Studies ................................................................... 355
   Integrated Studies, B.A........................................................
   Integrated Studies, B.S........................................................

L
Languages and Cultures ................................................................. 383
   ASL and Deaf Studies Education, B.A. ....................................
   Chinese Language, Minor .....................................................
   Chinese Studies, Minor .........................................................
   Deaf Studies - General Deaf Studies Emphasis, B.A. ..............
   Deaf Studies - Interpreting Emphasis, B.A. ............................
   Deaf Studies, Minor .............................................................
   French Education, B.A. ............................................................
   French, Minor .....................................................................
German, Minor...
Languages, Minor...
Latin American Studies, Minor...
Portuguese, Minor...
Russian Studies, Minor...
Spanish Education, B.A.
Spanish for the Professions--Translation/Interpreting, Minor.
Spanish, B.A.
Spanish, Minor...
Literacies and Composition...

M
Marketing...
Digital Marketing, B.S.
Digital Marketing, Certificate of Proficiency.
Marketing, B.A....
Marketing, B.S.
Marketing, Minor...
Product Management, Certificate of Proficiency...
Professional Sales, Certificate of Proficiency...
Master of Arts in Marriage and Family Therapy Graduate Programs...
Marriage and Family Therapy, M.A....
Mathematics...
Mathematics - Actuarial Science Emphasis, B.S.
Mathematics - Applied Mathematics Emphasis, B.S.
Mathematics - Mathematics Emphasis, B.S.
Mathematics Education, B.S.
Mathematics, A.A.
Mathematics, A.S.
Mathematics, Minor...
Statistics, B.S....
Mathematics Graduate Programs...
Master of Science - Mathematics Education, M.S.
Mathematics, Graduate Certificate...

Music...
Collaborative Piano-Chamber Music, Certificate of Proficiency...
Collaborative Piano-Vocal Coaching, Certificate of Proficiency...
Commercial Music, B.M.
Music Education, B.S.
Music Technology, Certificate of Proficiency...
Music, A.S.
Music, B.A.
Music, B.S.
Music, Minor...
Performance, B.M.
Piano Pedagogy, Certificate of Proficiency...

N
Nursing...
Nursing, ASN.
Nursing, B.S.
Nursing Graduate Programs...
Nursing, M.S.N.

O
Organizational Leadership...
Event Management, B.S.
Event Planning, Minor...
Hospitality Management, A.A.S.
Hospitality Management, A.S.
Hospitality Management, B.S.
Human Resource Management, B.A.
Human Resource Management, B.S.
Human Resource Management, Minor.
Organizational Leadership and Change, Certificate of Proficiency...

P
Philosophy and Humanities...
Classical Studies, Minor...
Environmental Studies, Minor...
Ethics, Certificate of Proficiency.
Ethics, Minor...
Gender Studies, Minor...
Humanities, A.A.
Humanities, A.S.
Humanities, B.A.
Humanities, Minor...
Philosophy, B.A.
Philosophy, B.S.
Philosophy, Minor...
Religious Studies, Minor...
Physician Assistant Graduate Program...
Master of Physician Assistant Studies, M.P.A.S.

Physics...
Physics Education, B.S.
Physics, B.S.
Physics, Minor...

Public Health...
Health and Wellness Coaching, Certificate of Proficiency...
Health, Certificate of Proficiency...
Public Health, A.S.
Public Health, B.S.
Public and Community Health, Certificate of Proficiency...
School Health Education, B.S.
Departments and Degrees

School Health Education, Minor
Public Service Graduate Programs
Master of Public Administration, M.P.A.

S
Secondary and Special Education
  Autism Studies, Minor
  Physical Education Teacher Education, B.S.
  Secondary Education, Licensure
  Special Education - Mild/Moderate/Severe and Autism Studies, B.S.
Social Work Graduate Programs

Strategic Management and Operations
  Associate in Science in Business, A.S.B.
  Business Management, A.A.S.
  Business Management, Certificate of Completion
  Business Management, Minor
  Business and Analysis, B.S.
  Data Analytics and Decision Making, Certificate of Proficiency
  Entrepreneurship, Certificate of Proficiency
  Hospitality Management, Certificate of Proficiency
  International Business, B.S.
  Leadership Studies - Nonprofit Organizations, Certificate of Proficiency
  Leadership Studies - Nonprofit Organizations, Minor
  Leadership Studies, Certificate of Proficiency
  Leadership Studies, Minor
  Operations Management, Certificate of Proficiency
  Operations and Supply Chain Management, B.S.
  Pre-Major in Business, A.S.
  Process Improvement and Operations CA, Certificate of Proficiency

Student Leadership and Success Studies
  General Education, Certificate of Completion
  Integrated College and Community Studies, Certificate of Completion
  Leadership for Personal and Social Impact, Certificate of Proficiency
  Personal Development for Professional Advancement, Certificate of Proficiency
  University Studies, A.A.
  University Studies, A.S.
  University Studies, B.A.
  University Studies, B.S.

T
Technology Management
  Advanced Manufacturing, Certificate of Proficiency
  Master of Science in Engineering and Technology Management, M.S.
  Six Sigma Green Belt, Certificate of Proficiency
  Technology Management, B.S.
  Technology Management, Minor
  Technology, A.A.S.
  Technology Management Graduate Programs
  Theatrical Arts for Stage and Screen
    Theatre Arts - Acting Emphasis, B.F.A.
    Theatre Arts - Musical Theatre, B.F.A.
    Theatre Arts - Theatre Design and Production Emphasis, B.F.A.
    Theatre Arts, A.S.
    Theatre Education, B.S.
    Theatre Studies, A.A.
    Theatre Studies, B.A.
    Theatre Studies, Minor
    Theatre Technology, Certificate of Proficiency

Transportation Technologies
  Automotive Power Sports, A.A.S.
  Automotive Technology, A.A.S.
  Automotive Technology, A.S.
  Automotive Technology, Certificate of Completion
  Automotive Technology, Diploma
  Collision Repair Technology, A.A.S.
  Collision Repair Technology, Certificate of Completion
  Diesel Mechanics Technology, A.A.S.
  Diesel Mechanics Technology, Certificate of Completion
  Diesel Mechanics Technology, Diploma
  Transportation Technologies, B.A.S.
Accounting

The Accounting department is in the Woodbury School of Business. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Accounting department, visit their website.

Accounting department

DEPARTMENT CHAIR
HELQUIST, Joel Associate Professor

DEPARTMENT CHAIR
WAITE, David Lecturer

FACULTY
BAILEY, James Professor
BARTHOLOMEW, Aaron Associate Professor
CIESLEWICZ, Joshua Associate Professor
HELQUIST, Joel Associate Professor
HOWARD, Carolyn Associate Professor
JASPERSON, Jill O. Associate Professor
JEPPSON, Nathan Associate Professor
MYERS, Noah Assistant Professor
OLSEN, Kari Joseph Associate Professor
ORTEGA, Xiaoli Associate Professor
RANKIN, Michelle Professional in Residence
SMITH, Sheldon R. Professor
SMITH, Kevin Professor
STUBBS, Kyle Assistant Professor
VAN WAGONER, Marty Professional in Residence
WAITE, David Lecturer
WITESMAN, J. David P. Assistant Professor

Course Descriptions

Accounting

Degrees & Programs

Accounting, A.S.

Requirements

The Associate in Science degree provides a broad business foundation and prepares students for upper-division studies in accounting. Students receive a broad range of theoretical and applied knowledge in the areas of accounting, economics, business law, and quantitative applications.

Total Program Credits: 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts (5.0)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Writing Academic Writing and Research</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>25 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2110 Principles of Accounting I (3)</td>
<td></td>
</tr>
<tr>
<td>or ACC 2120 Principles of Accounting II (Grade of B- or higher required) (3)</td>
<td></td>
</tr>
<tr>
<td>or ACC 2100 Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>and ACC 2200 Managerial Accounting (Grade of B- or higher required)</td>
<td></td>
</tr>
<tr>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>ACC 2250 Data Analytics in Accounting</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2340 Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2400 Introduction to Data Analytics for Business Professionals</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2600 Business Law and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>or LEGL 3000 Business Law (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 220G Written Business Communication WE</td>
<td>3</td>
</tr>
<tr>
<td>Complete 3 credits from the following:</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2240 Business Calculus (3)</td>
<td></td>
</tr>
</tbody>
</table>

Course Catalog 2023-2024
Accounting

ACC 2250  Accounting for Entrepreneurs (3)

MKTG 2390  Professional Business Presentations (3)

Graduation Requirements:
1. Completion of a minimum of 60 semester credits.
2. Overall GPA of 2.0 or above with 2.5 GPA or above in Business courses. No grade below "C-" in Business courses.
3. Residency hours: Minimum of 20 credit hours through course attendance at UVU with at least 12 credits of Woodbury School of Business courses.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.

Footnote
1HUM 1010 recommended

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Accounting, A.S.

Careers
1. Process and apply accounting transaction analysis into an accounting system.
2. Prepare the four basic financial statements.
3. Analyze results of financial information via ratios, relationships, and variance analysis to aid management decision making.
4. Apply Effective Communication Skills Concepts

Related Careers
• Accountants and Auditors
• Budget Analysts
• Credit Analysts
• Financial Examiners
• Tax Examiners and Collectors, and Revenue Agents
• Business Teachers, Postsecondary

Accounting, A.S. - TEST

Requirements
The Associate in Science degree provides a broad business foundation and prepares students for upper-division studies in accounting. Students receive a broad range of theoretical and applied knowledge in the areas of accounting, economics, business law, and quantitative applications.

Total Program Credits: 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010  Introduction to Academic Writing</td>
<td>3</td>
</tr>
<tr>
<td>or  ENGH 1005  Literacies and Composition Across Contexts (5.0)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010  Intermediate Writing Academic Writing and Research</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050  College Algebra (recommended for Business, Education, Science, and Health Professions majors)</td>
<td></td>
</tr>
<tr>
<td>or  MATH 1055  College Algebra with Preliminaries (5.0)</td>
<td></td>
</tr>
<tr>
<td>or  MATH 1090  College Algebra for Business (recommended for Business majors)</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distribution Courses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Distribution¹</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts Distribution</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2010  Principles of Economics I (Fulfills the Social/Behavioral Science Distribution)</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>25 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete one of the following introductory accounting sequences:</td>
<td>6</td>
</tr>
<tr>
<td>ACC 2110  Principles of Accounting I (3)</td>
<td></td>
</tr>
<tr>
<td>and  ACC 2120  Principles of Accounting II (Grade of B- or higher required) (3)</td>
<td></td>
</tr>
<tr>
<td>or  ACC 2010  Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>and  ACC 2020  Managerial Accounting (Grade of B- or higher required)</td>
<td></td>
</tr>
<tr>
<td>ACC 2125  Introduction to the Accounting Profession</td>
<td>1</td>
</tr>
<tr>
<td>ACC 2500  Data Analytics in Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2600  Business Law and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>or  LEGL 3000  Business Law (3)</td>
<td></td>
</tr>
<tr>
<td>MGMT 2340  Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2400  Introduction to Data Analytics for Business Professionals</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 220G  Written Business Communication WE</td>
<td>3</td>
</tr>
<tr>
<td>Complete 3 credits from the following:</td>
<td></td>
</tr>
<tr>
<td>MGMT 2240  Business Calculus (3)</td>
<td></td>
</tr>
<tr>
<td>or  ACC 2250  Accounting for Entrepreneurs (3)</td>
<td></td>
</tr>
<tr>
<td>or  MKTG 2390  Professional Business Presentations (3)</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Completion of a minimum of 60 semester credits.
2. Overall GPA of 2.0 or above with 2.5 GPA or above in Business courses. No grade below "C-" in Business courses.

or  An Advanced Placement (AP) Mathematics Test with a score of 3 or higher

Complete one of the following: 3

HIST 2700  US History to 1877 (3.0)

and  HIST 2710  US History since 1877 (3.0)

HIST 1700  American Civilization (3.0)

HIST 1740  US Economic History (3.0)

POLS 1000  American Heritage (3.0)

POLS 1100  American National Government (3.0)

Complete the following:

PHIL 2050  Ethics and Values | 3 |

or  HLTH 1100  Personal Health and Wellness (2.0) | |

or  EXSC 1097  Fitness for Life | 2 |
3. Residency hours: Minimum of 20 credit hours through course attendance at UVU with at least 12 credits of Woodbury School of Business courses.

4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.

Footnote

1 HUM 1010 recommended

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Accounting, A.S. - TEST

Careers

Program Learning Outcomes


Related Careers

- Accountants and Auditors
- Budget Analysts
- Credit Analysts
- Financial Examiners
- Tax Examiners and Collectors, and Revenue Agents
- Business Teachers, Postsecondary

Accounting, Certificate of Completion

Requirements

A certificate of completion introduces students to the knowledge and skills need to perform in a basic business environment. It includes a knowledge of basic business math, accounting, and accounting software. Skills include communication and presentation skills. This is primarily an applied certificate with a brief conceptual background in business.

Total Program Credits: 30

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>24 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
</tr>
</tbody>
</table>

or

| ENGL 1005 | Literacies and Composition Across Contexts CC (5) |

Complete one of the following: 3

<table>
<thead>
<tr>
<th>MATH 1050</th>
<th>College Algebra QL (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (3)</td>
</tr>
</tbody>
</table>

An Advanced Placement (AP) Mathematics Test with a score of 3 or higher.

Complete the following:

<table>
<thead>
<tr>
<th>ACC 2110</th>
<th>Principles of Accounting I</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2120</td>
<td>Principles of Accounting II</td>
</tr>
<tr>
<td>IM 2600</td>
<td>Spreadsheet Applications</td>
</tr>
<tr>
<td>ACC 2500</td>
<td>Data Analytics in Accounting (3)</td>
</tr>
<tr>
<td>ECON 2010</td>
<td>Principles of Economics I SS</td>
</tr>
<tr>
<td>MKTG 2390</td>
<td>Professional Business Presentations</td>
</tr>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication WE</td>
</tr>
</tbody>
</table>

Elective Requirements: 6 Credits

Complete at least 6 credits from the courses below:

<table>
<thead>
<tr>
<th>ENGL 2010</th>
<th>Intermediate Academic Writing CC (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2020</td>
<td>Principles of Economics II SS (3)</td>
</tr>
<tr>
<td>MGMT 2240</td>
<td>Business Calculus (3)</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Survey of Calculus QL (4)</td>
</tr>
<tr>
<td>or MATH 2340</td>
<td>Business Statistics I (3)</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Minimum of 30 credits required for a Certificate.
2. Must earn grade of B- or higher in ACC 2110 and ACC 2120.
3. Overall GPA of 2.0 required for graduation with no grade lower than a “C-” in Woodbury School of Business classes.
4. Residency hours -- minimum of 16 credit hours through course attendance at UVU.

Accounting, Certificate of Completion

Careers

Related Careers

- Accountants and Auditors
- Budget Analysts
- Credit Analysts
- Financial Examiners
- Tax Examiners and Collectors, and Revenue Agents
- Business Teachers, Postsecondary

Accounting, Minor

Requirements

A Minor in Accounting will prepare students in any major to speak the language of business. Students will receive extensive coverage of both financial and managerial accounting, with the opportunity to pursue other accounting areas of study including: financial accounting, audit, information systems, or tax.

Total Program Credits: 18
# Accounting

**Matriculation Requirements:**

1. Admitted to a bachelor degree program at UVU.

**Discipline Core Requirements:** 12 Credits

Complete one of the following introductory accounting sequences 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2110</td>
<td>Principles of Accounting I (3)</td>
</tr>
<tr>
<td>and ACC 2120</td>
<td>Principles of Accounting II (3)</td>
</tr>
<tr>
<td>or ACC 2010</td>
<td>Financial Accounting (3)</td>
</tr>
<tr>
<td>and ACC 2020</td>
<td>Managerial Accounting (3)</td>
</tr>
</tbody>
</table>

Complete the following courses: 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 3030</td>
<td>Intermediate Accounting for Non-Accounting Majors (3)¹ ²</td>
</tr>
<tr>
<td>or ACC 3010</td>
<td>Intermediate Accounting I (3)</td>
</tr>
<tr>
<td>ACC 3300</td>
<td>Cost Management (3)</td>
</tr>
</tbody>
</table>

**Elective Requirements:** 6 Credits

Choose 6 credits from the following: 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 3020</td>
<td>Intermediate Accounting II (3)</td>
</tr>
<tr>
<td>ACC 312G</td>
<td>International Internal Auditing GI (3)</td>
</tr>
<tr>
<td>ACC 3400</td>
<td>Individual Income Tax (3)</td>
</tr>
<tr>
<td>ACC 3510</td>
<td>Accounting Information Systems (3)³</td>
</tr>
<tr>
<td>ACC 4030</td>
<td>Governmental and Not For Profit Accounting (3)</td>
</tr>
<tr>
<td>ACC 4310</td>
<td>Advanced Management Accounting (3)</td>
</tr>
<tr>
<td>ACC 4400</td>
<td>Taxation of Business Entities (3)</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Overall grade point average of 2.5 GPA in all Woodbury School of Business courses and no grade lower than a C- in business courses.
2. Completion of GE and specified departmental requirements.

NOTES: Students are responsible for completing all prerequisite courses.

¹ Only take ACC 3010 if you intend to take ACC 3020 as one of your electives.
² Course may require completion of prerequisite courses not included in the minor.

### Accounting, Minor

**Careers**

1. Identify and interpret accounting information to inform users and make decisions.
2. Demonstrate knowledge of theories, models, and tools relevant to accounting.
3. Analyze current principles and practices of accounting to generate business solutions.

### Related Careers

- Accountants and Auditors
- Budget Analysts
- Credit Analysts
- Financial Examiners
- Tax Examiners and Collectors, and Revenue Agents
- Business Teachers, Postsecondary

### Accounting, B.S.

**Requirements**

This degree offers a balanced theoretical and applied approach to study a broad range of business and accounting disciplines. This includes business topics of marketing, finance, law, operations, and strategy. Following a study of the primary accounting disciplines of financial, managerial, audit, information systems, and tax, students can engage in a more specialized study of internal audit, management accounting, tax, or public accounting/graduate school. Students also develop important business skills in communication, critical thinking, team building, and computer applications.

**Total Program Credits: 120**

**Matriculation Requirements**

To be considered matriculated in the Accounting degree, a student must complete the following courses with at least a C-grade:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2110</td>
<td>Principles of Accounting I (3)</td>
</tr>
<tr>
<td>and ACC 2120</td>
<td>Principles of Accounting II (3)</td>
</tr>
<tr>
<td>or ACC 2010</td>
<td>Financial Accounting (3)</td>
</tr>
<tr>
<td>and ACC 2020</td>
<td>Managerial Accounting (3)</td>
</tr>
<tr>
<td>ACC 2500</td>
<td>Data Analytics in Accounting (3)</td>
</tr>
<tr>
<td>or IM 2600</td>
<td>Spreadsheet Applications (3)</td>
</tr>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GI WE</td>
</tr>
<tr>
<td>ECON 2010</td>
<td>Principles of Economics I SS</td>
</tr>
<tr>
<td>MGMT 2340</td>
<td>Business Statistics I SS</td>
</tr>
<tr>
<td>MGMT 2240</td>
<td>Business Calculus</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Survey of Calculus QL (4)</td>
</tr>
<tr>
<td>MGMT 2400</td>
<td>Introduction to Data Analytics for Business Professionals</td>
</tr>
<tr>
<td>MKTG 2390</td>
<td>Professional Business Presentations</td>
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**General Education Requirements:** 35 Credits

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC (3)</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>-------------</td>
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<tr>
<td>ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Writing Academic Writing and Research CC</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (3)</td>
</tr>
<tr>
<td>or</td>
<td>An Advanced Placement (AP) Calculus AB or BC Test with a score of 3 or higher</td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
</tr>
<tr>
<td>HIST 2710</td>
<td>US History since 1877 AS (3)</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
</tr>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
</tr>
<tr>
<td>or</td>
<td>EXSC 1097 Fitness for Life TE (2)</td>
</tr>
<tr>
<td>BIOLOGY</td>
<td>Biology</td>
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<tr>
<td>PHYS SCIENCE</td>
<td>Physical Science</td>
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<tr>
<td>ADD BIO SCIENCE</td>
<td>Additional Biology or Physical Science</td>
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<td>HUMANITIES</td>
<td>Humanities Distribution</td>
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<tr>
<td>FINE ARTS</td>
<td>Fine Arts Distribution</td>
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<td>ECON 2010</td>
<td>Principles of Economics I SS (Fulfills the Social/Behavioral Science Distribution)</td>
</tr>
<tr>
<td>ACC 2110</td>
<td>Principles of Accounting I (3)</td>
</tr>
<tr>
<td>or</td>
<td>Principles of Accounting II (3)</td>
</tr>
<tr>
<td>or</td>
<td>Financial Accounting (3)</td>
</tr>
<tr>
<td>or</td>
<td>Managerial Accounting (3)</td>
</tr>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GI WE²</td>
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<tr>
<td>MGMT 2240</td>
<td>Business Calculus</td>
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<tr>
<td>or</td>
<td>Survey of Calculus QL (4)</td>
</tr>
<tr>
<td>MGMT 2340</td>
<td>Business Statistics I</td>
</tr>
<tr>
<td>MGMT 2400</td>
<td>Introduction to Data Analytics for Business Professionals</td>
</tr>
<tr>
<td>ACC 2500</td>
<td>Data Analytics in Accounting²</td>
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<tr>
<td>or</td>
<td>Spreadsheet Applications (3)</td>
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<tr>
<td>MKTG 2390</td>
<td>Professional Business Presentations</td>
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<tr>
<td>or</td>
<td>Entrepreneurship Lecture Series (1)</td>
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<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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<tr>
<td>HIST 2710</td>
<td>US History since 1877 AS (3)</td>
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<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
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<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
</tr>
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<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
</tr>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
</tr>
<tr>
<td>or</td>
<td>EXSC 1097 Fitness for Life TE (2)</td>
</tr>
<tr>
<td>BIOL REVISE</td>
<td>Distribution Courses:</td>
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<tr>
<td>PHYS REVISE</td>
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<tr>
<td>ADD BIOL REVISE</td>
<td>Additional Biology or Physical Science</td>
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<tr>
<td>HUM REVISE</td>
<td>Humanities Distribution</td>
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<tr>
<td>FINE ARTS REVISE</td>
<td>Fine Arts Distribution</td>
</tr>
<tr>
<td>ECON REVISE</td>
<td>Principles of Economics I SS (Fulfills the Social/Behavioral Science Distribution)</td>
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<tr>
<td>71</td>
<td>Discipline Core Requirements:</td>
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<tr>
<td>65</td>
<td>Business Foundation Courses: (required for matriculation)</td>
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<tr>
<td>66</td>
<td>Complete one of the following sequences (Satisfies Business Core accounting requirement)²</td>
</tr>
<tr>
<td>66</td>
<td>ACC 2110 Principles of Accounting I (3)</td>
</tr>
<tr>
<td>or</td>
<td>Principles of Accounting II (3)</td>
</tr>
<tr>
<td>or</td>
<td>Financial Accounting (3)</td>
</tr>
<tr>
<td>or</td>
<td>Managerial Accounting (3)</td>
</tr>
<tr>
<td>or</td>
<td>Written Business Communication GI WE²</td>
</tr>
<tr>
<td>3</td>
<td>Business Calculus</td>
</tr>
<tr>
<td>3</td>
<td>Survey of Calculus QL (4)</td>
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<tr>
<td>3</td>
<td>Business Statistics I</td>
</tr>
<tr>
<td>3</td>
<td>Introduction to Data Analytics for Business Professionals</td>
</tr>
<tr>
<td>3</td>
<td>Data Analytics in Accounting²</td>
</tr>
<tr>
<td>or</td>
<td>Spreadsheet Applications (3)</td>
</tr>
<tr>
<td>3</td>
<td>Professional Business Presentations</td>
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<tr>
<td>3</td>
<td>Entrepreneurship Lecture Series (1)</td>
</tr>
<tr>
<td>14</td>
<td>Elective Requirements:</td>
</tr>
<tr>
<td>14</td>
<td>Complete 14 credits of any courses 1000-level or higher</td>
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<tr>
<td>14</td>
<td>Graduation Requirements:</td>
</tr>
<tr>
<td>1.</td>
<td>Completion of a minimum of 120 semester credits; a minimum of 40 credits must be upper division.</td>
</tr>
<tr>
<td>2.</td>
<td>Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all Woodbury School of Business courses. No grade lower than a “C-” in core and specialization courses.</td>
</tr>
<tr>
<td>3.</td>
<td>Residency hours: Minimum of 30 credit hours of business courses through course attendance at UVU, with at least 10 hours earned in the last 45 hours.</td>
</tr>
<tr>
<td>4.</td>
<td>Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.</td>
</tr>
<tr>
<td>5.</td>
<td>Successful completion of at least one Global/Intercultural course.</td>
</tr>
</tbody>
</table>
Accounting

Footnote
1- Course cannot be taken until student is matriculated
2-Must be completed with a grade of B- or higher.

Accounting, B.S.

Careers

Program Learning Outcomes

1. Apply professional accounting standards and regulations appropriately.
2. Analyze accounting data to make informed decisions.
3. Apply general business concepts.

Related Careers

• Accountants and Auditors
• Budget Analysts
• Credit Analysts
• Financial Examiners
• Tax Examiners and Collectors, and Revenue Agents
• Business Teachers, Postsecondary
Accounting Graduate Programs

Master of Accountancy Graduate Program

The Master of Accountancy Graduate Program is in the Woodbury School of Business. To find the most up-to-date information, including Program Learning Outcomes for the Master of Accountancy Graduate Program, visit their website.

Master of Accountancy Graduate Program

Course Descriptions

Accounting.......................................................... 525
Business Management........................................... 771

Degrees & Programs

Master of Accountancy, M.Acc

Requirements

The Master of Accountancy (MAcc) degree prepares students for professional positions in accounting with potential for advancement throughout their career. It qualifies students for entrylevel positions in public accounting, industry, government, and not-for-profit organizations. The MAcc qualifies students to sit for the Uniform CPA Examinations throughout their career. It qualifies students for entrylevel positions in professional positions in accounting with potential for advancement.

The Master of Accountancy Graduate Program is in the Woodbury School of Business. To find the most up-to-date information, including Program Learning Outcomes for the Master of Accountancy Graduate Program, visit their website.

Total Program Credits: 30

Matriculation Requirements:

1. Application for admission to graduate program with application fee by the established deadline.
2. Submit official transcripts from all universities attended.
3. A bachelor’s degree from a regionally accredited college/ university, a nationally accredited program, or the international equivalent.
4. A 3.0 cumulative undergraduate GPA or a 3.0 GPA calculated on the last 60 semester hours (90 quarter hours) of undergraduate work.
5. For international students whose native language is not English, submit official TOEFL or IELTS band scores. A TOEFL score of 80 iBT (550 pBT) or higher, or an IELTS band score of 6.5 or higher within the past two years is required.
6. International students must also meet all US government requirements for international students.
7. The university uses a selective admissions process for admitting students to graduate programs. Meeting minimum admissions criteria does not guarantee admission to the graduate program or to the University as a graduate student.
8. Required prerequisite classes to the MAcc program must be taken from a regionally accredited U.S. institution or an AACSB International accredited business program. A minimum average GPA of 3.0 in the prerequisite classes is required. No individual grade for a prerequisite class may be a C or lower. Required prerequisite classes include Acc 3300 and 3510 or their equivalents. Required prerequisite classes also include Acc 3010, 3020, 4110, and 3400 or their equivalents which must cover U.S. financial accounting, auditing, and tax standards and regulations.

Graduation Requirements:

1. A minimum of 30 credit hours shall be completed.
2. Graduate coursework shall be completed within a six-year period.
3. Credit for courses in which a student earns a grade of C- or lower shall not be applied toward any master’s degree or graduate certificate program.
4. A cumulative grade point average of 3.0 or higher shall be maintained in graduate program courses.
5. Graduate credits accepted from another regionally accredited institution or equivalent shall have been completed within four years of the graduate student’s matriculation into the graduate program and cannot be older than six years at the time of graduation with a master’s degree or graduate certificate from the University.

Elective Requirements: 9 Credits

Select 9 semester credits from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 6020</td>
<td>Advanced Financial Accounting Applications (3)</td>
<td></td>
</tr>
<tr>
<td>ACC 6030</td>
<td>Financial Accounting and Reporting (3)</td>
<td></td>
</tr>
<tr>
<td>ACC 6130</td>
<td>Case Studies in Auditing (3)</td>
<td></td>
</tr>
<tr>
<td>ACC 6140</td>
<td>Fraud Examination and Forensic Accounting (3)</td>
<td></td>
</tr>
<tr>
<td>ACC 6150</td>
<td>Information Systems Auditing (3)</td>
<td></td>
</tr>
<tr>
<td>ACC 6250</td>
<td>Financial Reporting and Analysis (3)</td>
<td></td>
</tr>
<tr>
<td>ACC 6350</td>
<td>Management Control Systems (3) (if not already taken)</td>
<td></td>
</tr>
<tr>
<td>ACC 6410</td>
<td>Tax Research and Procedure (3)</td>
<td></td>
</tr>
<tr>
<td>ACC 6420</td>
<td>Principles of Corporate Tax (3)</td>
<td></td>
</tr>
<tr>
<td>ACC 6430</td>
<td>Advanced Corporate Tax (3)</td>
<td></td>
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<tr>
<td>ACC 6440</td>
<td>Partnership Tax (3)</td>
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<tr>
<td>ACC 6460</td>
<td>Estate and Gift Tax (3)</td>
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<tr>
<td>ACC 6580</td>
<td>Financial Accounting Theory and Research II (3)</td>
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<tr>
<td>ACC 6600</td>
<td>Business Law for Accountants (3) (if not already taken)</td>
<td></td>
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<tr>
<td>ACC 6610</td>
<td>Financial Statement Research and Analysis (3)</td>
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</tr>
<tr>
<td>ACC 679R</td>
<td>Special Topics in Accounting (3)</td>
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</tr>
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</table>

Other master’s level course as approved by the program.
Accounting Graduate Programs

6. A minimum of 20 of graduate credit hours must be completed at Utah Valley University.

Master of Accountancy, M.Acc

Careers

1. Perform accounting, auditing, and taxation responsibilities expected of newly licensed Certified Public Accountants.
2. Analyze accounting information to provide recommendations and solutions to business decisions and challenges.
3. Demonstrate professionalism through interpersonal skills and collaboration.
4. Formulate accounting and auditing solutions based on ethical principles.

Related Careers

• Accountants and Auditors
• Budget Analysts
• Credit Analysts
• Financial Examiners
• Tax Examiners and Collectors, and Revenue Agents
• Business Teachers, Postsecondary
Air Force and Army ROTC

Air Force ROTC

The Air Force ROTC program is offered through a collaboration between UVU and BYU. To find the most up-to-date information, including Program Learning Outcomes for the Air Force ROTC program, visit their website.

Related Careers

- NO MATCH

Course Descriptions

Aerospace Studies ................................................................. 529
Military Science ................................................................. 777

Degrees & Programs

Military Science, Minor

Requirements

The ROTC program at UVU trains and prepares cadets to commission and become officers in the United States Army. Classes taught in the program include Army history and structure, small unit tactics and movement techniques, leadership and management techniques and strategies, and physical fitness. The program is designed to be complementary to a school environment, with the emphasis placed on school completion and graduation. Upon completion of their college degree, cadets will also commission as second lieutenants in the United States Army, becoming junior leaders in their respective organizations.

Total Program Credits: 20

Matriculation Requirements:

1. Admitted to a bachelor degree program at UVU.

Minor Core Requirements: 20 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MILS 1200</td>
<td>Introduction to Leadership Excellence I</td>
<td>2</td>
</tr>
<tr>
<td>MILS 1210</td>
<td>Introduction to Leadership Excellence II</td>
<td>2</td>
</tr>
<tr>
<td>MILS 2200</td>
<td>Introduction to Leadership Excellence II</td>
<td>2</td>
</tr>
<tr>
<td>MILS 2210</td>
<td>Advanced Organizational Leadership II</td>
<td>2</td>
</tr>
<tr>
<td>MILS 3200</td>
<td>Small Unit Leadership I</td>
<td>3</td>
</tr>
<tr>
<td>MILS 3210</td>
<td>Small Unit Leadership II</td>
<td>3</td>
</tr>
<tr>
<td>MILS 4200</td>
<td>The Profession of Arms I</td>
<td>3</td>
</tr>
<tr>
<td>MILS 4210</td>
<td>The Profession of Arms II</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

Military Science, Minor

Careers

1. Give cadets a strong foundation of leadership and critical thinking skillsets.
Allied Health

Dental Hygiene, A.A.S.

Requirements

Dental hygienists examine patients for signs of oral diseases, such as gingivitis, and provide preventive care, including oral hygiene. Working in a private dental office continues to be the primary place of employment for dental hygienists. For today's dental hygiene professional, there are many other career pathways to explore as well. Employment of dental hygienists is projected to grow 6 percent from 2019 to 2029, faster than the average for all occupations. The demand for dental services will increase as the population ages and as research continues to link oral health to overall health.

Total Program Credits: 84

Matriculation Requirements:
1. ENGL 1010 Introduction to Academic Writing or ENGH 1005 Literacies and Composition Across Contexts, CHEM 1110 Elementary Chemistry for the Health Sciences, BIOL 1610 College Biology, ZOOL 2320 Human Anatomy /ZOOL 2325 Human Anatomy Lab and ZOOL 2420 Human Physiology/ZOOL 2425 Human Physiology Lab with a minimum of a "C" grade or higher
2. Complete the HSRT - Health Science Reasoning Test.
3. Complete 20 hours of clinical/dental office observation.
4. Submit two letters of reference by either a current supervisor/employer or academic instructor.
5. Submit a 2 page essay on topic provided by department.
6. Submit the Dental Hygiene Application Fee by February 1.
7. Complete interview process and be formally accepted into program.

General Education Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
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<tr>
<td>or ENGH 1005</td>
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Complete one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>3</td>
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</table>

Graduation Requirements:

1. Completion of a minimum of 84 semester credits.
2. Overall grade point average of 2.5 or above. All courses must have "C" or higher.
3. Residency hours: minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Dental Hygiene, A.A.S.

**Careers**

1. UVUDH graduates will be able to execute all steps in the dental hygiene process of care.
2. UVUDH graduates will be able to apply a professional code of ethics which complies with Federal and State laws.
3. UVUDH graduates will be able to provide health promotion and education services in public health and alternative settings.
4. UVUDH graduates will be able to successfully graduate and affiliate with professional organizations.
5. UVUDH graduates will be able to perform self-assessment for professional growth and lifelong learning.

**Related Careers**

- Health Specialties Teachers, Postsecondary
- Dental Hygienists

Healthcare Services, A.A.S.

**Requirements**

The Associate in Applied Science in Healthcare Services is designed for individuals working in a health-related area who have obtained, or are working toward a technical certification, license, etc. Many of these students will be looking for a pathway to allow them better upward mobility in their professions or education to help them become a certified health professional. Students initially finish a program at Mountainland Technical College to develop a portfolio that presents licenses and work-related certifications as well as provides a rationale for receiving technical, experiential credit. Students matriculating into UVU’s AAS program will add to their portfolio core courses that provide fundamental knowledge of health professions, human anatomy and physiology, as well as elective courses; students enhance their technical knowledge and skills in one or more health-related areas (e.g. surgical technician, medical assistant, and medical billing and coding).

**Total Program Credits: 64**

**Matriculation Requirements:**

Completion of an approved MTECH articulated certificate

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>17 Credits</th>
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<td>Complete one of the following:</td>
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<tr>
<td>ENGL 1010 Introduction to Academic Writing</td>
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<tr>
<td>ENGH 1005 Literacies and Composition Across Context (5)</td>
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</table>

<table>
<thead>
<tr>
<th>Complete one of the following:</th>
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<tbody>
<tr>
<td>MAT 1010 Intermediate Algebra (4)</td>
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</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra (6)</td>
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<tr>
<td>STAT 1040 Introduction to Statistics (3)</td>
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</table>

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>STAT 1045 Introduction to Statistics with Algebra (5)</td>
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<tr>
<td>MATH 1050 College Algebra (4)</td>
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<tr>
<td>MATH 1055 College Algebra with Preliminaries (5)</td>
<td></td>
</tr>
<tr>
<td>Any Humanities or Fine Arts Distribution 3</td>
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<tr>
<td>Any Social Science Distribution 3</td>
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</tr>
<tr>
<td>BIOL 1010 General Biology 3</td>
<td></td>
</tr>
<tr>
<td>or BIOL 1610 College Biology I (4)</td>
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<tr>
<td>HLTH 1100 Personal Health and Wellness 2</td>
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<tr>
<td>or EXSC 1097 Fitness for Life (2)</td>
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<table>
<thead>
<tr>
<th>Healthcare Services Core:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 2200 Introduction to Health Professions</td>
<td>2</td>
</tr>
<tr>
<td>ZOOL 1090 Introduction to Human Anatomy and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>30 credit hours of R473 articulation agreement</td>
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<table>
<thead>
<tr>
<th>Healthcare Services Electives:</th>
<th>12 Credits</th>
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<tbody>
<tr>
<td>HLTH 2400 Concepts of Stress Management (3)</td>
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</tr>
<tr>
<td>HLTH 2600 Drugs Behavior and Society (3)</td>
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</tr>
<tr>
<td>BIOL 1610 College Biology I (4)</td>
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<tr>
<td>BIOL 1615 College Biology I Laboratory (1)</td>
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<tr>
<td>CHEM 1110 Elementary Chemistry for the Health Sciences (4)</td>
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<tr>
<td>DENT 1000 Introduction to Dental Professions (1)</td>
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<tr>
<td>ESEC 1013 Emergency Medical Response (3)</td>
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<tr>
<td>ESEC 1140 Emergency Medical Technician Basic (9)</td>
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<tr>
<td>IM 1010 Basic Computer Applications (3)</td>
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<tr>
<td>IM 2010 Business Computer Proficiency (3)</td>
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<tr>
<td>NUTR 1020 Foundations of Human Nutrition (3)</td>
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</tbody>
</table>
### Graduation Requirements:

1. Complete a minimum of 64 semester credits.
2. Overall grade point average of 2.0 (C) or above. All Health Service core electives must be completed with a C- or higher.
3. Residency hours - minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. Completion of an approved and articulated MTECH certificate

### Healthcare Services, A.A.S. Careers

1. Utilize the specialized knowledge and skills necessary in various health professions.
2. Develop effective strategies in communicating ethically and culturally sensitive information that engage individuals and communities in the promotion of health policies, programs, and interventions.
3. Recognize basic anatomy and physiology.

### Respiratory Therapy, A.A.S. Requirements

An Associate of Applied Science in Respiratory Therapy consists of comprehensive classroom and clinical curricula that prepares students for matriculation into the BS Respiratory Therapy program and credentialing exam offered by the National Board of Respiratory Care (NBRC). The NBRC is the credentialing arm of the American Association of Respiratory Care. Successful completion of the curriculum and the credentialing exam certifies students as a Registered Respiratory Therapist (RRT) and enables them to apply for licensure in their state of residence. Employment opportunities with health care providers range from home health and hospice to neonatal, pediatric, and adult intensive care units in UVU's service area and across the country.

**Total Program Credits: 72**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2010</td>
<td>Financial Accounting</td>
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<tr>
<td>ACC 2020</td>
<td>Managerial Accounting</td>
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<tr>
<td>RESP 1540</td>
<td>Survey of Respiratory Therapy</td>
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<tr>
<td>MKTG 220G</td>
<td>Written Business Communication WE</td>
<td>3</td>
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<tr>
<td>PSY 1010</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>PSY 1100</td>
<td>Human Development Life Span</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1010</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>ZOOL 2320</td>
<td>Human Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>ZOOL 2325</td>
<td>Human Anatomy Laboratory</td>
<td>1</td>
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<tr>
<td>ZOOL 2420</td>
<td>Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>ZOOL 2425</td>
<td>Human Physiology Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>

### Matriculation Requirements:

1. Complete the following coursework:
   - College English
   - Quantitative Literacy
   - Personal Health and Wellness
   - Microbiology with lab (4 credits)
   - College Biology with lab (5 credits)
   - Chemistry (4 credits)
   - Human Anatomy with lab (4 credits)
   - Human Physiology with lab (4 credits)
   - Physics
   - Survey of Respiratory Therapy
   - Note: Must pass all general education and pre-requisite courses with a minimum of a “C” grade or higher

2. Complete the Test of Academic Skills (TEAS)

3. Submit Application Fee and Application by the third Friday in September

4. Personal Interview: All candidates will be screened and those deemed to meet or exceed basic application requirements will be invited for an interview. This interview does not guarantee acceptance into the program as students will compete with all other applicants for matriculation into a cohort. Applicants must bring a photo ID to the interview.

5. Other Determining Factors
   - Prior healthcare experience (preferred, but not required)
   - Shadowing opportunity (recommended)
   - Discipline for academic performance
   - Successful completion of a background check
   - Drug Screen

### General Education Requirements: 27 Credits

Complete one of the following:

- **ENGL 1010** Introduction to Academic Writing CC (3)
- **ENGL 101H** Introduction to Writing CC (3)
- **ENGH 1005** Literacies and Composition Across Contexts CC (5)
- **ENGL 2010** Intermediate Academic Writing CC (3)

Complete one of the following:

- **MAT 1030** Quantitative Reasoning QL (3)
- **MAT 1035** Quantitative Reasoning with Integrated Algebra QL (6)
- **STAT 1040** Introduction to Statistics QL (3)
- **STAT 1045** Introduction to Statistics with Algebra QL (5)
- **MATH 1050** College Algebra QL (4) or higher QL math course
- **MATH 1055** College Algebra with Preliminaries QL (5)

Complete One of the following:

- **HLTH 1100** Personal Health and Wellness TE (2) (Highly recommended)
- **EXSC 1097** Fitness for Life TE (2)

### Distribution Courses:

- **PSY 1100** Human Development Life Span SS (3)
Allied Health

or PSY 1010 General Psychology SS
BIOL 1610 College Biology I BB 5
and BIOL 1615 College Biology I Laboratory
CHEM 1110 Elementary Chemistry for the Health Sciences PP 4
or CHEM 1210 Principles of Chemistry I PP
MICR 2060 Microbiology for Health Professions BB 4
and MICR 2065 Microbiology for Health Professions Laboratory

Discipline Core Requirements: 45 Credits
Complete one of the following: 4
ZOOL 2320 Human Anatomy BB (3.0)
and ZOOL 2325 Human Anatomy Laboratory (1.0)
ZOOL 232H Human Anatomy BB (3.0)
and ZOOL 232L Human Anatomy Laboratory (1.0)
Complete the following:
ZOOL 2420 Human Physiology 3
and ZOOL 2425 Human Physiology Laboratory 1
PHYS 1010 Elementary Physics 3
RESP 1540 Survey of Respiratory Therapy 1

Must be accepted into Program to take these Courses
RESP 2145 Fundamentals of Respiratory Care Lab 3
RESP 2165 Mechanical Ventilation Lab 2
RESP 2210 Cardiopulmonary and Renal Anatomy and Physiology I 3
RESP 2230 Cardiopulmonary Pathophysiology I 2
RESP 2250 Basic Patient Assessment 2
RESP 2270 Application of Cardiopulmonary Diagnostics 3
RESP 2300 Fundamentals of Respiratory Care 3
RESP 2320 Mechanical Ventilation I 3
RESP 2330 Entry Level Respiratory Therapy Review 1
RESP 2420 Critical Thinking in Respiratory Care 2
RESP 2520 Principles of Pharmacology 2
RESP 2705 Clinical Practice I 3
RESP 2715 Specialty Clinical Experiences 1
RESP 2725 Clinical Practice II 3

Graduation Requirements:
1. Completion of a minimum of 72 semester credits
2. Must earn a C or higher in ALL Respiratory Therapy discipline courses, general education courses, and pre-requisite courses.
3. Residency hours: minimum of 20 credit hours through course attendance at UVU.
4. Completion of specified departmental requirements.

Respiratory Therapy, A.A.S. Careers
1. Work effectively as a team member with physicians, nurses, therapists and patients as an integral part of the medical community.
2. Make correct interventional medical decisions based on assessment of patient needs and diagnosis within the scope of therapist driven protocols.
3. Comply with the ethical and legal parameters of HIPAA in the use and disclosure patients' health information.

Related Careers
- Health Specialties Teachers, Postsecondary
- Respiratory Therapy
- Respiratory Therapy Technicians

Dental Hygiene, B.S. Requirements
Dental hygienists examine patients for signs of oral diseases, such as gingivitis, and provide preventive care, including oral hygiene. Working in a private dental office continues to be the primary place of employment for dental hygienists. For today’s dental hygiene professional, there are many other career pathways to explore as well. Employment of dental hygienists is projected to grow 6 percent from 2019 to 2029, faster than the average for all occupations. The demand for dental services will increase as the population ages and as research continues to link oral health to overall health.

Total Program Credits: 121

Matriculation Requirements:
1. Complete ENGL 1010 or ENGH 1005, CHEM 1110, BIOL 1610, ZOOL 2320/2325, and ZOOL 2420/2425 with a minimum of a “C” grade or higher.
2. Complete the HSRT - Health Science Reasoning Test.
3. Complete 20 hours of clinical/dental office observation.
4. Submit two letters of reference by either a current supervisor/employer or academic instructor.
5. Submit a 2 page essay on topic provided by department.
6. Submit the Dental Hygiene Application Fee and Application by February 1.
7. Complete interview process and be formally accepted into program.

General Education Requirements: 37 Credits

<table>
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<tr>
<th>Course Code</th>
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<th>Description</th>
<th>Credit Hours</th>
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<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
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<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
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<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
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<tr>
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<td>MATH 1055</td>
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<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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</tbody>
</table>
Allied Health

and HIST 2710 US History since 1877 AS (3)
HIST 1700 American Civilization AS (3)
HIST 1740 US Economic History AS (3)
POLS 1000 American Heritage SS (3)
POLS 1100 American National Government AS (3)
Complete the following:
PHIL 2050 Ethics and Values IH (3)
or PHIL 205G Ethics and Values IH GI (strongly suggested) 3
HLTH 1100 Personal Health and Wellness TE (2)
or EXSC 1097 Fitness for Life TE 2
Distribution Courses:
CHEM 1110 Elementary Chemistry for the Health Sciences PP (fulfills Physical Science) 4
BIOL 1610 College Biology I BB 4
MICR 2060 Microbiology for Health Professions BB 3
Fine Arts 3
SOC 1010 Introduction to Sociology SS (fulfills Social/Behavioral Science) 3
COMM 1020 Public Speaking HH 3
Discipline Core Requirements: 74 Credits
Complete the following:
MICR 2065 Microbiology for Health Professions Laboratory 1
PSY 1010 General Psychology SS 3
ZOOl 2320 Human Anatomy BB 3
ZOOl 2325 Human Anatomy Laboratory 1
ZOOl 2420 Human Physiology 3
and ZOOl 2425 Human Physiology Laboratory 1
NUTR 1020 Foundations of Human Nutrition 3
DENT 1010 Dental Hygiene I 3
DENT 1015 Dental Hygiene I Preclinical lab 2
DENT 1020 Oral Anatomy and Physiology 4
DENT 1030 Dental Materials 2
DENT 1040 Dental Hygiene II 3
DENT 1045 Dental Hygiene II Clinical 3
DENT 1050 Clinical Dental Radiography 1
DENT 1055 Clinical Dental Radiography Lab 1
DENT 1060 General and Oral Pathology 2
DENT 1070 Medical Emergencies in the Dental Office 2
DENT 2020 Dental Pharmacology 3
DENT 206G Oral Public Health GI 3
DENT 3010 Pain Management 3
DENT 3015 Dental Hygiene III Clinical 4
DENT 3030 Periodontology 3
DENT 3040 Dental Hygiene IV 2
DENT 3045 Dental Hygiene IV Clinical 4
DENT 3050 Ethics and Practice Management 1
DENT 3060 Advanced Dental Hygiene Public Health 3
DENT 3200 Teaching the Dental Hygiene Patient WE 3
DENT 4200 Teaching the Dental Hygiene Student 3
DENT 4300 Dental Hygiene Capstone 1
DENT 489R Undergraduate Research in Dental Hygiene WE 3
or HLTH 4600 Research Methods for Public Health WE (3)
Elective Requirements 10 Credits
Take 10 credits from the following electives: 10
DENT 3100 Office and Private Practice for the Dental Hygienist (3)
DENT 406G Global Community Health Project GI (3)
DENT 481R Internship in Dental Hygiene (1-4)
DENT 490R Special Topics in Dental Hygiene (3)
ENTR 3170 Entrepreneurship and Opportunity Validation (3)
HLTH 3200 Principles of Community Health (3)
HLTH 3260 Theory-Based Approaches to Modifying Health Behavior (3)
HLTH 3700 Grant Writing WE (3)
HLTH 3800 Epidemiology (3)
HLTH 4200 Health Education Teaching Methods WE (3)
HLTH 4300 Health Ethics (3)
HLTH 440G Health and Diversity GI (3)
HLTH 4500 Healthcare Administration (3)
MGMT 3000 Organizational Behavior WE (3)
MKTG 3600 Principles of Marketing (3)
SOC 3430 Sociology of Education (3)
Other advisor approved upper division elective

Graduation Requirements:
1. Completion of a minimum of 121 semester credits
2. All courses must have a grade of "C" or higher.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with 10 hours earned during the last 45 hours
4. Completion of GE and specified departmental requirements
5. A minimum of 40 upper division credit hours
6. Successful completion of at least one Global/Intercultural course.

Dental Hygiene, B.S.

Careers

1. UVUDH graduates will be able to execute all steps in the dental hygiene process of care.
2. UVUDH graduates will be able to apply a professional code of ethics which complies with Federal and State laws.
3. UVUDH graduates will be able to provide health promotion and education services in public health and alternative settings.

74
4. UVUDH graduates will be able to successfully graduate and affiliate with professional organizations.
5. UVUDH graduates will be able to perform self-assessment for professional growth and lifelong learning.

**Related Careers**
- Health Specialties Teachers, Postsecondary
- Dental Hygienists

**Respiratory Therapy, B.S.**

**Requirements**
The BSRT includes five semesters of course study after completion of the first two years of undergraduate curriculum. The program is designed to provide students with educational and clinical competence by emphasizing advanced clinical knowledge, critical thinking, and versatility. Students are engaged in the theoretical, practical, and clinical aspects of adult, pediatric, and neonatal respiratory care. They gain a well-rounded and in-depth knowledge base of respiratory clinical science and its application in health care.

**Total Program Credits: 124**

### Matriculation Requirements:

Unless students already have an RRT Certification and associate's degree, the following matriculation requirements may apply.

1. Complete the following coursework:
   - **College English (6 credits)**
   - **Quantitative Literacy**
   - **Microbiology with lab (4 credits)**
   - **Chemistry (4 credits)**
   - **Human Anatomy with lab (4 credits)**
   - **Human Physiology with lab (4 credits)**
   - **Physics**
   - **Survey of Respiratory Therapy**
     - Note: Must pass all general education and pre-requisite courses with a minimum of a “C” grade or higher

2. Complete the Test of Academic Skills (TEAS)

3. Submit the Respiratory Therapy Application Fee and Application by the third Friday in September

4. Personal Interview: All candidates will be screened and those deemed to meet or exceed basic application requirements will be invited for an interview. This interview does not guarantee acceptance into the program as students will compete with all other applicants for matriculation into a cohort. Applicants must bring a photo ID to the interview.

5. Other Determining Factors
   - **Prior healthcare experience** (preferred, but not required)
   - **Shadowing opportunity** (recommended)
   - **Discipline for academic performance**
   - **Successful completion of background check**
   - **Drug Screen**

### General Education Requirements:

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<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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Complete one of the following: 3

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<tr>
<td>ENGL 101H</td>
<td>Introduction to Writing CC (3)</td>
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### Distribution Courses:

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<tr>
<td>MICR 2060</td>
<td>Microbiology for Health Professions BB</td>
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<td>or</td>
<td>Microbiology for Health Professions Laboratory</td>
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<tr>
<td>CHEM 1110</td>
<td>Elementary Chemistry for the Health Sciences PP</td>
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<td>or</td>
<td>Principles of Chemistry I PP (4)</td>
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<td>BIOL 1610</td>
<td>College Biology I BB</td>
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<td>and</td>
<td>College Biology I Laboratory</td>
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<td>Fine Arts Distribution</td>
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<td>PSY 1010</td>
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<td>or</td>
<td>Human Development Life Span SS (3)</td>
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### Discipline Core Requirements:

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<th>Title</th>
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<tr>
<td>ZOOL 2320</td>
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<td>ZOOL 2325</td>
<td>Human Anatomy Laboratory</td>
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<tr>
<td>ZOOL 2420</td>
<td>Human Physiology</td>
<td>3</td>
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<td>ZOOL 2425</td>
<td>Human Physiology Laboratory</td>
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<tr>
<td>PHYS 1010</td>
<td>Elementary Physics PP</td>
<td>3</td>
</tr>
<tr>
<td>RESP 1540</td>
<td>Survey of Respiratory Therapy</td>
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</table>

Must be accepted into Respiratory Therapy Program to take the following courses.
## Allied Health

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>RESP 2145</td>
<td>Fundamentals of Respiratory Care Lab</td>
<td>3</td>
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<tr>
<td>RESP 2165</td>
<td>Mechanical Ventilation Lab</td>
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<tr>
<td>RESP 2210</td>
<td>Cardiopulmonary and Renal Anatomy and Physiology I</td>
<td>3</td>
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<td>RESP 2230</td>
<td>Cardiopulmonary Pathophysiology I</td>
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<td>RESP 2250</td>
<td>Basic Patient Assessment</td>
<td>2</td>
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<td>RESP 2270</td>
<td>Application of Cardiopulmonary Diagnostics</td>
<td>3</td>
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<td>RESP 2300</td>
<td>Fundamentals of Respiratory Care</td>
<td>3</td>
</tr>
<tr>
<td>RESP 2320</td>
<td>Mechanical Ventilation I</td>
<td>3</td>
</tr>
<tr>
<td>RESP 2330</td>
<td>Entry Level Respiratory Therapy Review</td>
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<tr>
<td>RESP 2420</td>
<td>Critical Thinking in Respiratory Care</td>
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<tr>
<td>RESP 2520</td>
<td>Principles of Pharmacology</td>
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</tr>
<tr>
<td>RESP 2705</td>
<td>Clinical APractice I</td>
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<tr>
<td>RESP 2715</td>
<td>Specialty Clinical Experiences</td>
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</tr>
<tr>
<td>RESP 2725</td>
<td>Clinical Practice II</td>
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</table>

All lower Division RESP courses must be complete before enrolling in RESP upper division courses.

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<th>Course Title</th>
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<tbody>
<tr>
<td>RESP 3210</td>
<td>Cardiopulmonary and Renal Anatomy and Physiology II</td>
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<td>RESP 3220</td>
<td>Cardiopulmonary Pathophysiology II</td>
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<tr>
<td>RESP 3260</td>
<td>Neonatal/Pediatric Critical Care</td>
<td>3</td>
</tr>
<tr>
<td>RESP 3265</td>
<td>Neonatal/Pediatric Critical Care Lab</td>
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</tr>
<tr>
<td>RESP 3270</td>
<td>Adult Critical Care</td>
<td>2</td>
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<tr>
<td>RESP 3280</td>
<td>Extended Care Roles for Respiratory Therapists</td>
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<tr>
<td>RESP 3320</td>
<td>Mechanical Ventilation II</td>
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<tr>
<td>RESP 3430</td>
<td>Principles of Healthcare Education and Disease Management WE</td>
<td>3</td>
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<tr>
<td>RESP 3765</td>
<td>Clinical Practice III Neonatal/Pediatric Respiratory Therapy Clinical</td>
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<td>RESP 3785</td>
<td>Extended Roles in Respiratory Therapy Clinical</td>
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<tr>
<td>NURS 4120</td>
<td>Rapid Response Concepts Across the Lifespan</td>
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or

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>RESP 4940</td>
<td>Special Topics in Respiratory Therapy (1)</td>
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<tr>
<td>RESP 4610</td>
<td>Advanced Patient Assessment WE</td>
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<tr>
<td>RESP 4640</td>
<td>Respiratory Therapy Capstone</td>
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<td>RESP 4775</td>
<td>Clinical Practice IV Adult Critical Care</td>
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<tr>
<td>RESP 4800</td>
<td>Respiratory Therapy Seminar</td>
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</tr>
<tr>
<td>RESP 4890</td>
<td>Principles of Respiratory Care Research and Management</td>
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</tr>
</tbody>
</table>

### Respiratory Therapy, B.S.

#### Careers

1. Work effectively as a team member with physicians, nurses, therapists and patients as an integral part of the medical community.
2. Make correct interventional medical decisions based on assessment of patient needs and diagnosis within the scope of therapist driven protocols.
3. Comply with the ethical and legal parameters of HIPAA in the use and disclosure patients' health information.

#### Related Careers

- Health Specialties Teachers, Postsecondary
- Respiratory Therapy
- Respiratory Therapy Technicians

### Graduation Requirements:

1. Completion of a minimum of 124 semester credits, including at least 40 hours of upper-division credits.
2. Must earn a C or higher in ALL Respiratory Therapy discipline courses, general education courses, and pre-requisite courses.
3. Completion of GE and specified departmental requirements.
4. Residency hours—minimum of 30 credit hours through course attendance at UVU.
5. Successful completion of at least one Global/Intercultural course.
Architecture and Engineering Design

Architecture and Engineering Design

The Architecture & Engineering Design department is in the Scott M. Smith College of Engineering. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Architecture & Engineering Design department, visit their website.

Architecture & Engineering Design department

DEPARTMENT CHAIR
SMITH, Sidney D. Associate Professor

FACULTY
ALLRED, Jonathan Assistant Professor
BARKER, David B. Assistant Professor
HEAL, Stanley Lecturer
JOHNSON, Jeffrey Lecturer
MCMULLIN, Paul Assistant Professor
MILES, Christopher Lecturer
PERRY, Danial L. Professor
PRICE, Robert D. Associate Professor
RO, Brandon Assistant Professor
SELVARAJAN, Sowmya Associate Professor
SMITH, Sidney D. Associate Professor
SNIDER, Marika Assistant Professor
TAYLOR, Darin Professor

Course Descriptions

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Eng Graphics/Design Tech.................................................................669
Geographic Information Systems.......................................................721
Land Surveying..........................................................................................844

Degrees & Programs

Engineering Design Technology, A.A.S.

Requirements

The Associate in Applied Science Degree is a "job ready" degree and applies the technical and functional elements of several Drafting and Design fields. Students will take courses in the fundamentals of drafting and design, industry standard two-dimensional and three-dimensional software, Architectural Design, Civil Design and Surveying, Electrical Design, Mechanical Design, and Structural Steel Detailing and Design. Students will take other supporting classes and advanced courses in a minimum of two specialty areas of their choosing.

Total Program Credits: 65

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>19 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>English:</td>
<td>3</td>
</tr>
<tr>
<td>ENG 1010</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>3</td>
</tr>
<tr>
<td>or MKTG 220G</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mathematics:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EGDT 1600</td>
<td>Technical Math Algebra</td>
</tr>
<tr>
<td>or MATH 1050</td>
<td>College Algebra QL (4)</td>
</tr>
<tr>
<td>or MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
</tr>
<tr>
<td>EGDT 1610</td>
<td>Technical Math Geometry Trig</td>
</tr>
<tr>
<td>or MATH 1060</td>
<td>Trigonometry QL (3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanities/Fine Arts/Foreign Language:</th>
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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH (3)</td>
</tr>
<tr>
<td>or Any approved Humanities, Fine Arts, or Foreign Language Distribution Course</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Social and Behavioral Science:</th>
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</thead>
<tbody>
<tr>
<td>Biology or Physical Science:</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1010</td>
<td>Elementary Physics PP</td>
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</table>

<table>
<thead>
<tr>
<th>Physical Education/Health/Safety or Environment:</th>
<th>1</th>
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</thead>
<tbody>
<tr>
<td>Any approved Physical Education, Health, Safety or Environment Course</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>37 Credits</th>
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</thead>
<tbody>
<tr>
<td>EGDT 1010</td>
<td>Electrical Drafting and Design</td>
</tr>
<tr>
<td>EGDT 1020</td>
<td>3D Architectural Modeling</td>
</tr>
<tr>
<td>EGDT 1040</td>
<td>Fundamentals of Technical Engineering Drawing</td>
</tr>
<tr>
<td>EGDT 1070</td>
<td>3 Dimensional Modeling--Inventor</td>
</tr>
<tr>
<td>or EGDT 1071</td>
<td>3 Dimensional Modeling--Solidworks (3)</td>
</tr>
<tr>
<td>EGDT 1100</td>
<td>Architectural Drafting and Design</td>
</tr>
<tr>
<td>EGDT 1200</td>
<td>Mechanical Drafting</td>
</tr>
<tr>
<td>EGDT 1300</td>
<td>Structural Drafting</td>
</tr>
<tr>
<td>EGDT 1400</td>
<td>Surveying Applications and Field Techniques I</td>
</tr>
<tr>
<td>EGDT 2020</td>
<td>Descriptive Geometry</td>
</tr>
<tr>
<td>EGDT 2040</td>
<td>Piping Drafting</td>
</tr>
<tr>
<td>EGDT 2600</td>
<td>Applied Structures I - Statics</td>
</tr>
<tr>
<td>EGDT 2610</td>
<td>Applied Structures II - Strength of Materials</td>
</tr>
<tr>
<td>EGDT 285R</td>
<td>AEC Design Lecture Series</td>
</tr>
<tr>
<td>EGDT 2860</td>
<td>Cooperative Correlated Instruction/ SkillsUSA</td>
</tr>
<tr>
<td>EGDT 2870</td>
<td>Portfolio and Career Preparation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Requirements:</th>
<th>9 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose a minimum of three courses from the following list for a minimum of 9 credits:</td>
<td></td>
</tr>
<tr>
<td>EGDT 2100</td>
<td>Advanced Electrical--CAD (2)</td>
</tr>
<tr>
<td>EGDT 2100</td>
<td>Architecture Materials and Methods (3)</td>
</tr>
<tr>
<td>EGDT 2200</td>
<td>Advanced Mechanical (3)</td>
</tr>
<tr>
<td>EGDT 2300</td>
<td>Advanced Structural--CAD (3)</td>
</tr>
<tr>
<td>EGDT 2400</td>
<td>Surveying Applications and Field Techniques II (3)</td>
</tr>
<tr>
<td>EGDT 2500</td>
<td>3 Dimensional Modeling--Civil 3D (3)</td>
</tr>
</tbody>
</table>
## Architecture and Engineering Design

### Graduation Requirements:
1. Completion of a minimum of 65 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours-- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements, including a portfolio and exit interview.

### Engineering Design Technology, A.A.S.

#### Careers
- Architectural and Civil Drafters
- Electrical and Electronics Drafters
- Mechanical Drafters
- Drafters, All Other

#### Requirements
The Associate in Science Degree is a transferable degree and applies the technical and functional elements of several Drafting and Design fields without taking the advanced course work required in the Associate in Applied Science Degree. Students will take fundamental courses in drafting and design, industry standard two-dimensional and three-dimensional software, Architectural Design, Civil Design and Surveying, Electrical Design, Mechanical Design, and Structural Steel Detailing and Design.

### Total Program Credits: 61

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Context CC (5.0)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3.0)</td>
<td></td>
</tr>
</tbody>
</table>

| MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6.0) | |
| STAT 1040 Introduction to Statistics QL (3.0) | |
| STAT 1045 Introduction to Statistics with Algebra QL (5.0) | |
| MATH 1050 College Algebra QL (4.0) (MATH 1050 is a prerequisite for many classes in the program core.) | |
| MATH 1055 College Algebra with Preliminaries QL (5.0) | |
| MATH 1090 College Algebra for Business QL (3.0) | |

Complete one of the following:
- HIST 1700 American Civilization AS (3.0)
- HIST 1740 US Economic History AS (3.0)
- HIST 2700 US History to 1877 AS (3.0)
- and HIST 2710 US History since 1877 AS (3.0)
- POLS 1000 American Heritage SS (3.0)
- POLS 1100 American National Government AS (3.0)

Complete the following:
- PHYS 1010 Elementary Physics PP (3.0)
- or PHYS 2010 College Physics I PP (3.0)

Complete the following distribution courses:
- Biology (Recommend BIOL 1010 General Biology) (3.0)
- Humanities (Recommend ENGL 2100 Technical Communication HH) (3.0)
- Social/Behavioral Science (Recommend COMM 1050 Introduction to Speech Communication) (3.0)
- Physical Science (Recommend GEO 1010 Introduction to Geology) (3.0)
- Fine Arts Distribution (Recommend EGDT 1720 Architectural Rendering) (3.0)

#### Discipline Core Requirements:
26 Credits

Complete a minimum of 26 credits from the following tracks:

Architecture Drafting and Design Track. (Students select this track if interested in a career in architectural drafting and design. Students also take these classes as part of the Bachelor of Architecture degree.)
- EGDT 1020 3D Architectural Modeling (3)
- EGDT 1040 Fundamentals of Technical Engineering Drawing (3)
- EGDT 1100 Architectural Drafting and Design (3)
- EGDT 2100 Architecture Materials and Methods (3)
- EGDT 2600 Applied Structures I - Statics (3) (MATH 1050 is a prerequisite for this course)
- ARC 1010 Classical Architecture Workshop (3)
- ARC 2110 Architecture Studio I (4)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC 2210</td>
<td>Architecture Studio II (4)</td>
</tr>
<tr>
<td>ARC 2220</td>
<td>Construction Documents and Specifications (3)</td>
</tr>
</tbody>
</table>

Civil Drafting and Design Track. (Students select this track if interested in a career in civil drafting and design. Students may also apply these courses to several focus areas within the Surveying and Mapping B.S. degree.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGDT 1020</td>
<td>3D Architectural Modeling (3)</td>
</tr>
<tr>
<td>EGDT 1040</td>
<td>Fundamentals of Technical Engineering Drawing (3)</td>
</tr>
<tr>
<td>EGDT 1060</td>
<td>MicroStation Infrastructure Design (3)</td>
</tr>
<tr>
<td>EGDT 1300</td>
<td>Structural Drafting (3)</td>
</tr>
<tr>
<td>EGDT 1400</td>
<td>Surveying Applications and Field Techniques I (3)</td>
</tr>
<tr>
<td>EGDT 1600</td>
<td>Technical Math Algebra (3)</td>
</tr>
<tr>
<td>or EGDT 1610</td>
<td>Technical Math Geometry Trig (3) (MATH 1050 is a prerequisite for MATH 1060 Trigonometry)</td>
</tr>
<tr>
<td>or MATH 1060</td>
<td>Trigonometry QL (3)</td>
</tr>
<tr>
<td>EGDT 2040</td>
<td>Piping Drafting (2)</td>
</tr>
<tr>
<td>EGDT 2400</td>
<td>Surveying Applications and Field Techniques II (3) (MATH 1050, MATH 1060, or EGDT 1600 are prerequisites for this course)</td>
</tr>
<tr>
<td>EGDT 2500</td>
<td>3 Dimensional Modeling--Civil 3D (3)</td>
</tr>
</tbody>
</table>

Mechanical/Electrical Drafting and Design Track. (Students select this track if interested in a career in mechanical drafting and design.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGDT 1010</td>
<td>Electrical Electronic Drafting (3)</td>
</tr>
<tr>
<td>EGDT 1040</td>
<td>Fundamentals of Technical Engineering Drawing (3)</td>
</tr>
<tr>
<td>EGDT 1050</td>
<td>Introduction to 3D Printing PP (2)</td>
</tr>
<tr>
<td>EGDT 1070</td>
<td>3 Dimensional Modeling--Inventor (3)</td>
</tr>
<tr>
<td>or EGDT 1071</td>
<td>3 Dimensional Modeling--Solidworks (3)</td>
</tr>
<tr>
<td>EGDT 1200</td>
<td>Mechanical Drafting (3)</td>
</tr>
<tr>
<td>EGDT 2020</td>
<td>Descriptive Geometry (3)</td>
</tr>
<tr>
<td>EGDT 2200</td>
<td>Advanced Mechanical (3)</td>
</tr>
<tr>
<td>EGDT 2600</td>
<td>Applied Structures I - Statics (3) (MATH 1050, or EGDT 1600 and EGDT 1610 are prerequisites for this course)</td>
</tr>
<tr>
<td>EGDT 2610</td>
<td>Applied Structures II - Strength of Materials (3) (MATH 1050, or EGDT 1600 and EGDT 1610 are prerequisites for this course)</td>
</tr>
</tbody>
</table>

Structural Drafting and Design Track. (Students select this track if interested in a career in structural drafting and design.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGDT 1020</td>
<td>3D Architectural Modeling (3)</td>
</tr>
<tr>
<td>EGDT 1040</td>
<td>Fundamentals of Technical Engineering Drawing (3)</td>
</tr>
<tr>
<td>EGDT 1100</td>
<td>Architectural Drafting and Design (3)</td>
</tr>
<tr>
<td>EGDT 1300</td>
<td>Structural Drafting (3)</td>
</tr>
<tr>
<td>EGDT 1600</td>
<td>Technical Math Algebra (3)</td>
</tr>
<tr>
<td>or MATH 1060</td>
<td>Trigonometry (3)</td>
</tr>
</tbody>
</table>

General Drafting and Design Track. (Students select this track if interested in a career in general techniques and principles.) Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGDT 1020</td>
<td>3D Architectural Modeling (3)</td>
</tr>
<tr>
<td>EGDT 1040</td>
<td>Fundamentals of Technical Engineering Drawing (3)</td>
</tr>
<tr>
<td>EGDT 1070</td>
<td>3 Dimensional Modeling--Inventor (3)</td>
</tr>
<tr>
<td>or EGDT 1071</td>
<td>3 Dimensional Modeling--Solidworks (3)</td>
</tr>
<tr>
<td>EGDT 1300</td>
<td>Structural Drafting (3)</td>
</tr>
<tr>
<td>EGDT 1400</td>
<td>Surveying Applications and Field Techniques I (3)</td>
</tr>
</tbody>
</table>

Choose 11 Credits of Electives from the following: (Some courses may have additional prereqs.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC 1010</td>
<td>Classical Architecture Workshop (3)</td>
</tr>
<tr>
<td>ARC 2110</td>
<td>Architecture Studio I (4)</td>
</tr>
<tr>
<td>ARC 2210</td>
<td>Architecture Studio II (4)</td>
</tr>
<tr>
<td>EGDT 1010</td>
<td>Electrical Electronic Drafting (3)</td>
</tr>
<tr>
<td>EGDT 1050</td>
<td>Introduction to 3D Printing PP (2)</td>
</tr>
<tr>
<td>EGDT 1060</td>
<td>MicroStation Infrastructure Design (3)</td>
</tr>
<tr>
<td>EGDT 1100</td>
<td>Architectural Drafting and Design (3)</td>
</tr>
<tr>
<td>EGDT 1200</td>
<td>Mechanical Drafting (3)</td>
</tr>
<tr>
<td>EGDT 1300</td>
<td>Structural Drafting (3)</td>
</tr>
<tr>
<td>EGDT 1600</td>
<td>Technical Math Algebra (3)</td>
</tr>
<tr>
<td>EGDT 1610</td>
<td>Technical Math Geometry Trig (3)</td>
</tr>
<tr>
<td>EGDT 1720</td>
<td>Architectural Rendering FF (3)</td>
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<tr>
<td>EGDT 2020</td>
<td>Descriptive Geometry (3)</td>
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<tr>
<td>EGDT 2040</td>
<td>Piping Drafting (2)</td>
</tr>
<tr>
<td>EGDT 2100</td>
<td>Architecture Materials and Methods (3)</td>
</tr>
<tr>
<td>EGDT 2200</td>
<td>Advanced Mechanical (3)</td>
</tr>
<tr>
<td>EGDT 2300</td>
<td>Advanced Structural--CAD (3)</td>
</tr>
<tr>
<td>EGDT 2310</td>
<td>Structural Steel Modeling (3)</td>
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<tr>
<td>EGDT 2400</td>
<td>Surveying Applications and Field Techniques II (3)</td>
</tr>
<tr>
<td>EGDT 2500</td>
<td>3 Dimensional Modeling--Civil 3D (3)</td>
</tr>
<tr>
<td>EGDT 2610</td>
<td>Applied Structures II - Strength of Materials (3)</td>
</tr>
<tr>
<td>EGDT 281R</td>
<td>Internship (1)</td>
</tr>
<tr>
<td>EGDT 285R</td>
<td>AEC Design Lecture Series (0.5)</td>
</tr>
</tbody>
</table>
### Graduation Requirements:

1. Completion of a minimum of 61 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

### Engineering Design Technology, A.S.

#### Careers

1. Graduates will be proficient in 5 major industrial areas of design and drafting.
2. Graduates will be conversant in the subject matter of all drafting disciplines at a 75% or higher level as demonstrated by oral presentation and display of samples of work completed while in the EGDT program.

### Related Careers

- Architectural and Civil Drafters
- Electrical and Electronics Drafters
- Mechanical Drafters
- Drafters, All Other

### Surveying Technology, A.A.S.

#### Requirements

The AAS in Surveying Technology meets the educational component for licensure as a Professional Land Surveyor (PLS) in the State of Utah according to the State of Utah Office of Administrative Rules 156-22-302(c)(1).

This degree prepares students for immediate employment beyond entry level work in surveying or civil engineering firms. Students will be prepared to perform many of the various field and office tasks related to surveying including site and topographic surveys, boundary investigation and research, map-making, various survey adjustment calculations, writing of legal property descriptions, and other survey technician duties and responsibilities.

### Total Program Credits: 63

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>MKTG 2200</td>
<td>Written Business Communication GI WE (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following Mathematics courses(Recommend EGDT 1600):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGDT 1600</td>
<td>Technical Math Algebra (3)</td>
<td></td>
</tr>
<tr>
<td>MATH 1060</td>
<td>Trigonometry QL (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete any approved Humanities, Fine Arts, or Foreign Language Distribution Course. (Recommend COMM 1020)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any approved Biology or Physical Science Course (Recommend PHYS 1010)</td>
<td></td>
</tr>
</tbody>
</table>

### Surveying and Technology Foundation 51 Credits

- 12 Credits

### Matriculation Requirements:

Before being formally admitted into the AAS Surveying Technology degree program, full and part-time students must matriculate into the AAS Surveying and Mapping Cohort by completing a Matriculation Application or before the July 15th deadline prior to the Fall cohort to which the student desires to gain entry.

No courses may be taken until the student has been approved by the Surveying and Mapping Program Coordinator.

Complete My Educator with an exam score of 80% or higher OR complete IM 2010 Business Computer Proficiency (3.0 credit hours) with B- or higher.

All Surveying and Mapping students who have been matriculated into the Associate of Applied Science degree program must have access to their own laptop computer which can be made available during classes and which meets the minimum hardware specifications as defined by current AutoCAD® hardware specifications prior to starting classes in the semester for which they have matriculated.

### General Education Requirements: 12 Credits

Complete one of the following English courses (Recommend MKTG 220G):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 1020</td>
<td>Introduction to Surveying and Mapping WE</td>
</tr>
<tr>
<td>EGDT 1040</td>
<td>Fundamentals of Technical Engineering Drawing</td>
</tr>
<tr>
<td>EGDT 1400</td>
<td>Surveying Applications and Field Techniques I</td>
</tr>
<tr>
<td>EGDT 1610</td>
<td>Technical Math Geometry Trig</td>
</tr>
<tr>
<td>SURV 1030</td>
<td>Fundamentals of Geodesy and Control Surveys</td>
</tr>
<tr>
<td>SURV 1220</td>
<td>Remote Sensing and Photogrammetry</td>
</tr>
<tr>
<td>SURV 1340</td>
<td>Fundamentals of Boundary Law</td>
</tr>
<tr>
<td>SURV 2010</td>
<td>Land History of America WE</td>
</tr>
<tr>
<td>EGDT 2400</td>
<td>Surveying Applications and Field Techniques II</td>
</tr>
<tr>
<td>or SURV 2100</td>
<td>Mapping From Field to Finish</td>
</tr>
<tr>
<td>SURV 2310</td>
<td>Surveying US Public Lands</td>
</tr>
<tr>
<td>SURV 2320</td>
<td>Property Descriptions and Public Land Records</td>
</tr>
</tbody>
</table>

80 Course Catalog 2023-2024 Utah Valley University
**Surveying and Mapping, A.S.**

**Requirements**

Geomatics is the study of geospatial measurement and representation including such disciplines as land surveying, photogrammetry, remote sensing (satellite imaging and laser scanning), geographic information systems (GIS), cartography, global positioning systems (GPS), and some parts of geology and civil engineering. Geomatics is a discipline which integrates acquisition, modeling, analysis, and management of geo-spatial reference data. Based on the scientific framework of geodesy, it uses terrestrial, marine, airborne, satellite-based, sensors, and measurement systems and technologies to acquire spatial and other data.

The Land Surveying component of Geomatics includes investigation, analysis, and application of boundary/property laws and legal principles pertaining to specific public and private properties and is a regulated profession wherein a license to practice land surveying is issued by each state in an effort to protect the public and private interests in property boundaries.

Students in the Geomatics program may earn a Associate in Science in Geomatics which will help them be immediately employable as entry level surveyor GIS technician. Students may also earn a Bachelor of Science in Geomatics which will prepare them to successfully pass the national Fundamentals of Surveying (FS) exam which is a significant step towards surveying licensure.

The bachelor degree program has been developed around four core disciplines which build on an in-depth foundation of knowledge needed for the professional practice of surveying and GIS.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 2350</td>
<td>Ethics and Liabilities for Surveyors</td>
<td>2</td>
</tr>
<tr>
<td>GIS 2640</td>
<td>Fundamentals of Geographic Information Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Any lower division elective courses with the following prefixes: SURV, GIS, GEOG, EGDT, CIVE, CMGT, or MATH for a total of 12 credit hours

**Graduation Requirements:**

1. Completion of a minimum of 63 semester credits required for a AAS degree
2. Minimum overall grade point average 2.0 or above.
3. Residency hours: Minimum of 20 credit hours of Surveying and Mapping courses through course attendance at UVU.

**Surveying Technology, A.A.S.**

**Careers**

1. Implement the principles and practices of the professional Land Surveyor.
2. Integrate the professionals’ role and responsibilities of protecting the land rights, title, and interest of the public.
3. Perform all common land surveys using professionally acceptable metrology and geodesy principles and practices.
4. Create maps using professionally acceptable drafting, design, and cartographic principles and practices.
5. Develop prudent ethical judgement and critical thinking skills in making professional decisions.

**Related Careers**

- Cartographers and Photogrammetrists
- Surveyors
- Surveying and Mapping Technicians

**Total Program Credits: 60**

**General Education Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL</td>
<td>3</td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL</td>
<td>3</td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS</td>
<td>3</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
<td>2</td>
</tr>
</tbody>
</table>

**Distribution Courses:**

- Biology                                           3
- Physical Science                                   3
- Additional Biology or Physical Science              3
- Humanities                                         3
- Fine Arts                                          3
- Social/Behavioral                                  3

**Discipline Core Requirements:**

- 22 Credits

**Course Catalog 2023-2024**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 1020</td>
<td>Introduction to Surveying and Mapping WE</td>
<td>1</td>
</tr>
<tr>
<td>EGDT 1040</td>
<td>Fundamentals of Technical Engineering Drawing</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1400</td>
<td>Surveying Applications and Field Techniques I</td>
<td>3</td>
</tr>
</tbody>
</table>
Architecture and Engineering Design

Complete one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1060</td>
<td>Trigonometry QL</td>
<td>3</td>
</tr>
<tr>
<td>EGD 1600</td>
<td>Technical Math Algebra (3.0)</td>
<td>3</td>
</tr>
<tr>
<td>and EGD 1610</td>
<td>Technical Math Geometry Trig (3.0)</td>
<td>3</td>
</tr>
<tr>
<td>EGD 2400</td>
<td>Surveying Applications and Field Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GII</td>
<td>3</td>
</tr>
<tr>
<td>SURV 2310</td>
<td>Surveying US Public Lands (3.0)</td>
<td>3</td>
</tr>
<tr>
<td>SURV 2320</td>
<td>Property Descriptions and Public Land Records (3.0)</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements:
Approved Surveying and Mapping elective courses can be taken with the following prefixes: SURV, GIS, EGD, CIVE, CMGT, or MATH

Graduation Requirements:
1. Completion of a minimum of 60 or more semester credits.
2. Overall grade point average of 2.0 (C) or above (departments may require a higher GPA).
3. Residency hours: minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Footnote
* Students will be required to complete the My Educator exam with a score of 80 percent or higher or complete the IM 2010 course with a score of 80 percent or higher.

Surveying and Mapping, A.S.
Careers

1. Demonstrated critical thinking ability in performing surveying, mapping, or civil design duties and responsibilities at a professionally competent level and to communicate technical information effectively in a professional team environment.
2. Exercised prudent ethical judgement in professional decisions while protecting the land rights, title, and interest of the public.
3. Advanced professionally by being given more responsibilities; or have successfully completed a graduate level degree.
4. Demonstrated professional development through continuing education or earning certifications or professional licensure.
5. Served in their professional organizations and/or local communities.

Related Careers
• Cartographers and Photogrammetrists
• Surveyors
• Surveying and Mapping Technicians

Architectural Design Technology, Certificate of Proficiency
Requirements

The Certificate of Proficiency in Architectural Design Technology applies the technical and functional elements of residential and commercial architectural design. Students will take courses in the fundamentals of drafting and design, two-dimensional and three-dimensional software/Building Information Modeling (BIM) packages, architectural rendering, residential design and construction, and commercial design and construction.

Total Program Credits: 17

Graduation Requirements:
1. Completion of a minimum of 17 semester credits.
2. Minimum grade of C- required in all courses.
3. Overall grade point average of 2.0 (C) or above.
4. Residency hours-- minimum of 5 credit hours through course attendance at UVU.

Architectural Design Technology, Certificate of Proficiency
Careers

1. Demonstrate knowledge of architectural design, building codes, and construction methods and materials
2. Create quality, industry level design drawings for the design discipline
3. Use industry standard design software when producing design drawings

Related Careers
• Architectural and Civil Drafters

Civil Design and Surveying Technology, Certificate of Proficiency
Requirements

The Certificate of Proficiency in Civil Design and Surveying Technology will be dedicated to teaching the technical and functional elements of civil design and surveying, and will educate students in the process of taking civil related projects from data obtained from ground observations and measurements made by surveying to conceptual design to completed construction documents and finally to surveying and staking the proposed design on the ground so it can be constructed. Students will be required to take civil and surveying courses currently offered in the Engineering Design Technology (EDT) department including the courses from the Drafting Technology program and the Surveying and Mapping program. From these courses students will learn the basics of surveying, civil drafting and design, and be trained in industry standard two-dimensional and three-dimensional software packages. Students will also take courses in surveying applications, land development, advanced field and office surveying, and civil design. A student with a Certificate of Proficiency in Civil Design and Surveying Technology will be prepared for an entry level job as a civil drafter/designer or survey technician. They can increase their education, training, and employability by completing the Associate of Applied Science in Engineering Design Technology, Certificate of Proficiency in Mapping Technology, Certificate of Proficiency in Surveying Technology, Associate of Applied Science in Surveying Technology (pending), Associate of Science in Surveying and Mapping and/or a Bachelor of Science in Surveying and Mapping.

Total Program Credits: 18
Architecture and Engineering Design

Discipline Core Requirements: 12 Credits

Choose one of the following courses:

- EGDT 1600 Technical Math Algebra (3.0)
- or EGDT 1610 Technical Math Geometry Trig (3.0)
- or MATH 1060 Trigonometry QL (3.0)

EGDT 1040 Fundamentals of Technical Engineering Drawing 3

EGDT 1400 Surveying Applications and Field Techniques I 3

EGDT 2400 Surveying Applications and Field Techniques II 3

Elective Requirements: 6 Credits

Choose 6 credit hours:

Any course beginning with the following prefix may be taken as an elective: EGDT, SURV, GIS, ENGR, or CIVE

Graduation Requirements:

1. Completion of a minimum of 17 semester credits.
2. Minimum grade of C- required in all courses.
3. Overall grade point average of 2.0 (C) or above.
4. Residency hours-- minimum of 5 credit hours through course attendance at UVU.

Civil Design and Surveying Technology, Certificate of Proficiency

Careers

1. Implement the principles and practices of the Survey Technician, Mapper, and Civil Designer.
2. Perform all common land surveys and civil engineering plans using professionally acceptable principles and practices of civil design and surveying.
3. Create maps and plans using professionally acceptable drafting, design, and cartographic principles and practices.

Related Careers

- Cartographers and Photogrammetrists
- Surveyors
- Surveying and Mapping Technicians

Mechanical Design Technology, Certificate of Proficiency

Requirements

The Certificate of Proficiency in Mechanical Design Technology applies the technical and functional elements of mechanical design. Students will take courses in the fundamentals of drafting and design, basic mechanical drafting and design, two-dimensional and three-dimensional software packages, electrical design, and advanced mechanical design.

Total Program Credits: 17

Discipline Core Requirements: 17 Credits

- EGDT 1000 Introduction to Engineering Drawing and Technical Design 2
- EGDT 1010 Electrical Drafting and Design 3
- EGDT 1040 Fundamentals of Technical Engineering Drawing 3
- EGDT 1070 3 Dimensional Modeling--Inventor 3
- or EGDT 1071 3 Dimensional Modeling--Solidworks (3.0)
- EGDT 1200 Mechanical Drafting and Design 3
- EGDT 2200 Advanced Mechanical 3

Graduation Requirements:

1. Completion of a minimum of 17 semester credits.
2. Minimum grade of C- required in all courses.
3. Overall grade point average of 2.0 (C) or above.
4. Residency hours-- minimum of 5 credit hours through course attendance at UVU.

Structural Design Technology, Certificate of Proficiency

Careers

1. Demonstrate knowledge of mechanical design and engineering reference materials (Machinery’s Handbook).
2. Create quality, industry level design drawings for the design discipline.

Related Careers

- Mechanical Drafters

Structural Design Technology, Certificate of Proficiency

Requirements

The Certificate of Proficiency in Structural Design Technology applies the technical and functional elements of structural steel detailing. Students will take courses in the fundamentals of drafting and design, basic structural steel detailing, two-dimensional and three-dimensional software/Building Information Modeling (BIM) packages, and advanced structural design and detailing.

Total Program Credits: 17

Discipline Core Requirements: 17 Credits

- EGDT 1000 Introduction to Engineering Drawing and Technical Design 2
- EGDT 1020 3D Architectural Modeling 3
- EGDT 1040 Fundamentals of Technical Engineering Drawing 3
- EGDT 1300 Structural Drafting and Design 3
- EGDT 2300 Advanced Structural CAD 3
- EGDT 2310 Structural Steel Modeling 3

Graduation Requirements:

1. Completion of a minimum of 17 semester credits.
2. Minimum grade of C- required in all courses.
3. Overall grade point average of 2.0 (C) or above.
4. Residency hours-- minimum of 5 credit hours through course attendance at UVU.

Structural Design Technology, Certificate of Proficiency

Careers

1. Demonstrate knowledge of structural steel detailing/design and the AISC Standards.
2. Create quality, industry level design drawings for the design discipline.
Architecture and Engineering Design

3. Use industry standard design software when producing design drawings.

Related Careers
• Drafters, All Other

Surveying Technology, Certificate of Proficiency

Requirements
The Certificate of Proficiency in Surveying Technology is intended to provide part of the educational competency required for licensure as a Professional Land Surveyor (PLS) in the State of Utah. If an individual holds a bachelor of science degree in a related surveying field such as civil engineering or construction management, according to the State of Utah Office of Administrative Rules 156-22-302(c)(3), they may complete an additional 30 semester hours of surveying specific course work to complete the educational component for licensure. This certificate meets this regulatory educational requirement if the related degree includes algebra, calculus, geometry, statistics, or trigonometry. It prepares students for immediate employment beyond entry level work in surveying or civil engineering firms as a crew chief or a position with similar responsibilities. Students will be prepared to perform many of the various field and office tasks related to surveying including site and topographic surveys, boundary investigation and research, map-making, various survey adjustment calculations, writing of legal property descriptions, and other survey technician duties and responsibilities.

Total Program Credits: 28

<table>
<thead>
<tr>
<th>Surveying Technology Foundation</th>
<th>28 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 1020 Introduction to Surveying and Mapping WE</td>
<td>1</td>
</tr>
<tr>
<td>EGDT 1040 Fundamentals of Technical Engineering Drawing</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1400 Surveying Applications and Field Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>SURV 1220 Remote Sensing and Photogrammetry</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 2400 Surveying Applications and Field Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>SURV 2310 Surveying US Public Lands</td>
<td>3</td>
</tr>
<tr>
<td>SURV 2320 Property Descriptions and Public Land Records</td>
<td>3</td>
</tr>
<tr>
<td>SURV 3340 Boundary Law</td>
<td>3</td>
</tr>
<tr>
<td>Approved Surveying and Mapping elective courses can be taken with the following prefixes: SURV, GIS, GEOG, EGDT, ENGR, CIVE, CMGT, MATH, or LEGL. Total of 6 credit hours</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Completion of a minimum of 28 semester credits required for a Certificate of Completion in Surveying Technology
2. Overall grade point average 2.5 or above with a minimum of 3.0 GPA in all Surveying Technology courses. No grade lower than a "B" in all Surveying Technology Foundation courses.
3. Residency hours: Minimum of 8 credit hours of Surveying and Mapping courses through course attendance at UVU.

Surveying Technology, Certificate of Proficiency Careers

1. Implement the principles and practices of the professional Land Surveyor.
2. Integrate the professionals’ role and responsibilities of protecting the land rights, title, and interest of the public.
3. Perform the common land surveys using professionally acceptable metrology and geodesy principles and practices.
4. Create maps using professionally acceptable drafting, design, and cartographic principles and practices.
5. Develop prudent ethical judgement and critical thinking skills in making professional decisions.

Related Careers
• Cartographers and Photogrammetrists
• Surveyors
• Surveying and Mapping Technicians

Architecture, B.Arch

Requirements
The Bachelor of Architecture (B.Arch) is a five-year professional degree that prepares students for leadership in the profession of architecture and urban design. The program promotes a built environment that bolsters genuine communities through architecture that is durable, useful, beautiful, and human-scaled. Designed to meet the National Architectural Accreditation Board (NAAB) requirements, the degree is rooted in classical and traditional architecture with a holistic foundation in the craft of building, building technology, practice-based coursework, plan and document generation, building codes, specifications, digital parametric modeling, building information modeling, architectural visualization, digital fabrication, building envelope systems, structural systems, and sustainability. The program is structured as a two-plus-three stackable credential, awarding an Associate of Science in Engineering Design Technology (Architectural Design & Drafting Track) after the first two years and a comprehensive professional B.Arch degree for the final three years. This allows students who do not wish to pursue licensure a two-year path into the profession. In their final three years, students engage in coursework which readies them to become licensed, practicing architects, projects managers, principals, owners, and community leaders in the profession. Students learn to design buildings in a historical and cultural context through coursework in history, theory, culture, and community service. Concurrently, students engage in arts and science courses to expand critical thinking and understand current design and building technologies, making them ideal employees in architecture offices and related design & construction industries including civil, mechanical, and electrical engineering. Students acquire leadership skills through courses in professional practice, ethics, and architectural registration exam preparation. A total of at least 153 hours of coursework is required for the Bachelor of Architecture (B.Arch).

Total Program Credits: 153

Matriculation Requirements

1. Before being formally admitted into the Bachelor of Architecture (B-Arch) degree program, students must matriculate into the Architecture Cohort (the final 3 years of the program) by either completing the AS Engineering Design Technology (Architecture Design and Drafting Track) with a minimum grade of C or better in all courses, OR by completing matriculation requirements 2:

2. Complete the following courses with a C grade or better.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1010</td>
<td>Elementary Physics PP</td>
<td>3</td>
</tr>
<tr>
<td>or PHYS 2010</td>
<td>College Physics I PP (3)</td>
<td></td>
</tr>
<tr>
<td>EGDT 1020</td>
<td>3D Architectural Modeling</td>
<td>3</td>
</tr>
<tr>
<td>Course</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>EGDT 1100</td>
<td>Architectural Drafting and Design</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 2100</td>
<td>Architecture Materials and Methods</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 2600</td>
<td>Applied Structures I - Statics (MATH 1050 is a prerequisite for this course)</td>
<td>3</td>
</tr>
<tr>
<td>ARC 1010</td>
<td>Classical Architecture Workshop</td>
<td>4</td>
</tr>
<tr>
<td>ARC 2110</td>
<td>Architecture Studio I</td>
<td>4</td>
</tr>
<tr>
<td>ARC 2210</td>
<td>Architecture Studio II</td>
<td>3</td>
</tr>
<tr>
<td>ARC 2220</td>
<td>Construction Documents and Specifications</td>
<td>3</td>
</tr>
</tbody>
</table>

All Architecture students must complete a Matriculation Application and Portfolio by the appointed deadline during the Spring semester prior to the Fall Bachelor Degree cohort to which the student desires to gain entry. Subsequently an official acceptance letter must be obtained from the Architecture Program Coordinator prior to taking any further Architecture courses. Part-time students may be admitted into the Architecture cohort and may be allowed to proceed through the program at their own pace. All transfer credits must be approved in writing by UVU and the B-ARCH Program Coordinator.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4) (MATH 1050 is a prerequisite for many classes in the program core.)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
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</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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</tr>
<tr>
<td>and</td>
<td>HIST 2710 US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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</table>

Complete the following:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or</td>
<td>EXSC 1097 Fitness for Life TE (2)</td>
<td></td>
</tr>
<tr>
<td>PHYS 1010</td>
<td>Elementary Physics PP</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>PHYS 2010 College Physics I PP</td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>(Recommended BIOL 1010 General Biology)</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>(Recommended ENGL 2100 Technical Communication HH)</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>(Recommended COMM 1050 Introduction to Speech Communication)</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>(Recommended GEO 1010 Introduction to Geology)</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>(Recommended EGDT 1720 Architectural Rendering)</td>
<td>3</td>
</tr>
<tr>
<td>Discipline Core Requirements</td>
<td></td>
<td>102 Credits</td>
</tr>
</tbody>
</table>

**Elective Requirements**

Choose 15 credits from the following: (Some courses may have additional prereqs.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ARC 459R</td>
<td>Special Topics in Architecture (1-6)</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1040</td>
<td>Fundamentals of Technical Engineering Drawing (3)</td>
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<td>EGDT 1050</td>
<td>Introduction to 3D Printing and Fabrication PP (2)</td>
<td>3</td>
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<tr>
<td>EGDT 1070</td>
<td>3 Dimensional Modeling Inventor (3.0)</td>
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<td>EGDT 1071</td>
<td>3 Dimensional Modeling--Solidworks (3.0)</td>
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<tr>
<td>EGDT 1200</td>
<td>Mechanical Drafting and Design (3.0)</td>
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<tr>
<td>EGDT 1300</td>
<td>Structural Drafting and Design (3.0)</td>
<td>3</td>
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<tr>
<td>EGDT 1400</td>
<td>Surveying Applications and Field Techniques I (3.0)</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1720</td>
<td>Architectural Rendering FF (3.0)</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 2300</td>
<td>Advanced Structural CAD (3)</td>
<td></td>
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</table>
Architecture and Engineering Design

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGDT 2310</td>
<td>Structural Steel Modeling (3)</td>
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</tr>
<tr>
<td>EGDT 2400</td>
<td>Surveying Applications and Field Techniques II (3)</td>
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<tr>
<td>ART 1810</td>
<td>Introduction to Interior Design (3)</td>
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<tr>
<td>ART 1820</td>
<td>Interior Space Design (3)</td>
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<td>ART 1830</td>
<td>Residential Interior Design (3)</td>
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<tr>
<td>ART 2815</td>
<td>Historical Architecture and Interior Design FF (3)</td>
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<td>ART 2625</td>
<td>Modern Architecture Interiors and Furnishings (3)</td>
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<td>ARTH 2710</td>
<td>Prehistoric Through Gothic Art History FF (3)</td>
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<tr>
<td>ARTH 2720</td>
<td>Renaissance Through Contemporary Art History FF (3)</td>
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<td>ARTH 3010</td>
<td>History of Design and Visual Arts (3)</td>
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<td>ARTH 3015</td>
<td>Ancient Art of Egypt and the Near East (3)</td>
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<tr>
<td>ARTH 3020</td>
<td>Classical Art and Architecture History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3030</td>
<td>Medieval Art and Architecture History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3040</td>
<td>Renaissance Art History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3050</td>
<td>Baroque Art and Architecture History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3060</td>
<td>Nineteenth-Century Art History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3080</td>
<td>History of Architecture (3.0)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3100</td>
<td>History of American Art and Architecture (3.0)</td>
<td></td>
</tr>
<tr>
<td>CAW 1100</td>
<td>Artistic Wood Design (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 1190</td>
<td>Concrete and Framing Lab (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 1010</td>
<td>Introduction to Construction Management (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 1220</td>
<td>Finishing Lab (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 1020</td>
<td>Construction Materials and Methods I (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 2010</td>
<td>Construction Materials and Methods II (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 2080</td>
<td>Principles of Construction Scheduling (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 3030</td>
<td>Principles of Construction Estimating (3)</td>
<td></td>
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<tr>
<td>CMGT 3140</td>
<td>Construction Real Estate (3)</td>
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<tr>
<td>CMGT 3160</td>
<td>Building Information Modeling (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 4010</td>
<td>Construction Contracts (3)</td>
<td></td>
</tr>
<tr>
<td>DWDG 1400</td>
<td>Digital Design Essentials (3)</td>
<td></td>
</tr>
<tr>
<td>DAVG 1300</td>
<td>Animation Essentials (3)</td>
<td></td>
</tr>
<tr>
<td>and</td>
<td>Animation Essentials Lab</td>
<td></td>
</tr>
<tr>
<td>DAVG 130L</td>
<td>Animation Essentials Lab</td>
<td></td>
</tr>
<tr>
<td>DAVG 1200</td>
<td>3D Modeling Essentials (3)</td>
<td></td>
</tr>
<tr>
<td>DAVG 2210</td>
<td>3D Modeling and Animation (4)</td>
<td></td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 153 semester credits required for the B.Arch degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average of 2.5 or above, with a minimum grade of C- in all Architecture courses and elective requirements.
3. Residency hours: Minimum of 45 credit hours of Architecture courses through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.

**Architecture, B.Arch**

**Careers**

1. ARCHITECTURAL SOLUTIONS: Demonstrate the ability to integrate design solutions and utilize appropriate building materials, building systems, and sound construction practices.
2. BUILDING SYSTEMS KNOWLEDGE: Incorporate a wide range of technical skills and professional architectural knowledge during schematic design to demonstrate a comprehensive understanding of life safety, accessibility, and sustainability issues in making sound design decisions across varying scales and levels of complexity.
3. GRAPHIC DESIGN AND REPRESENTATION: Construct multifaceted two and three-dimensional graphic representation techniques using a wide variety of both traditional and digital methods, to describe the architectural design.
4. BUILDING DESIGN PRINCIPLES: The knowledge and the know how to apply design decisions through appropriate technical documentation to serve client’s needs, create a pleasing aesthetic, create cost-effective solutions, and become responsible stewards of the environment.
5. ARCHITECTURAL SOLUTIONS: Demonstrate the ability to integrate design solutions and utilize appropriate building materials, building systems, and sound construction practices.
6. PRACTICE OF ARCHITECTURE: Collaborate and lead teams of stakeholders throughout the design process.
7. Conceive, develop, and implement solutions to a wide range of design problems in the physical built environment.
8. Understand the ethics, legal requirements, financial and social responsibilities of professional practice.

**Related Careers**

- Architectural and Engineering Managers
- Architects, Except Landscape and Naval
- Architecture Teachers, Postsecondary

**Surveying and Mapping, B.S.**

**Requirements**

Surveying and Mapping is the study of geospatial measurement and representation including such disciplines as land surveying, photogrammetry, remote sensing (satellite imaging and laser scanning), geographic information systems (GIS), cartography, global positioning systems (GPS), and some parts of geography and civil engineering. Surveying and Mapping is a discipline which integrates acquisition, modeling, analysis, and management of geo-spatial reference data. Based on the scientific framework of geodesy, it uses terrestrial, marine, airborne, satellite-based sensors, and measurement systems and technologies to acquire spatial and other data. The Land Surveying component of Surveying and Mapping includes investigation, analysis, and application of boundary/property laws and legal principles pertaining to specific public and private properties and is a regulated profession wherein a license to practice land surveying is issued by each state in an effort to protect the public and private interests in property boundaries. Students in the Surveying and Mapping program may earn an Associate in Science in Surveying and Mapping which will help them be immediately employable as an entry level surveyor GIS technician.
Students may also earn a Bachelor of Science in Surveying and Mapping which will prepare them to successfully pass the national Fundamentals of Surveying (FS) exam which is a significant step towards surveying licensure.

The bachelor degree program has been developed around four core disciplines which build on an in-depth foundation of knowledge needed for the professional practice of surveying and GIS. Surveying and Mapping program goals are to secure ABET/ASAC accreditation by Fall Semester 2017 and to continue to encourage student interest in obtaining graduate degrees in the field of Surveying and Mapping from other nationally ranked institutions. The program is operating under an annual cohort system starting in the fall semester of each year, somatriculation is required to ensure that each perspective student completes all required course prerequisites prior to entrance into a cohort.

Total Program Credits: 121

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Before being formally admitted into the BS Surveying and Mapping, students must matriculate into the Surveying and Mapping Cohort (the final 2 years of the program) by either completing an AS in Surveying and Mapping with a minimum grade of C or better, (except for MATH 1060 and/or its equivalents which must be a B or better) OR by completing AS in Engineering Design Technology- Civil Drafting and Design Track OR by completing matriculation requirements 2 and 3:</td>
<td></td>
</tr>
<tr>
<td>2. Complete My Educator with an exam score of 80% or higher OR complete IM 2010 Business Computer Proficiency (3.0 credit hours) with B- or higher.</td>
<td></td>
</tr>
<tr>
<td>3. Complete the following courses with a B grade or better:</td>
<td></td>
</tr>
<tr>
<td>• SURV 1020 Introduction to Surveying and Mapping WE (1)</td>
<td></td>
</tr>
<tr>
<td>• EGDT 1040 Fundamentals of Technical Engineering Drawing (3)</td>
<td></td>
</tr>
<tr>
<td>• EGDT 1400 Surveying Applications and Field Techniques I (3)</td>
<td></td>
</tr>
<tr>
<td>• MATH 1060 Trigonometry (3)</td>
<td></td>
</tr>
<tr>
<td>• or EGDT 1600 Technical Math-Algebra (3)</td>
<td></td>
</tr>
<tr>
<td>• and EGDT 1610 Technical Math-Geometry/Trig (3)</td>
<td></td>
</tr>
<tr>
<td>• MKTG 220G Written Business Communication GI WE (3)</td>
<td></td>
</tr>
<tr>
<td>4. All Surveying and Mapping students must complete a Matriculation Application by the appointed deadline during the Spring semester prior to the Fall bachelor degree cohort to which the student desires to gain entry. Subsequently official approval must be obtained from the Program Coordinator prior to taking any further Surveying and Mapping courses. Part-time students may be admitted into the Surveying and Mapping cohort and may be allowed to proceed through the program at their own pace.</td>
<td></td>
</tr>
<tr>
<td>5. All Surveying and Mapping, Bachelor of Science degree program students must have access to their own laptop computer which can be made available during classes and which meets the minimum hardware specifications as defined by current AutoCAD® hardware specifications prior to starting classes in the semester for which they are matriculating.</td>
<td></td>
</tr>
</tbody>
</table>

General Education Requirements: 35 Credits

| ENGL 1010 Introduction to Academic Writing CC (3) | 3 |
| ENGH 1005 Literacies and Composition Across Contexts CC (5) |  |

Complete one of the following: 3

| MAT 1030 Quantitative Reasoning QL (3) |  |
| MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6) |  |
| STAT 1040 Introduction to Statistics QL (3) |  |
| STAT 1045 Introduction to Statistics with Algebra QL (5) |  |

Complete one of the following: 3

| MATH 1050 College Algebra QL (4) |  |
| MATH 1055 College Algebra with Preliminaries QL (5) |  |

Complete the following:

| HIST 1700 American Civilization AS (3) |  |
| HIST 1740 US Economic History AS (3) |  |
| HIST 2700 US History to 1877 AS (3) |  |
| HIST 2710 US History since 1877 AS (3) |  |
| POLS 1000 American Heritage SS (3) |  |
| POLS 1100 American National Government AS (3) |  |

Complete the following:

| PHIL 2050 Ethics and Values IH (3) |  |
| HLTH 1100 Personal Health and Wellness TE (2) |  |
| or EXSC 1097 Fitness for Life TE (2) |  |

Distribution Courses:

| Biology | 3 |
| Physical Science | 3 |
| Additional Biology or Physical Science | 3 |
| Humanities | 3 |
| Fine Arts | 3 |
| Social/Behavioral Science | 3 |

Discipline Core Requirements: 71 Credits

Surveying and Mapping Core
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1060</td>
<td>Trigonometry QL</td>
<td>3</td>
</tr>
<tr>
<td>or EGDT 1600</td>
<td>Technical Math Algebra (3)</td>
<td></td>
</tr>
<tr>
<td>and EGDT 1610</td>
<td>Technical Math Geometry Trig (3)</td>
<td></td>
</tr>
<tr>
<td>SURV 1020</td>
<td>Introduction to Surveying and Mapping</td>
<td>1</td>
</tr>
<tr>
<td>EGDT 1040</td>
<td>Fundamentals of Technical Engineering Drawing</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1400</td>
<td>Surveying Applications and Field Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 2400</td>
<td>Surveying Applications and Field Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GI WE</td>
<td>3</td>
</tr>
<tr>
<td>SURV 1220</td>
<td>Remote Sensing and Photogrammetry</td>
<td>3</td>
</tr>
<tr>
<td>SURV 2010</td>
<td>Land History of America WE</td>
<td>3</td>
</tr>
<tr>
<td>SURV 2310</td>
<td>Surveying US Public Lands</td>
<td>3</td>
</tr>
<tr>
<td>SURV 2320</td>
<td>Property Descriptions and Public Land Records</td>
<td>3</td>
</tr>
<tr>
<td>GIS 3600</td>
<td>Introduction to Geographic Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>GIS 3620</td>
<td>Advanced Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>SURV 3340</td>
<td>Boundary Law</td>
<td>3</td>
</tr>
<tr>
<td>SURV 3400</td>
<td>Surveying Applications and Field Techniques III</td>
<td>3</td>
</tr>
<tr>
<td>SURV 451R</td>
<td>Surveying and Mapping Lecture Series</td>
<td>2</td>
</tr>
<tr>
<td>SURV 455G</td>
<td>Global Professional Ethics and Liabilities GI</td>
<td>3</td>
</tr>
<tr>
<td>SURV 4930</td>
<td>Senior Surveying and Mapping Capstone WE</td>
<td>4</td>
</tr>
</tbody>
</table>

**Professional Focus Areas**

The following are suggested courses based on specific areas of professional/technical interest. You may choose all courses from one focus area or a combination of courses from both focus areas depending on personal goals.

**Professional Surveying License Focus Area**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 2030</td>
<td>Geodesy (3)</td>
<td></td>
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<tr>
<td>LEGL 3000</td>
<td>Business Law (3)</td>
<td></td>
</tr>
<tr>
<td>SURV 3010</td>
<td>Measurement Analysis and Adjustments (4)</td>
<td></td>
</tr>
<tr>
<td>SURV 3030</td>
<td>Land Development Planning, Platting, and Mapping (3)</td>
<td></td>
</tr>
<tr>
<td>SURV 3210</td>
<td>Advanced Photogrammetry (3)</td>
<td></td>
</tr>
<tr>
<td>SURV 3220</td>
<td>Control Surveys (3)</td>
<td></td>
</tr>
<tr>
<td>SURV 3230</td>
<td>Construction and Route Surveys (3)</td>
<td></td>
</tr>
<tr>
<td>SURV 4340</td>
<td>Surveying Legal Principles (3)</td>
<td></td>
</tr>
<tr>
<td>SURV 4500</td>
<td>Professional Services Practicum (3)</td>
<td></td>
</tr>
<tr>
<td>SURV 4700</td>
<td>Fundamentals of Surveying Exam Prep (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Civil Design and Mapping Focus Area**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGDT 1300</td>
<td>Structural Drafting (3)</td>
<td></td>
</tr>
<tr>
<td>EGDT 1060</td>
<td>MicroStation Infrastructure Design (3)</td>
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</tr>
<tr>
<td>SURV 2030</td>
<td>Geodesy (3)</td>
<td></td>
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<tr>
<td>EGDT 2040</td>
<td>Piping Drafting (2)</td>
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<tr>
<td>EGDT 2500</td>
<td>3 Dimensional Modeling--Civil 3D (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 3010</td>
<td>Construction Materials Testing (3)</td>
<td></td>
</tr>
<tr>
<td>SURV 3220</td>
<td>Control Surveys (3)</td>
<td></td>
</tr>
<tr>
<td>SURV 3230</td>
<td>Construction and Route Surveys (3)</td>
<td></td>
</tr>
<tr>
<td>EGDT 3450</td>
<td>Civil Design Systems (3)</td>
<td></td>
</tr>
<tr>
<td>EGDT 3500</td>
<td>Advanced Civil Drafting and Design (3)</td>
<td></td>
</tr>
<tr>
<td>Elective Requirements:</td>
<td>15 Credits</td>
<td></td>
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<tr>
<td>-------------------------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Approved Surveying and Mapping elective courses can be taken with the following prefixes: SURV, GIS, EGDT, ARC, ENGR, CIVE, PHYS, GEOG, CMGT, CS, ENST, MATH, or LEGL.</td>
<td></td>
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</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 121 semester credits required for a BS degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.5 or above with a minimum of 3.0 GPA in all Surveying and Mapping courses including Surveying and Mapping Core and Professional Focus Areas.
3. Residency hours: Minimum of 30 credit hours of Surveying and Mapping courses through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.
6. Taken the Fundamentals of Surveying (FS) exam offered by the National Council of Examiners for Engineering and Surveying (NCEES) if they have the Professional Surveying Focus.

**Surveying and Mapping, B.S.**

**Careers**

1. Demonstrated critical thinking ability in performing surveying, mapping, or civil design duties and responsibilities at a professionally competent level and to communicate technical information effectively in a professional team environment.
2. Exercised prudent ethical judgement in professional decisions while protecting the land rights, title, and interest of the public.
3. Advanced professionally by being given more responsibilities; or have successfully completed a graduate level degree.
4. Demonstrated professional development through continuing education or earning certifications or professional licensure.
5. Served in their professional organizations and/or local communities.

**Related Careers**

- Cartographers and Photogrammetrists
- Surveyors
- Surveying and Mapping Technicians
Art and Design

Art and Design

The Art and Design department is in the School of the Arts. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Art and Design department, visit their website.

Art and Design department

DEPARTMENT CHAIR
LOVELL, Travis Associate Professor

FACULTY
BULE, Steve Professor
ELEM, Reid Assistant Professor
FRY, Gareth Assistant Professor
FULLMER, Howard W. Associate Professor
HARDIN, Chad Wayne Associate Professor
JENSEN, Brian L. Professor
LANEGAN, Jason Assistant Professor
LOVELL, Travis Associate Professor
REES, John Associate Professor
STEELE-MAKASCI, Nancy Associate Professor
STEWART, Perry Alan Professor
TALBERT, Mark Professor
THORNOCK, Christopher Assistant Professor
TRUSCOTT, Brandon T. Associate Professor
TUTWILER, Amber Assistant Professor
VINCENT, Marcus A. Associate Professor
WILKEY, Patrick Associate Professor
YOUNG, Christopher Assistant Professor

Course Descriptions

Art.................................................................539
Art History..................................................548

Degrees & Programs

Art and Design - Design/Illustration Emphasis, A.A.S.

Requirements

The Applied Associate in Science is a two-year work-ready degree that helps prepare students for entry-level jobs within the Illustration industry. The program is ideal for students wanting to pursue careers in traditional illustration, digital illustration, or animation. Students have access to the best software in the industry and courses offer a well-rounded and practical learning experience. Courses in figure drawing, anatomy and figure structure, 3-D computer modeling, and imagination and creative problem solving are just a few of the classes available to students. Students in the illustration program benefit from interaction with instructors who are nationally known, professional illustrators. The AAS degree and credits earned can be used to continue studies in a Bachelor of Fine Arts in illustration.

Total Program Credits: 63

Graduation Requirements:

1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a C- in all Art and Design courses.
3. Residency hours--minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. Portfolio Submission.

Portfolio review required for students seeking the AAS - Art and Design - Graphic Design Emphasis (The Portfolio Review occurs after the first year of coursework. Students who do not pass the review may apply the first year of coursework to the AA or AS in Art & Design.)

General Education Requirements: 16 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>ENGH 1005 Literacies and Composition Across Contexts CC</td>
<td>5</td>
</tr>
</tbody>
</table>

Complete one of the following: (Note: A higher level MATH course may substitute for this requirement)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
</tbody>
</table>

Social or Behavioral Science 3

Biological or Physical Science 3

P.E. or Health 1

ARTH 2710 Prehistoric Through Gothic Art History FF 3

ARTH 2720 Renaissance Through Contemporary Art History FF 3

Discipline Core Requirements: 15 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1110 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 1120 2D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 1130 3D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 1400 Graphic Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>ART 1750 Intro to Digital Imaging</td>
<td>3</td>
</tr>
</tbody>
</table>

Emphasis Requirements: 32 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1210 Observational Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 1220 Perspective Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 2220 Imagination and Visual Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ART 2230 Illustrative Media and Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>ART 2240 Illustrative Media and Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>ART 2250 Gestural Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 2260 Digital Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 2270 Figure Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 2280 3D Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ART 200R Art and Design Lecture Series (1)</td>
<td>2</td>
</tr>
</tbody>
</table>

Emphasis Elective Requirements: 3 Credits

Complete 3 credits of ART/ARTH lower-division electives. Students are strongly encouraged to take either ARTH 2710 or ARTH 2720 (whichever course was not previously taken).
Art and Design - Design/Illustration Emphasis, A.A.S.

Careers

1. Visual Literacy: Demonstrate with proficiency: the ability to competently and skillfully implement the creative process; ideation, research and the execution of compelling images.
2. Professional Excellence: Demonstrate with proficiency: the ability to effectively communicate and present one’s self and work in a professional manner.
3. Creative Diversity: Demonstrate with proficiency: the ability to create images using digital and traditional media.
4. Interdisciplinary Collaboration and Cultural Responsibility: Demonstrate with proficiency: the ability to work with designers, art directors, project leads, and individual clients and provide relevant, high-quality images that successfully meet individual project requirements for a variety of diverse markets.

Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Commercial and Industrial Designers
- Graphic Designers
- Set and Exhibit Designers
- Designers, All Other

Art and Design - Graphic Design Emphasis, A.A.S.

Requirements

The Applied Associate in Science is a two-year work-ready degree that helps prepare students for entry level jobs within the Illustration industry. This degree and credits earned can be used to further their studies in a Bachelor of Fine Arts or other programs.

Total Program Credits: 63

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio review for students seeking the AAS Art and Design - Graphic Design Emphasis (The Portfolio Review occurs after the first year of coursework. Students who do not pass the review may apply the first year of coursework to the AA or AS in Art &amp; Design.)</td>
<td></td>
</tr>
</tbody>
</table>

General Education Requirements: 16 Credits

| ENGL 1010 | Introduction to Academic Writing CC | 3 |
| or ENGH 1005 | Literacies and Composition Across Contexts CC (5) |  |

Complete one of the following: (Note: A higher level MATH course may substitute for this requirement) 3

| MAT 1030 | Quantitative Reasoning QL (3) |  |
| MAT 1035 | Quantitative Reasoning with Integrated Algebra QL (6) |  |

Social or Behavioral Science 3

Biology or Physical Science 3

P.E. or Health 1

| ARTH 2710 | Prehistoric Through Gothic Art History FF (3) |  |
| or ARTH 2720 | Renaissance Through Contemporary Art History FF | 3 |

Discipline Core Requirements: 15 Credits

| ART 1110 | Drawing I | 3 |
| ART 1120 | 2D Design | 3 |
| ART 1130 | 3D Design | 3 |
| ART 1400 | Graphic Computer Applications | 3 |
| or | | |
| ART 1750 | Intro to Digital Imaging | 3 |

Emphasis Requirements: 32 Credits

| ART 1410 | Typography I | 3 |
| ART 1420 | Graphic Design I | 3 |
| AAS Portfolio Review |  |  |
| DWDD 1600 | Web Essentials | 3 |
| ART 2280 | 3D Computer Modeling | 3 |
| ART 2400 | Production Design | 3 |
| ART 2430 | Branding I | 3 |
| ART 2440 | Motion Graphics I | 3 |
| ART 200R | Art and Design Lecture Series (1) | 2 |

Complete 9 credits from any ART/ARTH courses not previously used.

Graduation Requirements:

1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a C- in all Art and Design courses.
3. Residency hours–minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. Portfolio Submission.

Art and Design - Photography Emphasis, A.A.S.

Careers

1. Demonstrate with competency: the ability to develop conceptual design solutions in strategic alignment with the audience.
2. Demonstrate with competency: professionalism, self-learning, self motivation, reliability, and resource management, as they are underlying expectations of all coursework and professional work in the field.
3. Demonstrate with competency: an understanding of citizenship and ethics in relation to how graphic design should responsibly and beneficially contribute to society as a whole.
4. Demonstrate with competency: the ability to apply a variety of design styles relevantly according to the task at hand (a crucial skill for serving a diverse client base).

Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Commercial and Industrial Designers
- Graphic Designers
- Set and Exhibit Designers
- Designers, All Other

Art and Design - Photography Emphasis, A.A.S.

Requirements

The Applied Associate in Science is a two-year work-ready degree that helps prepare students for entry level jobs within the Illustration industry. This degree and credits earned can be used to further their studies in a Bachelor of Fine Arts or other programs.

Total Program Credits: 63

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio review for students seeking the AAS Art and Design - Graphic Design Emphasis (The Portfolio Review occurs after the first year of coursework. Students who do not pass the review may apply the first year of coursework to the AA or AS in Art &amp; Design.)</td>
<td></td>
</tr>
</tbody>
</table>

| ART 1110 | Drawing I | 3 |
| ART 1120 | 2D Design | 3 |
| ART 1130 | 3D Design | 3 |
| ART 1400 | Graphic Computer Applications | 3 |
| or | | |
| ART 1750 | Intro to Digital Imaging | 3 |
Art and Design

Art and Design - Photography Emphasis, A.A.S.

Graduation Requirements:

1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a C- in all Art and Design courses.
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. Portfolio Submission.

Art and Design - Photography Emphasis, A.A.S. Careers

1. Demonstrate with competency: the ability to create imagery on a professional level within the student’s chosen emphasis.

General Education Requirements: 16 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts C (5)</td>
<td></td>
</tr>
</tbody>
</table>

or

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
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</tr>
</tbody>
</table>

Social or Behavioral Science 3
Biological or Physical Science 3
P.E. or Health 1

Emphasis Requirements: 20 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1790</td>
<td>Dark Room Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ART 2700</td>
<td>Photography II</td>
<td>3</td>
</tr>
<tr>
<td>ART 2710</td>
<td>Documentary Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 2720</td>
<td>Color Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 2730</td>
<td>Photographic Lighting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 200R</td>
<td>Art and Design Lecture Series (1)</td>
<td>2</td>
</tr>
<tr>
<td>ART 3200</td>
<td>The History of Photography</td>
<td>3</td>
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</tbody>
</table>

Complete 12 credits of any ART/ARTH courses not previously used. Students are STRONGLY ADVISED to fulfill part of this requirement with the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 3740</td>
<td>Fine Art Photography WE (3)</td>
<td></td>
</tr>
<tr>
<td>ART 3750</td>
<td>Advanced Digital Imaging (3)</td>
<td></td>
</tr>
</tbody>
</table>

Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Commercial and Industrial Designers
- Graphic Designers
- Set and Exhibit Designers
- Designers, All Other

Art and Design, A.A.

Requirements

Students who elect to earn a bachelor of arts or associate of arts degree are required to complete a foreign language requirement, while those who earn a bachelor of science or associate of science degree have the option to take more electives. All of these degrees allow students to explore a few areas within the department and gain a more well-rounded education in the visual arts.

Total Program Credits: 61

Matriculation Requirements:

1. Portfolio review required

General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts C (5)</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following: (Note: A higher level MATH course may substitute for this requirement) 3

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<tr>
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<tbody>
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<tr>
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</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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</tr>
</tbody>
</table>

Complete the following:

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<tbody>
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<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
<td></td>
</tr>
</tbody>
</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
Art and Design, A.S.

Requirements

Students who elect to earn a bachelor of arts or associate of arts degree are required to complete a foreign language requirement, while those who earn a bachelor of science or associate of science degree have the option to take more electives. All of these degrees allow students to explore a few areas within the department and gain a more well-rounded education in the visual arts.

Total Program Credits: 61

1. Portfolio review required

General Education Requirements:

35 Credits

- ENGL 1010 Introduction to Academic Writing 3
- or ENGH 1005 Literacies and Composition Across Contexts 5
- ENGL 2010 Intermediate Academic Writing CC 3
- Complete one of the following: (Note: A higher level MATH course may substitute for this requirement) 3
  - MAT 1030 Quantitative Reasoning QL (3)
  - MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)

Graduation Requirements:

- Completion of a minimum of 61 semester credits.
- Overall grade point average of 2.0 (C) or above with no grade lower than a C- in all Art and Design courses.
- Residency hours—minimum of 20 credit hours through course attendance at UVU.
- Completion of GE and specified departmental requirements.
- Portfolio Submission.
- For the AA degree, completion of 8 credit hours of course work from one language

Art and Design, A.A.

Careers

1. VISUAL LITERACY: Demonstrate with competency the creation of compositions that successfully use the elements of art and principles of design.
2. PROFESSIONAL EXCELLENCE: Demonstrate with competency the ability to execute a professional-level body of work (in at least one form of media) in a way that reflects a professional level of aptitude and knowledge of technical and artistic skill sets.
3. CREATIVE DIVERSITY: Demonstrate with competency the ability to include individual expression/voice in a given body of work or to communicate unique ideas.

Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Commercial and Industrial Designers
- Graphic Designers
- Set and Exhibit Designers
- Designers, All Other

Discipline Core Requirements:

18 Credits

- ART 1120 2D Design 3
- ART 1130 3D Design 3
- ARTH 2720 Renaissance Through Contemporary Art History FF 3
- Complete 9 credits from the following list (please note: when selecting electives be mindful of prerequisite requirements for advanced courses): 9
  - ART 1110 Drawing I (3)
  - ART 1210 Observational Drawing (3)

Distribution Courses:

- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution 3
- ARTH 2710 Prehistoric Through Gothic Art History FF 3
- Social/Behavioral Science 3

Elective Requirements:

- 8 Credits
- Complete 8 credits of the same Foreign Language 8

Matriculation Requirements:

- 1. Portfolio review required

Utah Valley University

Course Catalog 2023-2024
Art and Design

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1350</td>
<td>Ceramics I FF (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1400</td>
<td>Graphic Computer Applications (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1420</td>
<td>Graphic Design I (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1750</td>
<td>Intro to Digital Imaging (3)</td>
<td></td>
</tr>
<tr>
<td>ART 2630</td>
<td>Painting I (3)</td>
<td></td>
</tr>
</tbody>
</table>

Elective Requirements: 8 Credits

Complete a minimum of 8 credits from any ART/ARTH Course not already required. Courses relative to the type of Bachelors Degree you plan to pursue are recommended. (See department advisor for appropriate courses.)

Graduation Requirements:
1. Completion of a minimum of 61 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a C- in all Art and Design courses.
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. Portfolio Submission.

Art and Design, A.S.

Careers
1. VISUAL LITERACY: Demonstrate with competency the creation of compositions that successfully use the elements of art and principles of design.
2. PROFESSIONAL EXCELLENCE: Demonstrate with competency the ability to execute a professional-level body of work (in at least one form of media) in a way that reflects a professional-level of aptitude and knowledge of technical and artistic skill sets.
3. CREATIVE DIVERSITY: Demonstrate with competency the ability to include individual expression/voice in a given body of work or to communicate and express unique ideas.

Related Careers
- Art, Drama, and Music Teachers, Postsecondary
- Commercial and Industrial Designers
- Graphic Designers
- Set and Exhibit Designers
- Designers, All Other

Entertainment Design, A.A.S.

Requirements
A successful career in Entertainment Design requires a limitless imagination, the ability to invent and conceptualize new realities, and an understanding of the traditional and technological tools used to do so. This interdisciplinary degree encompasses concept, character, story, place, and time relevant to the entertainment industry. Students can expect to learn the skills and creative ability required of concept artists in the disciplines of character and story development such as character design, storyboarding, motion sequencing, and art direction. As an Entertainment Designer, you will create realities and experiences that excite minds by combining art and technology to bring extraordinary experiences to life in toys, games, comics, movies, environments, and more.

Total Program Credits: 65

Matriculation Requirements:
- General Education Requirements: 23 Credits
- Portfolio Review
- Completion of a minimum of 8 credits from any ART/ARTH Course not already required. Courses relative to the type of Bachelors Degree you plan to pursue are recommended. (See department advisor for appropriate courses.)

Graduation Requirements:
1. Completion of a minimum of 65 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a C- in all Art and Design courses.
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. Portfolio Submission.

Entertainment Design, A.A.S.

Careers
1. Employ efficient and accurate drawing and painting abilities that convey an understanding of perspective, light, material and color.
2. Apply the use of anatomy, gesture, form, and staging in figure drawing and character design.
3. Apply principles of composition, color theory, and form to concept designs and illustrations as a way to emphasize and dramatize story.
Art and Design, Certificate of Completion

Requirements

The certificate provides basic instruction in both two-dimensional and three-dimensional using traditional and digital tools.

Total Program Credits: 30

Discipline Core Requirements: 18 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1120</td>
<td>2D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 1400</td>
<td>Graphic Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>ART 1110</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 1050</td>
<td>Photography I FF</td>
<td>3</td>
</tr>
<tr>
<td>or ART 1750</td>
<td>Intro to Digital Imaging (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 2710</td>
<td>Prehistoric Through Gothic Art History FF</td>
<td>3</td>
</tr>
<tr>
<td>or ARTH 2720</td>
<td>Renaissance Through Contemporary Art History FF (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1130</td>
<td>3D Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements: 12 Credits

Any ART course not already taken (See Department Advisor).

Graduation Requirements:

1. Portfolio Submission.
2. Completion of a minimum of 30 credits.
3. Overall GPA of 2.0 or higher.
4. Residency hours -- Minimum of 10 credits required through course attendance at UVU.

Art and Design, Certificate of Proficiency

Careers

1. Understand how to modify digital images.
2. Develop basic design skills.
3. Understand how to create page basic page layout skills.
4. Understand the elements and principles of design.
5. Apply elements and principles of design to a series of design problems.
6. Create projects based on such principles as line, shape, rhythm, contour, value, and contrast.

Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Commercial and Industrial Designers
- Graphic Designers
- Set and Exhibit Designers
- Designers, All Other

Art History, Minor

Requirements

Because art history is cross-disciplinary by nature, a minor in art history would compliment almost any degree, whether within or outside of the arts. The minor requires 18 credits of art history courses, including the survey classes Art to and from the Renaissance, as well as four upper division electives, ranging from ancient to contemporary art history. The minor creates a more diverse skill set for students of the visual arts,
as well as a more culturally rich educational experience for students outside of the arts.

Total Program Credits: 18

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>6 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 2710 Prehistoric Through Gothic Art History FF</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 2720 Renaissance Through Contemporary Art History FF</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Requirements:</th>
<th>12 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose 12 credits from the following:</td>
<td>12</td>
</tr>
<tr>
<td>ARTH 2800 Introduction to Art History Research and Methodology WE (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 300R Special Topics in Art History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3010 History of Design and Visual Arts (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3015 Ancient Art of Egypt and the Near East (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3020 Classical Art and Architecture History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3030 Medieval Art and Architecture History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3040 Renaissance Art History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3050 Baroque Art and Architecture History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3055 Northern Baroque Art History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3060 Nineteenth-Century Art History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3070 Modern Art and Architecture History WE (3)</td>
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<tr>
<td>ARTH 3080 History of Architecture (3)</td>
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<tr>
<td>ARTH 309G Introduction to Non Western Ancient Art GI (3)</td>
<td></td>
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<tr>
<td>ARTH 3100 History of American Art and Architecture (3)</td>
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<tr>
<td>ARTH 3110 The History of Illustration WE (3)</td>
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<tr>
<td>ARTH 3120 History of Contemporary Art (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3200 The History of Photography (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3300 Introduction to Museum Studies (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3310 Art Theory and Criticism (3)</td>
<td></td>
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<tr>
<td>ARTH 3400 Arts Management (3)</td>
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</tr>
<tr>
<td>ARTH 400R Art History Seminar WE (3)</td>
<td></td>
</tr>
</tbody>
</table>

Art History, Minor

Careers

1. VISUAL LITERACY: Demonstrate with competency a deep understanding of specific art historical styles, movements, and trends by presenting or analyzing visual characteristics, techniques, and approaches.

2. PROFESSIONAL EXCELLENCE: Demonstrate with competency the ability to conduct scholarly research and to demonstrate an understanding of current art historical scholarship and academic writing formalities. Show consideration of creative and critical thinking skills as evidenced by well-reasoned and well-researched arguments and analysis that incorporate a level of original thought.

3. CREATIVE DIVERSITY: Demonstrate with competency a deep understanding of the cultural, social, and historical contexts/influences of specific artworks, styles, and themes. Might consider (but not limited to): analyzing connections or distinctions between one or more cultures or time periods, exploring the creation of cultural meaning through symbols and artistic messages, and analyzing the historical value and relevance of specific artworks or approaches.

Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Archivists
- Curators
- Museum Technicians and Conservators

Art Education, B.S.

Requirements

The Bachelor of Science in Art Education prepares students to qualify for teaching licensure for 7--12th grade. Curriculum is designed to give students a background in general education, as well as secondary education. Students can also focus on a single studio area within visual arts such as painting/drawing, sculpture/ceramics, illustration or printmaking.

Total Program Credits: 120

Matriculation Requirements:

Students will apply for formal admission to the Secondary Education and the Art and Design Department Art Education program in the semester prior to the beginning of their junior year. Admission criteria include:

1. ENGL and MATH QL courses must have a grade C or higher.
2. GPA of 3.0 or higher with no grade lower than a C in discipline core courses.
3. Completion of all General Education requirements and 70% of content area courses.
4. Pass LiveScan Criminal Background Check.

General Education Requirements:

35 Credits

<table>
<thead>
<tr>
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<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<td>or</td>
<td>ENGH 1005</td>
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<tr>
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<td>Intermediate Academic Writing CC</td>
</tr>
<tr>
<td>Complete one of the following:</td>
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<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
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<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (3)</td>
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<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
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<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
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<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (3)</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
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<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
</tr>
</tbody>
</table>
Must be completed with a grade of C or higher.

**Discipline Core Requirements:**

<table>
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<td>American Heritage SS (3)</td>
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**Distribution Courses:**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
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</tr>
<tr>
<td>ART 1350</td>
<td>Ceramics I FF (fulfills Fine Arts)</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Discipline Core Requirements: 85 Credits

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits, with a minimum of 40 credits of upper division credit.
2. Overall GPA of 3.0 (B) or above with no grade lower than a C in discipline core courses and no grade lower than a B- in Licensure and Methods courses.
3. Completion of GE and specified departmental requirements.
4. Portfolio Submission
5. Successful completion of at least one Global/Intercultural course

**Art Education, B.S.**

**Careers**

1. **VISUAL LITERACY:** Demonstrate with proficiency the expression of personal creative and artistic skills in diverse media and technologies, traditional to contemporary, including an emphasis in one medium. Demonstrate with proficiency knowledge of the diverse artistic skills, creative expressions, and contextual understandings applied by artists throughout time and place to communicate the human experience.
2. **PROFESSIONAL EXCELLENCE:** Demonstrate with proficiency knowledge of applying and assessing educational theories and pedagogical practices that support a diverse understanding of 21st century adolescent development and learning according to state and national art education standards. Demonstrate with proficiency self-evaluative practices supportive of an ongoing professional and ethical demeanor of leadership and collaboration in the classroom and school community.
3. **CREATIVE DIVERSITY:** Demonstrate with proficiency the application of a broad range of teaching methods that encourage individual creative expression, critical thinking, and problem solving for the 21st century secondary classroom. Demonstrate with proficiency the ability to promote meaningful artistic and creative partnerships and resolutions that empower individuals, schools, and communities across diverse contexts. Demonstrate with proficiency teaching methods that engage students’ awareness and critique of the art world and its impact on social, ethical, and cultural issues within local and global communities.

**Related Careers**

- Education Teachers, Postsecondary
- Art, Drama, and Music Teachers, Postsecondary
- Middle School Teachers, Except Special and Career/Technical Education
- Secondary School Teachers, Except Special and Career/Technical Education
Art and Design

Art History, B.A.

Requirements

The Bachelors of Art in Art History degree at UVU offers a strong foundation in the study of art history and the liberal arts, with an emphasis on both intellectual and practical skills. The department offers an array of art history courses on topics ranging from ancient culture to contemporary art, as well as specialized courses on such relevant topics as museum studies and arts management.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>36 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
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<tr>
<td>or ENGL 1005 Literacies and Composition Across Context CC (5)</td>
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</tr>
<tr>
<td>or ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
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</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>3</td>
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<tr>
<td>STAT 1040</td>
<td>3</td>
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<tr>
<td>STAT 1045</td>
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<td>MATH 1050</td>
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<td>MATH 1055</td>
<td>5</td>
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<td>MATH 1090</td>
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Complete one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700 American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740 US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000 American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100 American National Government AS (3)</td>
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</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100 Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097 Fitness for Life TE (2)</td>
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</tbody>
</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>Category</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
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<td>Physical Science</td>
<td></td>
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</tr>
<tr>
<td>Additional Biology or Physical Science</td>
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<tr>
<td>Humanities Distribution</td>
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<tr>
<td>Fine Arts</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
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</table>

Discipline Core Requirements: 51 Credits

Art Studio Core: Complete one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART 1020 Basic Drawing for Non-Majors FF (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1050 Photography I FF (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1120 2D Design (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1130 3D Design (3)</td>
<td></td>
</tr>
</tbody>
</table>

Art History foundation core: complete the following--

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ARTH 2710 Prehistoric Through Gothic Art History FF (3)</td>
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</tr>
<tr>
<td>ARTH 2720 Renaissance Through Contemporary Art History FF (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 2800 Introduction to Art History Research and Methodology WE (3)</td>
<td></td>
</tr>
</tbody>
</table>

Art History Upper Division: complete eleven courses from the following--

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ARTH 300R Special Topics in Art History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3010 History of Design and Visual Arts (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3015 Ancient Art of Egypt and the Near East (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3020 Classical and Architecture History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3030 Medieval Art and Architecture History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3040 Renaissance Art History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3050 Baroque Art and Architecture History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3055 Northern Baroque Art History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3060 Nineteenth-Century Art History (3)</td>
<td></td>
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<tr>
<td>ARTH 3070 Modern Art and Architecture History WE (3)</td>
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</tr>
<tr>
<td>ARTH 3080 History of Architecture (3)</td>
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<tr>
<td>ARTH 309G Introduction to Non Western Ancient Art (3)</td>
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<tr>
<td>ARTH 3100 History of American Art and Architecture (3)</td>
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<tr>
<td>ARTH 3120 History of Contemporary Art (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3200 The History of Photography (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3300 Introduction to Museum Studies (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3310 Art Theory and Criticism (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3400 Arts Management (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 350G Latin American Art and Architectural History GI (3)</td>
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</tr>
</tbody>
</table>

Seminars:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 400R Art History Seminar WE (3) (Complete a minimum of two)</td>
<td></td>
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</tbody>
</table>

Elective Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Foreign Language (1010, 1020, 2010 levels. German or French are recommended)</td>
<td></td>
</tr>
</tbody>
</table>

Complete any courses from Humanities, History, Philosophy, English, Art, or Art History (at least four courses must be 3000 level). The major adviser will have a list of approved courses.

Graduation Requirements:

1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above and a grade point average of 3.0 (B) or above in all ARTH courses.
Art and Design

Art History, B.A.

Careers

1. VISUAL LITERACY: Demonstrate with proficiency a deep understanding of specific art historical styles, movements, and trends by presenting or analyzing visual characteristics, techniques, and approaches.
2. PROFESSIONAL EXCELLENCE: Demonstrate with proficiency the ability to conduct scholarly research and to demonstrate an understanding of current art historical scholarship and academic writing formalities. Should consider creative and critical thinking skills as evidenced by well-reasoned and well-researched arguments and analysis that incorporate a level of original thought.
3. CREATIVE DIVERSITY: Demonstrate with proficiency a deep understanding of the cultural, social, and historical contexts/influences of specific artworks, styles, and themes. Might consider (but not limited to): analyzing connections or distinctions between one or more cultures or time periods, exploring the creation of cultural meaning through symbols and artistic messages, and analyzing the historical value and relevance of specific artworks or approaches.

Related Careers

• Art, Drama, and Music Teachers, Postsecondary
• Archivists
• Curators
• Museum Technicians and Conservators

Art and Design - Graphic Design Emphasis, B.F.A.

Requirements

Situated in the heart of the “Silicon Slopes,” UVU’s graphic design program is uniquely situated to offer students cutting-edge learning, internship, and job-placement opportunities. As students use the latest software to practice communicating creatively using typography and imagery, they learn to approach problem solving from marketing and artistic standpoints that resonate with target audiences. Courses emphasize creative, concept-intensive communication, and effective design implementation in both print and interactive design.

Total Program Credits: 120

Matriculation Requirements:

1. AA, AS, or AAS Degree or equivalent in Art and Design or advisor approval (Graphic Design Emphasis B.F.A. candidates must complete the AAS Degree or equivalent in Graphic Design; Illustration Emphasis. B.F.A. candidates must complete the AAS Degree or equivalent in Illustration)
2. Portfolio Review

General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following: (NOTE: A higher level MATH course may substitute for this requirement)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>or HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
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<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete the following:

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<tr>
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</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
<td>2</td>
</tr>
</tbody>
</table>

Distribution Courses:

Biology

Physical Science

Additional Biology or Physical Science

Humanities

ARTH 2710 Prehistoric Through Gothic Art History FF | 3

Social/Behavioral Science

Discipline Core Requirements: 26 Credits

Courses taken to fulfill individual program emphases will not also count toward the Discipline Core Requirements (credit will not count twice)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1120</td>
<td>2D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 1130</td>
<td>3D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 200R</td>
<td>Art and Design Lecture Series (1) (Must be taken 2 times)</td>
<td>2</td>
</tr>
<tr>
<td>ART 499R</td>
<td>BFA Project WE (3) (must be taken in two consecutive semesters)</td>
<td>6</td>
</tr>
<tr>
<td>ARTH 2720</td>
<td>Renaissance Through Contemporary Art History FF</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete 9 credits from the following list (please note: ART 1210 is required for Illustration BFA degrees, ART 1110 is required for Painting/Drawing BFA degrees, ART 1400 is required for Graphic Design and Illustration BFA degrees, ART 1750 is required for Photography BFA degrees)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1110</td>
<td>Drawing I (3)</td>
<td>3</td>
</tr>
<tr>
<td>ART 1210</td>
<td>Observational Drawing (3)</td>
<td>3</td>
</tr>
<tr>
<td>ART 1350</td>
<td>Ceramics I FF (3)</td>
<td>3</td>
</tr>
<tr>
<td>ART 1400</td>
<td>Graphic Computer Applications (3)</td>
<td>3</td>
</tr>
<tr>
<td>ART 1420</td>
<td>Graphic Design I (3)</td>
<td>3</td>
</tr>
<tr>
<td>ART 1750</td>
<td>Intro to Digital Imaging (3)</td>
<td>3</td>
</tr>
<tr>
<td>ART 2630</td>
<td>Painting I (3)</td>
<td>3</td>
</tr>
</tbody>
</table>
Art and Design

| ART 1410 | Typography I | 3 |
| ART 1420 | Graphic Design I | 3 |

AAS Portfolio Review

<table>
<thead>
<tr>
<th>Lower Division Core:</th>
<th>15 Credits</th>
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<tbody>
<tr>
<td>DWDD 1600</td>
<td>Web Essentials</td>
</tr>
<tr>
<td>ART 2280</td>
<td>3D Computer Modeling</td>
</tr>
<tr>
<td>ART 2400</td>
<td>Production Design</td>
</tr>
<tr>
<td>ART 2430</td>
<td>Branding I</td>
</tr>
<tr>
<td>ART 2440</td>
<td>Motion Graphics I</td>
</tr>
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</table>

BFA Portfolio Review

<table>
<thead>
<tr>
<th>Upper Division Core:</th>
<th>12 Credits</th>
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</thead>
<tbody>
<tr>
<td>ART 3420</td>
<td>Typography II</td>
</tr>
<tr>
<td>ART 3440</td>
<td>Motion Graphics II</td>
</tr>
<tr>
<td>ART 3450</td>
<td>Branding II</td>
</tr>
<tr>
<td>ART 3480</td>
<td>UI/UX Design II</td>
</tr>
</tbody>
</table>

Art History Requirements: 6 Credits

| ARTH 3010 | History of Design and Visual Arts | 3 |
| ARTH 3070 | Modern Art and Architecture History WE | 3 |

Capstone Requirements: 11 Credits

| ART 443R | Design Studio | 3 |
| ART 481R | Art and Design Internship (1) | 2 |

Complete 2 of the following: 6

| ART 4440 | Motion Graphics Studio (3) |
| ART 4480 | UI/UX Studio (3) |
| ART 443R | Design Studio (3) |

Emphasis Elective Requirements: 9 Credits

Complete any ART/ARTH courses not already used (Five credits must be upper division) 9

Graduation Requirements:

1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a C- in all Art and Design courses.
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Portfolio submission required during senior year.
6. Successful completion of at least one Global/Intercultural course.

Art and Design - Graphic Design Emphasis, B.F.A.

CAREERS

1. VISUAL LITERACY: Demonstrate proficient imagery selection and creation. Create proficient design through hierarchy, negative space, pacing, and graphic elements. Demonstrate proficient use of typography through selection, pairing, typesetting and/or stylization.
2. PROFESSIONAL EXCELLENCE: Demonstrate committed participation, sincere improvement, and dedicated work ethic. Present work professionally through variety, individuality, and craftsmanship.

3. CREATIVE DIVERSITY: Communicate concepts clearly and creatively. Exhibit work with others or collaborate on a project, paper or presentation in a culturally responsible manner.

Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Commercial and Industrial Designers
- Graphic Designers
- Set and Exhibit Designers
- Designers, All Other

Art and Design - Illustration Emphasis, B.F.A.

Requirements

The program is ideal for students wanting to pursue careers in traditional illustration, digital illustration, or animation. In addition to working with faculty who are professionals in their fields, students have access to the best software in the industry. Courses in figure drawing, children’s book illustration, anatomy and figure structure, flash animation, 3-D computer rendering, and advanced illustration are just a few of the classes available to students. The courses offer a well-rounded and practical learning experience. Students in the illustration program benefit from interaction with instructors who are nationally known professional illustrators.

Total Program Credits: 120

Matriculation Requirements:

1. AA, AS, or AAS Degree or equivalent in Art and Design or advisor approval (Graphic Design Emphasis B.F.A. candidates must complete the AAS Degree or equivalent in Graphic Design; Illustration Emphasis. B.F.A. candidates must complete the AAS Degree or equivalent in Illustration)
2. Portfolio Review

General Education Requirements: 35 Credits

| ENGL 1010 | Introduction to Academic Writing CC | 3 |
| or ENGH 1005 | Literacies and Composition Across Contexts CC (5) |
| ENGL 2010 | Intermediate Academic Writing CC | 3 |

Complete the following: (NOTE: A higher level MATH course may substitute for this requirement) 3

| MAT 1030 | Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors) |
| or MAT 1035 | Quantitative Reasoning with Integrated Algebra QL (6) |

Complete one of the following: 3

| HIST 2700 | US History to 1877 AS (3) |
| or HIST 2710 | US History since 1877 AS (3) |
| HIST 1700 | American Civilization AS (3) |
| HIST 1740 | US Economic History AS (3) |
| POLS 1000 | American Heritage SS (3) |
| POLS 1100 | American National Government AS (3) |

Complete the following:

| PHIL 2050 | Ethics and Values IH |
| or EXSC 1097 | Fitness for Life TE |

100 Course Catalog 2023-2024 Utah Valley University
### Distribution Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
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<tr>
<td>Physical Science</td>
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</tr>
<tr>
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<tr>
<td>ARTH 2710 Prehistoric Through Gothic Art History FF</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
</tr>
</tbody>
</table>

### Discipline Core Requirements: 26 Credits

Courses taken to fulfill individual program emphases will not also count toward the Discipline Core Requirements (credit will not count twice):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1120 2D Design</td>
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</tr>
<tr>
<td>ART 1130 3D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 200R Art and Design Lecture Series (1) (Must be taken 2 times)</td>
<td>2</td>
</tr>
<tr>
<td>ART 499R BFA Project WE (3) (must be taken in two consecutive semesters)</td>
<td>6</td>
</tr>
<tr>
<td>ARTH 2720 Renaissance Through Contemporary Art History FF</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete 9 credits from the following list (please note: ART 1210 is required for Illustration BFA degrees, ART 1110 is required for Painting/Drawing BFA degrees, ART 1400 is required for Graphic Design and Illustration BFA degrees, ART 1750 is required for Photography BFA degrees):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1110 Drawing I (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1210 Observational Drawing (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1350 Ceramics I FF (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1400 Graphic Computer Applications (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1420 Graphic Design I (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1750 Intro to Digital Imaging (3)</td>
<td></td>
</tr>
<tr>
<td>ART 2630 Painting I (3)</td>
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</tbody>
</table>

### Emphasis Requirements: 48 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART 1220 Perspective Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 2220 Imagination and Visual Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ART 2230 Illustrative Media and Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>ART 2240 Illustrative Media and Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>ART 2260 Digital Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 2270 Figure Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 2280 3D Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ART 3210 Narrative Illustration</td>
<td>3</td>
</tr>
<tr>
<td>ART 3220 Conceptual Illustration</td>
<td>3</td>
</tr>
<tr>
<td>ART 3240 Head Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 328R Painting the Human Head</td>
<td>3</td>
</tr>
<tr>
<td>ART 361R Figure Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 364R Figure Painting</td>
<td>3</td>
</tr>
<tr>
<td>ART 421R Advanced Illustration</td>
<td>3</td>
</tr>
<tr>
<td>ART 470R Figure Drawing III</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 3110 The History of Illustration WE</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete any ART/ARTH courses not already used (2 credit must be upper division).

### Graduation Requirements:

1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a C- in all Art and Design courses.
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Portfolio submission required during senior year.
6. Successful completion of at least one Global/Intercultural course.

### Art and Design - Illustration Emphasis, B.F.A. Careers

1. VISUAL LITERACY: Demonstrate proficient imagery selection and creation. Create proficient design through hierarchy, negative space, pacing, and graphic elements. Demonstrate proficient use of typography through selection, pairing, typesetting and/or stylization.
2. PROFESSIONAL EXCELLENCE: Demonstrate committed participation, sincere improvement, and dedicated work ethic. Present work professionally through variety, individuality, and craftsmanship.
3. CREATIVE DIVERSITY: Communicate concepts clearly and creatively. Exhibit work with others or collaborate on a project, paper or presentation in a culturally responsible manner.

### Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Commercial and Industrial Designers
- Graphic Designers
- Set and Exhibit Designers
- Designers, All Other

### Art and Design - Painting and Drawing Emphasis, B.F.A. Requirements

Within the painting/drawing program, students emphasize one of four areas: drawing, watermedia, painting, or printmaking. In their senior year, B.F.A. students receive one-on-one instruction from the professor of their choice. Students explore their personal artistic identity while learning the rigor and attention to detail needed to put together a solo exhibition as their culminating experience.

Total Program Credits: 120
## Art and Design

### Matriculation Requirements:

1. **AA, AS, or AAS Degree or equivalent in Art and Design or advisor approval** (Graphic Design Emphasis B.F.A. candidates must complete the AAS Degree or equivalent in Graphic Design; Illustration Emphasis. B.F.A. candidates must complete the AAS Degree or equivalent in Illustration)
2. **Portfolio Review**

### General Education Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following: (Note: A higher level MATH course may substitute for this requirement)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (recommended for Humanities or Arts majors)</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
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</tbody>
</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
<td></td>
</tr>
</tbody>
</table>

### Distribution Courses:

- Biology: 3 credits
- Physical Science: 3 credits
- Additional Biology or Physical Science: 3 credits
- Humanities: 3 credits
- ARTH 2710: Prehistoric Through Gothic Art History FF: 3 credits
- Social/Behavioral Science: 3 credits

### Discipline Core Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1120</td>
<td>2D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 1130</td>
<td>3D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 200R</td>
<td>Art and Design Lecture Series (1) (Must be taken 2 times)</td>
<td>2</td>
</tr>
<tr>
<td>ART 499R</td>
<td>BFA Project WE (3) (Must be taken in two consecutive semesters)</td>
<td>6</td>
</tr>
<tr>
<td>ARTH 2720</td>
<td>Renaissance Through Contemporary Art History FF</td>
<td>3</td>
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</tbody>
</table>

Complete 9 credits from the following list (please note: ART 1210 is required for Illustration BFA degrees, ART 1110 is required for Painting/Drawing BFA degrees, ART 1400 is required for Graphic Design and Illustration BFA degrees, ART 1750 is required for Photography BFA degrees):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1110</td>
<td>Drawing I</td>
<td>3</td>
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<tr>
<td>ART 1210</td>
<td>Observational Drawing (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1350</td>
<td>Ceramics I FF (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1400</td>
<td>Graphic Computer Applications (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1420</td>
<td>Graphic Design I (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1750</td>
<td>Intro to Digital Imaging (3)</td>
<td></td>
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<tr>
<td>ART 2630</td>
<td>Painting I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Emphasis Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1110</td>
<td>Drawing I</td>
<td></td>
</tr>
<tr>
<td>ART 1650</td>
<td>Watercolor FF</td>
<td>3</td>
</tr>
<tr>
<td>ART 2110</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 2620</td>
<td>Color Theory</td>
<td>3</td>
</tr>
<tr>
<td>ART 2630</td>
<td>Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 2640</td>
<td>Painting II</td>
<td>3</td>
</tr>
<tr>
<td>ART 2680</td>
<td>Printmaking I</td>
<td>3</td>
</tr>
<tr>
<td>ART 367R</td>
<td>Printmaking II</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 3070</td>
<td>Modern Art and Architecture History WE</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 3120</td>
<td>History of Contemporary Art</td>
<td>3</td>
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</table>

Complete two classes from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART 1340</td>
<td>Sculpture I FF (3)</td>
<td></td>
</tr>
<tr>
<td>or ART 1350</td>
<td>Ceramics I FF (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3020</td>
<td>Classical Art and Architecture History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3030</td>
<td>Medieval Art and Architecture History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3040</td>
<td>Renaissance Art History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3050</td>
<td>Baroque Art and Architecture History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3060</td>
<td>Nineteenth-Century Art History (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3100</td>
<td>History of American Art and Architecture (3)</td>
<td></td>
</tr>
</tbody>
</table>

### Emphasis Elective Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 4840</td>
<td>Professional Presentation for the Visual Arts WE</td>
<td>1</td>
</tr>
</tbody>
</table>

Complete minimum of 9 credit hours in one specialization.

### Drawing

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 311R</td>
<td>Drawing III (3) (may be taken twice)</td>
<td></td>
</tr>
<tr>
<td>ART 366R</td>
<td>Life Drawing (3) (may be taken twice)</td>
<td></td>
</tr>
<tr>
<td>ART 411R</td>
<td>Drawing IV (3) (may be taken twice)</td>
<td></td>
</tr>
<tr>
<td>ART 466R</td>
<td>Advanced Life Drawing (3) (may be taken twice)</td>
<td></td>
</tr>
</tbody>
</table>

### Painting

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 363R</td>
<td>Painting III (may be taken twice)</td>
<td></td>
</tr>
<tr>
<td>ART 369R</td>
<td>Contemporary Figure Painting (3) (may be taken thrice)</td>
<td></td>
</tr>
<tr>
<td>ART 463R</td>
<td>Painting IV (3) (may be taken twice)</td>
<td></td>
</tr>
</tbody>
</table>
Printmaking

ART 368R Printmaking III (3) (may be taken twice)

ART 468R Printmaking IV (3) (may be taken twice)

Complete 12.0 elective credits from upper-division specialization courses listed below. It is recommended to focus on depth in the selected specialization.

Painting

ART 363R Painting III (may be taken twice) (3)

ART 369R Contemporary Figure Painting (3) (may be taken twice)

ART 463R Painting IV (3) (may be taken twice)

Printmaking

ART 368R Printmaking III (may be taken twice) (3)

ART 468R Printmaking IV (may be taken twice) (3)

Complete one of the following additional Professional content courses: 12

ART 4820 Professional Presentation for the Visual Arts I WE (1)

ART 4830 Professional Practices for the Visual Arts II WE (1)

ART 4850 Professional Writing for the Visual Arts WE (1)

Graduation Requirements:

1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a C- in all Art and Design courses.
3. Residency hours--minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Portfolio submission required during senior year.
6. Successful completion of at least one Global/Intercultural course.

Footnote

1 ART 1110, 1350, and 2630 taken to fulfill this requirement will not also count toward the BFA Discipline Core (credit will not count twice).

Art and Design - Painting and Drawing Emphasis, B.F.A.

Careers

1. VISUAL LITERACY: Demonstrate with proficiency the creation of compositions that successfully use the elements of art and principles of design.
2. PROFESSIONAL EXCELLENCE: Demonstrate with proficiency the creation of a portfolio of cohesive and unified work. Demonstrate with proficiency the writing of an artist statement that successfully explains the process, purpose, and ideas of the student’s work. Demonstrate with proficiency the ability to obtain an exhibition space, organize, advertise, and install an exhibition of student’s art works from the BFA project course/courses.
3. CREATIVE DIVERSITY: Demonstrate with proficiency an individual expression/voice in student’s art.

Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Commercial and Industrial Designers
- Graphic Designers
- Set and Exhibit Designers
- Designers, All Other

Art and Design - Photography Emphasis, B.F.A.

Requirements

UVU’s photography program teaches the language of photography. Students will take courses to diversify their skill set in the creation and appreciation of different approaches to photography. They will work with film, historic photographic processes, and cutting edge digital technology. Students learn about and work in commercial and fine art environments. They will be taught working methods in the darkroom, studio lighting techniques, motion, and digital manipulation. The photo program emphasizes a hands-on and engaged approach. We actively look for opportunities to get our students on location and into real world scenarios through internships, study abroad programs, service oriented programs, and classes taught off campus.

Total Program Credits: 120

Matriculation Requirements:

1. AA, AS, or AAS Degree or equivalent in Art and Design or advisor approval (Graphic Design Emphasis B.F.A. candidates must complete the AAS Degree or equivalent in Graphic Design; Illustration Emphasis. B.F.A. candidates must complete the AAS Degree or equivalent in Illustration)
2. Portfolio Review

General Education Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>ENGH 1005 Literacies and Composition Across Contexts CC</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors)</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2710 US History since 1877 AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1700 American Civilization AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1740 US Economic History AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000 American Heritage SS (3)</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1100 American National Government AS (3)</td>
<td>3</td>
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</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
<td>3</td>
</tr>
</tbody>
</table>
Art and Design

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
<td></td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
<td>2</td>
</tr>
</tbody>
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**Distribution Courses:**

<table>
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<tr>
<th>Distribution</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Biology</td>
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<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
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<td>3</td>
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<tr>
<td>Additional Biology or Physical Science</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ARTH 2710</td>
<td>Prehistoric Through Gothic Art History FF</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td></td>
<td>3</td>
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</tbody>
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**Discipline Core Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1120</td>
<td>2D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 1130</td>
<td>3D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 200R</td>
<td>ART and Design Lecture Series (1) (Must be taken 2 times)</td>
<td>2</td>
</tr>
<tr>
<td>ART 499R</td>
<td>BFA Project WE (3) (Must be taken in two consecutive semesters)</td>
<td>6</td>
</tr>
<tr>
<td>ARTH 2720</td>
<td>Renaissance Through Contemporary Art History FF</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete 9 credits from the following list (please note: ART 1210 is required for Illustration BFA degrees, ART 1110 is required for Painting/Drawing BFA degrees, ART 1400 is required for Graphic Design and Illustration BFA degrees, ART 1750 is required for Photography BFA degrees):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1110</td>
<td>Drawing I (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1210</td>
<td>Observational Drawing (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1350</td>
<td>Ceramics I FF (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1400</td>
<td>Graphic Computer Applications (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1420</td>
<td>Graphic Design I (3)</td>
<td></td>
</tr>
<tr>
<td>ART 1750</td>
<td>Intro to Digital Imaging (3)</td>
<td></td>
</tr>
<tr>
<td>ART 2630</td>
<td>Painting I (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Emphasis Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1790</td>
<td>Dark Room Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ART 2700</td>
<td>Photography II</td>
<td>3</td>
</tr>
<tr>
<td>ART 2710</td>
<td>Documentary Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 2720</td>
<td>Color Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 2730</td>
<td>Photographic Lighting I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Emphasis Elective Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 3720</td>
<td>The History of Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 371R</td>
<td>Historical Photographic Processes</td>
<td>3</td>
</tr>
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<td>ART 3730</td>
<td>Photographic Lighting II</td>
<td>3</td>
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<td>ART 3740</td>
<td>Fine Art Photography WE</td>
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<tr>
<td>ART 3750</td>
<td>Advanced Digital Imaging</td>
<td>3</td>
</tr>
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<td>ART 471R</td>
<td>Photographic Illustration</td>
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<tr>
<td>ART 474R</td>
<td>Advanced Photo Studies</td>
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<td>ART 4750</td>
<td>Exploratory Photographic Processes</td>
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<tr>
<td>ART 481R</td>
<td>Art and Design Internship (1-6)</td>
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Complete any ART/ARTH courses not already used (6 credits must be upper division).

Take ONE of the following classes:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ARTH 3400</td>
<td>Arts Management (3)</td>
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</tr>
<tr>
<td>ARTH 3310</td>
<td>Art Theory and Criticism (3)</td>
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<tr>
<td>ARTH 3120</td>
<td>History of Contemporary Art (3)</td>
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<td>ARTH 3040</td>
<td>Renaissance Art History (3)</td>
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<td>ARTH 3050</td>
<td>Baroque Art and Architecture History (3)</td>
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<tr>
<td>ARTH 3060</td>
<td>Nineteenth-Century Art History (3)</td>
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</tr>
<tr>
<td>ARTH 3070</td>
<td>Modern and Architecture History WE (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a C- in all Art and Design courses.
3. Residency hours–minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Portfolio submission required during senior year.
6. Successful completion of at least one Global/Intercultural course.

**Art and Design - Photography Emphasis, B.F.A. Careers**

1. VISUAL LITERACY: Demonstrate with proficiency the ability to create imagery on a professional level within the student’s chosen emphasis. Demonstrate with proficiency the ability to conceptualize and execute concept within a photographic image.
2. PROFESSIONAL EXCELLENCE: Demonstrate with proficiency the ability to execute a professional-level body of photographic work. Demonstrate with proficiency the ability to self-critique and edit photographic work in a way that reflects a professional level of aptitude and knowledge of technical and artistic skill sets.
3. CREATIVE DIVERSITY: Demonstrate with proficiency the ability to include individual expression/voice in a given body of photographic work. Demonstrate with proficiency the ability to communicate and express unique ideas within photographic work.

**Related Careers**

- Art, Drama, and Music Teachers, Postsecondary
- Commercial and Industrial Designers
- Graphic Designers
- Set and Exhibit Designers
- Designers, All Other

**Art and Design - Sculpture and Ceramics Emphasis, B.F.A. Requirements**

UVU’s BFA in ceramics and sculpture helps students build a strong foundation of design fundamentals, technical skills, and the use of materials. Whether throwing clay on a potter’s wheel or listening to a class lecture, students discover endless sources of creative ideas while taking courses in low-fire ceramics, mold making, casting, ceramic technologies, and more.
Art and Design

Total Program Credits: 120

Matriculation Requirements:
1. AA, AS, or AAS Degree or equivalent in Art and Design or advisor approval (Graphic Design Emphasis B.F.A. candidates must complete the AAS Degree or equivalent in Graphic Design; Illustration Emphasis B.F.A. candidates must complete the AAS Degree or equivalent in Illustration)
2. Portfolio Review

General Education Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 1005</td>
<td>Literacies and Composition Across Context CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following: (Note: A higher level MATH course may substitute for this requirement)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors)</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>or HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
<td></td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
<td>2</td>
</tr>
</tbody>
</table>

Distribution Courses:
- Biology
- Physical Science
- Additional Biology or Physical Science
- Humanities

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 2710</td>
<td>Prehistoric Through Gothic Art History FF</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Discipline Core Requirements:
Courses taken to fulfill individual program emphases will not also count toward the Discipline Core Requirements (credit will not count twice)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1120</td>
<td>2D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 1130</td>
<td>3D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 200R</td>
<td>Art and Design Lecture Series (1) (Must be taken 2 times)</td>
<td>2</td>
</tr>
<tr>
<td>ART 499R</td>
<td>BFA Project WE (3) (Must be taken in two consecutive semesters)</td>
<td>6</td>
</tr>
<tr>
<td>ARTH 2720</td>
<td>Renaissance Through Contemporary Art History FF</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete 9 credits from the following list (please note: ART 1210 is required for Illustration BFA degrees, ART 1110 is required for Painting/Drawing BFA degrees, ART 1400 is required for Graphic Design and Illustration BFA degrees, ART 1750 is required for Photography BFA degrees):

- ART 1110 Drawing I (3)
- ART 1210 Observational Drawing (3)
- ART 1350 Ceramics I FF (3)
- ART 1400 Graphic Computer Applications (3)
- ART 1420 Graphic Design I (3)
- ART 1750 Intro to Digital Imaging (3)
- ART 2630 Painting I (3)

Emphasis Requirements:
Students emphasizing 3-D art complete the following (either ART 334R or ART 335R must be repeated):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1340</td>
<td>Sculpture I FF</td>
<td>3</td>
</tr>
<tr>
<td>ART 1350</td>
<td>Ceramics I FF</td>
<td>3</td>
</tr>
<tr>
<td>ART 1650</td>
<td>Watercolor FF</td>
<td>3</td>
</tr>
<tr>
<td>ART 2340</td>
<td>Sculpture II</td>
<td>3</td>
</tr>
<tr>
<td>ART 2350</td>
<td>Ceramics II</td>
<td>3</td>
</tr>
<tr>
<td>ART 2630</td>
<td>Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 2680</td>
<td>Printmaking I</td>
<td>3</td>
</tr>
<tr>
<td>ART 3800</td>
<td>Low-Fire Ceramics</td>
<td>3</td>
</tr>
<tr>
<td>ART 3810</td>
<td>Ceramic Technologies</td>
<td>3</td>
</tr>
<tr>
<td>ART 4360</td>
<td>Mold Making and Casting</td>
<td>3</td>
</tr>
<tr>
<td>ART 4370</td>
<td>Hand Building Ceramics</td>
<td>3</td>
</tr>
<tr>
<td>ART 3005</td>
<td>Ceramic History Trends and Practices WE</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete 9.0 credits of the following, with no more than 6.0 credits in one course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 334R</td>
<td>Sculpture III (3)</td>
<td></td>
</tr>
<tr>
<td>ART 335R</td>
<td>Ceramics III (3)</td>
<td></td>
</tr>
</tbody>
</table>

Emphasis Elective Requirements:
Two upper-division Art History classes (6 credits)

Complete any ART/ARTH courses not already used (4 credits must be upper division).

Graduation Requirements:
1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a C- in all Art and Design courses.
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Portfolio submission required during senior year.
6. Successful completion of at least one Global/Intercultural course.
Art and Design

Art and Design - Sculpture and Ceramics Emphasis, B.F.A.

Careers

1. VISUAL LITERACY: Demonstrate with proficiency the ability to articulate elements and principles of design. Demonstrate with proficiency the ability to control the given (material) media.
2. PROFESSIONAL EXCELLENCE: Demonstrate with proficiency technical knowledge of studio maintenance and proper use of space and materials. Demonstrate with proficiency the ability to produce a quality sculpture/ceramics portfolio to facilitate admission into graduate schools, to approach galleries, to enter shows, or to establish other means of marketing student’s work.
3. CREATIVE DIVERSITY: Demonstrate with proficiency the exploration of a range of concept development, originality, historical research, and creativity.

Related Careers

• Art, Drama, and Music Teachers, Postsecondary
• Commercial and Industrial Designers
• Graphic Designers
• Set and Exhibit Designers
• Designers, All Other

Art and Design, B.A.

Requirements

Students who elect to earn a bachelor of arts or associate of arts degree are required to complete a foreign language requirement, while those who earn a bachelor of science or associate of science degree have the option to take more electives. All of these degrees allow students to explore a few areas within the department and gain a more well-rounded education in the visual arts.

Total Program Credits: 120

Matriculation Requirements

Portfolio review or completion of A.A., A.S. or A.A.S. degree in Art & Design.

General Education Requirements: 36 Credits

- ENGL 1010 Introduction to Academic Writing CC (3)
- or ENGH 1005 Literacies and Composition Across Contexts CC (5)
- ENGL 2010 Intermediate Academic Writing CC (3)

Complete one of the following: 3

- MAT 1030 Quantitative Reasoning QL (3)
- MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)
- STAT 1040 Introduction to Statistics QL (3)
- STAT 1045 Introduction to Statistics with Algebra QL (5)
- MATH 1050 College Algebra QL (4)
- MATH 1055 College Algebra with Preliminaries QL (5)
- MATH 1090 College Algebra for Business QL (3)

Complete one of the following: 3

- HIST 2700 US History to 1877 AS (3)
- HIST 2710 US History since 1877 AS (3)
- HIST 1700 American Civilization AS (3)
- HIST 1740 US Economic History AS (3)

Complete the following:

- PHIL 2050 Ethics and Values IH (3)
- HLTH 1100 Personal Health and Wellness TE (2)
- or EXSC 1097 Fitness for Life TE (2)

Distribution Courses:

- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution (fulfilled with Foreign Language 202G/2020) 4
- ARTH 2710 Prehistoric Through Gothic Art History FF (3)
- Social/Behavioral Science 3

Discipline Core Requirements: 47 Credits

- ART 1120 2D Design 3
- ART 1130 3D Design 3
- ART 200R Art and Design Lecture Series 2

Complete 9 credits from the following list (please note: when selecting electives be mindful of prerequisite requirements for advanced courses): 9

- ART 1110 Drawing I (3)
- ART 1210 Observational Drawing (3)
- ART 1350 Ceramics I FF (3)
- ART 1400 Graphic Computer Applications (3)
- ART 1420 Graphic Design I (3)
- ART 1650 Watercolor FF (3)
- ART 1750 Intro to Digital Imaging (3)

Complete 3 of the 4 following classes: 3

- ART 4820 Professional Practices for the Visual Arts I WE (1)
- ART 4830 Professional Practices for the Visual Arts II WE (1)
- ART 4840 Professional Presentation for the Visual Arts WE (1)
- ART 4850 Professional Writing for the Visual Arts WE (1)

Complete 24 credits from any ART/ARTH courses not already taken (students must have 40 upper division credit hours to graduate, see Graduation Requirement 1). 24

Elective Requirements: 37 Credits

- One Foreign Language 12

Complete any courses 1000 level or higher (students must have 40 upper division credit hours to graduate, see Graduation Requirement 1). 25

Graduation Requirements:

1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a C- in all Art & Design courses.
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Portfolio Submission.
6. Successful completion of at least one Global/Intercultural course.
7. For the BA degree, completion of 16 credit hours of course work from one language to include the 1010, 1020, 2010, and 202G/2020 levels or transferred equivalents.

Art and Design, B.A.

Careers
1. VISUAL LITERACY: Demonstrate with proficiency the creation of compositions that successfully use the elements of art and principles of design.
2. PROFESSIONAL EXCELLENCE: Demonstrate with proficiency the ability to execute a professional-level body of work (in at least one form of media) in a way that reflects a professional level of aptitude and knowledge of technical and artistic skill sets.
3. CREATIVE DIVERSITY: Demonstrate with proficiency the ability to include individual expression/voice in a given body of work or to communicate and express unique ideas.

Related Careers
- Art, Drama, and Music Teachers, Postsecondary
- Commercial and Industrial Designers
- Graphic Designers
- Set and Exhibit Designers
- Designers, All Other

Art and Design, B.S.

Requirements

Students who elect to earn a bachelor of arts or associate of arts degree are required to complete a foreign language requirement, while those who earn a bachelor of science or associate of science degree have the option to take more electives. All of these degrees allow students to explore a few areas within the department and gain a more well-rounded education in the visual arts.

Total Program Credits: 120

Matriculation Requirements:
Portfolio review or completion of AA, AS, or AAS degree in Art & Design

General Education Requirements: 35 Credits

ENGL 1010 Introduction to Academic Writing CC (3)

or

ENGL 1005 Literacies and Composition Across Contexts CC (5)

ENGL 2010 Intermediate Academic Writing CC (3)

Complete one of the following: (3)

MAT 1030 Quantitative Reasoning QL (3)

MAT 1035 Quantitative Reasoning with Integrated Algebra QL (5)

STAT 1040 Introduction to Statistics QL (3)

Complete 3 of the 4 following classes: (3)

ART 1110 Drawing I (3)

ART 1210 Observational Drawing (3)

ART 1350 Ceramics I FF (3)

ART 1400 Graphic Computer Applications (3)

ART 1420 Graphic Design I (3)

ART 1650 Watercolor FF (3)

ART 1750 Intro to Digital Imaging (3)

Complete 9 credits from the following list (please note: when selecting electives be mindful of prerequisite requirements for advanced courses):

ART 4820 Professional Practices for the Visual Arts I WE (1)

ART 4830 Professional Practices for the Visual Arts II WE (1)

ART 4840 Professional Presentation for the Visual Arts WE (1)

ART 4850 Professional Writing for the Visual Arts WE (1)

Complete 24 credits from any ART/ARTH courses not already taken (see Graduation Requirement 1).

Elective Requirements: 38 Credits
Graduation Requirements:
1. Completion of a minimum of 120 semester credits, with a minimum of 40 of upper division credits.
2. Overall grade point average of 2.0 (C) above with no grade lower than a C-in all Art & Design courses.
3. Residency hours- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Portfolio Submission.
6. Successful completion of at least one Global/Intercultural course.

Art and Design, B.S.

Careers
1. VISUAL LITERACY: Demonstrate with proficiency the creation of compositions that successfully use the elements of art and principles of design.
2. PROFESSIONAL EXCELLENCE: Demonstrate with proficiency the ability to execute a professional-level body of work (in at least one form of media) in a way that reflects a professional level of aptitude and knowledge of technical and artistic skill sets.
3. CREATIVE DIVERSITY: Demonstrate with proficiency the ability to include individual expression/voice in a given body of work or to communicate and express unique ideas.

Related Careers
- Art, Drama, and Music Teachers, Postsecondary
- Commercial and Industrial Designers
- Graphic Designers
- Set and Exhibit Designers
- Designers, All Other

Entertainment Design, B.F.A.

Requirements
A successful career in Entertainment Design requires a limitless imagination, the ability to invent and conceptualize new realities, and an understanding of the traditional and technological tools used to do so. This interdisciplinary degree encompasses concept, character, story, place, and time relevant to the entertainment industry. Students can expect to learn the skills and creative ability required of concept artists in the disciplines of character and story development such as character design, storyboarding, motion sequencing, and art direction. As an Entertainment Designer, you will create realities and experiences that excite minds by combining art and technology to bring extraordinary experiences to life in toys, games, comics, movies, environments, and more.

Total Program Credits: 122

Entertainment Design (Lower Division Core) 33 Credits
- ART 1120 2D Design 3
- ART 1210 Observational Drawing 3
- ART 1220 Perspective Drawing 3
- ART 1400 Graphic Computer Applications 3
- ART 2220 Imagination and Visual Literacy 3
- ART 2240 Illustrative Media and Techniques II 3
- ART 2250 Gestural Drawing 3
- ART 2260 Digital Painting I 3
- ART 2270 Figure Drawing I 3
- ART 2280 3D Modeling 3
- ART 2440 Motion Graphics I 3

Entertainment Design (Upper Division Core) 45 Credits
- ART 3210 Narrative Illustration 3
- ART 3240 Head Drawing 3
- ART 3250 Environment Design 3
- ART 3260 Digital Painting II 3
- ART 3280 3D Texturing and Rendering 3
- ART 3440 Motion Graphics II 3
- ART 361R Figure Drawing II 3
- ART 4250 Character Design 3
- ART 4260 Concept Design 3

Complete one of the following: (NOTE: A higher level MATH course may substitute for this requirement) 3
- MAT 1030 Quantitative Reasoning QL (3)
- MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)

Complete one of the following: 3
- HIST 2700 US History to 1877 AS (3)
- HIST 2710 US History since 1877 AS (3)
- HIST 1700 American Civilization AS (3)
- HIST 1740 US Economic History AS (3)
- POLS 1000 American Heritage SS (3)
- POLS 1100 American National Government AS (3)

Complete the following:
- PHIL 205G Ethics and Values IH GI 3
- HLTH 1100 Personal Health and Wellness TE (2)
or
- EXSC 1097 Fitness for Life TE 2

Distribution Courses:
- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities 3
- Social/Behavioral Science 3
- ARTH 2710 Prehistoric Through Gothic Art History FF 3

BFA Portfolio Review
Art and Design

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 4270</td>
<td>Sequential Illustration</td>
<td>3</td>
</tr>
<tr>
<td>ART 4280</td>
<td>3D Rigging and Animation</td>
<td>3</td>
</tr>
<tr>
<td>ART 4290</td>
<td>3D Sculpting</td>
<td>3</td>
</tr>
<tr>
<td>ART 4440</td>
<td>Motion Graphics Studio</td>
<td>3</td>
</tr>
</tbody>
</table>

Capstone (Repeated over two consecutive semesters)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 499R</td>
<td>BFA Project WE (3)</td>
<td>6</td>
</tr>
</tbody>
</table>

Elective Requirements (Complete any course 1000+) or, Recommended Elective Curriculum:

9 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEA 1513</td>
<td>Stagecraft I (2)</td>
</tr>
<tr>
<td>THEA 1713</td>
<td>Script and Text Analysis I (3)</td>
</tr>
<tr>
<td>THEA 2513</td>
<td>Introduction to Design for Stage and Screen (3)</td>
</tr>
</tbody>
</table>

Digital Cinema, Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGM 1061</td>
<td>Digital Cinema Editing I (3)</td>
</tr>
<tr>
<td>DGM 1510</td>
<td>Film Production Analysis (3)</td>
</tr>
<tr>
<td>DGM 1520</td>
<td>Digital Cinema Production I (3)</td>
</tr>
</tbody>
</table>

Writing for Entertainment Media, Minor

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGM 1510</td>
<td>Film Production Analysis (3)</td>
</tr>
<tr>
<td>DGM 2570</td>
<td>Storytelling for Digital Media I WE (3)</td>
</tr>
<tr>
<td>DGM 450R</td>
<td>Story Editing for Digital Media (3)</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 122 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a C- in all Art and Design courses.
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Portfolio submission required during senior year.
6. Successful completion of at least one Global/Intercultural course.
7. Successful completion of at least two Writing Enriched (WE) courses.

Entertainment Design, B.F.A.

Careers

1. Employ efficient and accurate drawing and painting abilities that convey an understanding of perspective, light, material and color.
2. Apply the use of anatomy, gesture, form, and staging in figure drawing and character design.
3. Apply principles of composition, color theory, and form to concept designs and illustrations as a way to emphasize and dramatize story.
4. Combine traditional and digital tools to create a variety of concept art including creatures, characters, environments, vehicles, costumes, and props in both 2D and 3D.
5. Develop proficient problem-solving skills through the use of research and development in ideation for storyboarding and sequential art.
6. Develop skills in modeling, texturing, lighting and rendering for 3D and 2D animation.

Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Commercial and Industrial Designers
- Graphic Designers
- Set and Exhibit Designers
Aviation Science

Aviation Science

The Aviation Science department is in the Scott M. Smith College of Engineering. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Aviation Science department, visit their website.

Aviation Science department

DEPARTMENT CHAIR
LEICK, Ryan Associate Professor

FACULTY
CHAMBERLAIN, Cory Associate Professor
HOLLISTER, Michael L. Lecturer
LEICK, Ryan Associate Professor
LEY, Stephen Associate Professor
SILCOX, Fiona Assistant Professor
SUTLIFF, Daniel Professional in Residence
TROUTT, Jack Assistant Professor
WILLIAMS, Brice Associate Professor

Course Descriptions
Aviation Science................................................................. 560

Degrees & Programs
Aviation Science, A.A.S.

Requirements
The Applied Associates of Science in Professional Pilot prepares students to enter the workforce as a commercial pilot. Students receive specific training under Federal Aviation Administration (FAA) 14 CFR Part 141 and Restricted Air Transport Pilot (R-ATP) regulations to qualify for specialized employment requirements. Delivery focuses on technical training and applied exercises providing the knowledge and skills required for several licenses and ratings.

Total Program Credits: 63

Matriculation Requirements:
Students seeking admission to the program will be required to meet the following admission requirements.

1. Hold a second class FFA medical certificate from an Aviation Medical Examiner.
2. An overal GPA of at least 2.5
3. Due to limited availability of flight training resources, flight student admission into the on-campus AVSC 100 Ground I - Private and AVCS 1110 Flight I - Private course, when necessary, may require selection through a competitive application process.

General Education Requirements: 18 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 63 or more semester credits.
2. Overall grade point average of 2.0 (C) or above. Aviation courses require a C- or above.
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.

Aviation Science, A.A.S. Careers

1. Demonstrate knowledge of FAA written exam material with score of 80% or above.
2. Students will satisfactory demonstrate knowledge, maneuvers and skills of an instrument rated commercial, multi-engine pilot to FAA standards.
3. Students will manage all available equipment, systems and people in normal and emergency operations while mitigating threats and errors.
4. Students will self-critique ability to gather available data, identify possible courses of action, evaluate risk inherent in each course of action and make appropriate decisions.

5. Students will produce professional quality reports and effectively present the information to an audience using appropriate technology.

Related Careers

- Airline Pilots, Copilots, and Flight Engineers
- Commercial Pilots

Aviation Science, A.S.

Requirements

The A.S. degree is designed to prepare the student with all the ratings necessary to be qualified for entry-level jobs in the aviation field. Obtaining an associate degree helps the graduate prepare for a diversity of job-related responsibilities and prepares students to enter directly into the B.S. degree.

Total Program Credits: 62

General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
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<td>3</td>
</tr>
<tr>
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<td>Literacies and Composition Across Contexts CC (5)</td>
<td></td>
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<tr>
<td>ENGL 2010</td>
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<tr>
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<td>Personal Health and Wellness TE (2)</td>
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Distribution Courses:

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<td>Biology</td>
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<tr>
<td>Physical Science</td>
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Additional Biology or Physical Science $^3$ 3

Humanities Distribution $^4$ 3

Fine Arts Distribution 3

Social/Behavioral Science $^5$ 3

Discipline Core Requirements: 18 Credits

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<tr>
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<td>Survey of Aviation Science</td>
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<tr>
<td>or AVSC 1050</td>
<td>Introduction to Aviation Management (3)</td>
<td></td>
</tr>
<tr>
<td>AVSC 1100</td>
<td>Ground I - Private</td>
<td>3</td>
</tr>
<tr>
<td>AVSC 2070</td>
<td>Communications for Aviation Professionals WE</td>
<td>3</td>
</tr>
<tr>
<td>or MKTG 220G</td>
<td>Written Business Communication Gi WE (3)</td>
<td></td>
</tr>
<tr>
<td>AVSC 2110</td>
<td>Aviation Weather</td>
<td>3</td>
</tr>
<tr>
<td>AVSC 2130</td>
<td>Aviation Safety</td>
<td>3</td>
</tr>
<tr>
<td>AVSC 2150</td>
<td>Air Transportation Management</td>
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Elective Requirements: 9 Credits

<table>
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Graduation Requirements:

1. Completion of a minimum of 62 or more semester credits.
2. Overall grade point average of 2.0 (C) or above. Aviation courses require a C- or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Footnotes

1. If student chooses HIST 2700 and HIST 2710 as the additional hours may be used towards a social science distribution requirement.
2. PHYS 1850 The Physics of Aviation PP recommended
3. METO 1010 Introduction to Meteorology PP recommended
4. COMM 1020 Public Speaking HH recommended
5. PSY 1010 General Psychology SS recommended

Aviation Science, A.S.

Careers

1. Demonstrate knowledge of FAA written exam material with score of 80% or above
2. Students will satisfactory demonstrate knowledge, maneuvers and skills of an instrument rated commercial, multi-engine pilot to FAA standards.
3. Students will manage all available equipment, systems and people in normal and emergency operations while mitigating threats and errors.
4. Students will self-critique ability to gather available data, identify possible courses of action, evaluate risk inherent in each course of action and make appropriate decisions.
5. Students will produce professional quality reports and effectively present the information to an audience using appropriate technology.

Related Careers

- Airline Pilots, Copilots, and Flight Engineers
- Commercial Pilots
Aviation Science, Certificate of Proficiency

Requirements

The Certificate of Proficiency in Aviation Science is available for all UVU students with an aviation particular focus designed to provide high school students an opportunity to obtain a stackable certificate of proficiency with an emphasis in career and technical education while still enrolled in high school. This certificate is available from the University for college students/adults looking for basic entry-level skills leading to further academic advancement.

Total Program Credits: 15

Discipline Core Requirements: 15 Credits

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Graduation Requirements:
1. Overall grade point average of 2.0 (C) or above.
2. Completion of 16 credit hours in subjects included in the course list.
3. All courses must be completed with a grade of C- or better.

Aviation Science, Certificate of Proficiency Careers

1. Investigate aviation/aerospace career opportunities and associated skills required in aviation preparation for aviation employment.
2. Identify aviation applications including aerospace technology and terminology.
3. Explain the aerodynamic principles of flight that affect aircraft operation.
4. Apply knowledge of pilotage, dead reckoning, and radio navigation in conjunction with the aeronautical charts, plotters, flight computers, and flight publications necessary for cross-country flight.

Related Careers
- Airline Pilots, Copilots, and Flight Engineers
- Commercial Pilots

Aerospace Technology Management, B.S.

Requirements

The BS in Aerospace Technology Management from Utah Valley University is designed to prepare graduates for various technical aerospace professional roles across a products life cycle. Skills associated with air and space vehicle sustainability systems and risk management, customer management, project management, aftermarket services, business development, manufacturing and inspection processes, safety management systems, and process improvement will be learned and applied. The program will provide a completion degree for students who possess the Airframe and Powerplant ratings of an FAA issued Aircraft Maintenance Technician Certificate under the rules defined by FAR Part 65 or possess a license as an Aircraft Maintenance Engineer (Cat B1) issued under EASA Part 66 regulations.

Total Program Credits: 123

Matriculation Requirements:
Completion of a Technical Specialty associated with FAA issued Airframe & Powerplant Maintenance Technician Certificate issued under rules of FAR Part 65 OR Completion of an Associates in Science or an Associates of Applied Science Degree from a regionally accredited institution of higher education with a designated technical specialty associated with FAA issued Airframe & Powerplant Maintenance Technician Certificate issued under the rules of FAR Part 147 OR possess a license as an Aircraft Maintenance Engineer (AME) (Cat B1) issued under EASA Part 66 regulations. A total not to exceed 45 credit hours will be awarded for evidence of the possession of the A&P or AME certificate.

General Education Requirements 35 Credits

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<td>HLTH 1100</td>
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<td>POLS 1000</td>
<td>American Heritage SS (3.0)</td>
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<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3.0)</td>
<td></td>
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</table>
Graduation Requirements:

1. Completion of a minimum of 123 semester credits.
2. Overall grade point average of 2.0 (C) or above.
3. No grade lower than a C- in any AVSC or TECH course.
4. Residency hours - Minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. Completion of GE and specified departmental requirements.
6. Successful completion of at least one (1) Global/Intercultural course.

Aerospace Technology Management, B.S.

Program Learning Outcomes

1. Evaluate current market conditions, customer requirements, and aerospace vehicle support requirements, and demonstrate the knowledge, skills, and procedures to successfully design an effective aerospace support organization in a simulated aerospace operations setting.
2. Identify in a teams setting a current issue and propose a viable solution through a formal report and presentation that will be associated with topics involving aerospace vehicles (or component) certification standards, regulatory requirements, maintenance planning, safety management, and training within one of the aerospace sectors.
3. Synthesize acquired knowledge, judgment, and expertise in an operational setting.

Related Careers
- Aerospace Engineering and Operations Technicians
- Aerospace Technology Management, B.S.

Requirements

This degree is designed to develop practical leadership skills for a variety of careers in the aviation industry. Courses are based on real world aviation needs and are developed through ties with industry experts. The curriculum will prepare students with a broad range of knowledge and skills, including airline and airport management, aviation security and safety, marketing, aviation finance, human resources, and many others.

Total Program Credits: 120

Matriculation Requirements:

Students seeking admission to the program will be required to meet the following admissions requirements:

1. Completion of ENGL 1010 or ENGH 1005 and 25 aviation credits with a grade of C+ or higher
2. Overall GPA of at least 2.5

General Education Requirements: 35 Credits

- ENGL 1010 Introduction to Academic Writing CC
- or ENGH 1005 Literacies and Composition Across Contexts CC
- ENGL 2100 Intermediate Academic Writing CC

Complete one of the following: 3

- MAT 1030 Quantitative Reasoning QL
- MAT 1035 Quantitative Reasoning with Integrated Algebra QL
- MATH 1050 College Algebra QL
- MATH 1055 College Algebra with Preliminaries QL
- MATH 1090 College Algebra for Business QL
- STAT 1040 Introduction to Statistics QL
- STAT 1045 Introduction to Statistics with Algebra QL

Complete one of the following: 3
Aviation Science

POLS 1000 American Heritage SS (3)
POLS 1100 American National Government AS (3)
HIST 1700 American Civilization AS (3)
HIST 1740 US Economic History AS (3)
HIST 2700 US History to 1877 AS (3)¹
and
HIST 2710 US History since 1877 AS (3)¹

Complete the following:

PHIL 2050 Ethics and Values IH 3
HLTH 1100 Personal Health and Wellness TE (2)
or
EXSC 1097 Fitness for Life TE 2
Biology (BIOL 1010 recommended) 3
Physical Science² 3
Additional Biology or Physical Science³ 3
Humanities Distribution⁴ 3
Fine Arts Distribution 3
Social/Behavioral Science⁵ 3

Discipline Core Requirements: 85 Credits

AVSC 1010 Survey of Aviation Science 3
or
AVSC 1050 Introduction to Aviation Management (3)
AVSC 1100 Ground I - Private 3
AVSC 2070 Communications for Aviation Professionals WE 3
or
MKTG 220G Written Business Communication GI WE (3)
AVSC 2090 Air Transport Economics 3
or
ECON 2020 Principles of Economics II SS (3)
AVSC 2110 Aviation Weather 3
AVSC 2130 Aviation Safety 3
AVSC 2150 Air Transportation Management 3
AVSC 2180 Managing Technology in Aviation 3
AVSC 2250 Aviation Business Statistics 3
AVSC 2710 Aviation Marketing 3
AVSC 3020 Aviation Insurance and Risk Management 3
AVSC 3030 Air Traffic Control I 3
AVSC 3060 Airline Management 3
AVSC 3090 Airline and Dispatch Operations 3
AVSC 3100 Corporate Aviation Management 3
AVSC 3120 Airport Management 3
AVSC 3150 Principles of Aviation Management 3
AVSC 3320 Aviation Managerial Accounting 3
or
ACC 3000 Financial Managerial and Cost Accounting Concepts (3)
AVSC 4020 Applied Aviation Finance 3
AVSC 410G Global Ethical and Professional Issues in Aviation GI 3

AVSC 4160 Aviation Law WE 3
AVSC 4700 Aviation Professional Seminars 3
AVSC 4710 Aviation Career Preparation 1
AVSC 4900 Strategic Aviation Management Capstone 3

Elective Requirements: 15 Credits
Must complete 15 credits.

Graduation Requirements:

1. Completion of a minimum of 120 or more semester credits, with a minimum of 40 upper division semester credits.
2. Overall grade point average of 2.0 (C) or above. Aviation courses require a C- or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Students may count no more than 8 credit hours of total cooperative work experience (AVSC 281R/AVSC 285R /AVSC 481R/AVSC 485R toward the degree requirement without department approval.
5. Successful completion of at least one Global/Intercultural course.

Footnote:

1- If student chooses HIST 2700 and HIST 2710, the additional hours may be used towards a social science distribution requirement.
2-PHYS 1010 Elementary Physics PP recommended
3-METO 1010 Introduction to Meteorology PP recommended
4-COMM 1020 Public Speaking HH recommended
5-PSY 1010 General Psychology SS recommended

Aviation Management, B.S.

Careers

Program Learning Outcomes

1. Evaluate current market conditions and demonstrate the knowledge, skills, and procedures to successfully manage aerospace operations in a simulated aviation business setting.
2. In a team setting, students will create a viable business plan that includes business overview, market analysis, sales and marketing plan, ownership and management plan, operating and financial plan.
3. Synthesize acquired knowledge, judgment, and expertise in a business setting.

Related Careers

• Transportation, Storage, and Distribution Managers

Professional Pilot, B.S.

Requirements

The Bachelor of Science in Professional Pilot prepares students to enter the work force as a certified flight instructor and commercial, multi-engine rated pilot. Students receive specific training under Federal Aviation Administration (FAA) 14 CFR Part 141 and Restricted Air Transport Pilot (R-ATP) regulations to qualify for specialized employment requirements with a regional airline. Delivery focuses on technical training and applied exercises providing the knowledge and skills required for several licenses and ratings.

Total Program Credits: 120
## Matriculation Requirements:

Students seeking admission to the program will be required to meet the following admission requirements:

1. Hold a second class FAA medical certificate from an FAA designated Medical.
2. An overall GPA of at least 2.5.
3. Due to limited availability of flight training resources, flight student admission into the on-campus AVSC 1110 Flight I - Private Pilot course, when necessary, may require selection through a competitive point based application.

## General Education Requirements:

**35 Credits**

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<td>or</td>
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## Distribution Courses:

- Biology: 3 credits
- Physical Science: 3 credits
- Additional Biology or Physical Science: 3 credits
- Humanities Distribution: 3 credits
- Fine Arts Distribution: 3 credits
- Social/Behavioral Science: 3 credits

## Discipline Core Requirements:

- AVSC 1010 Survey of Aviation Science: 3 credits
- AVSC 1100 Ground I - Private: 3 credits
- AVSC 1110 Flight I - Private: 3 credits

**68 Credits**

### Graduation Requirements:

1. Completion of a minimum of 120 or more semester credits, with a minimum of 40 upper division semester credits.
2. Overall grade point average of 2.0 (C) or above. Aviation courses require a C- or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. Students in the Professional Pilot degree should obtain an FAA Class I or II Medical Certificate prior to beginning flight training.
6. Students may count no more than 8 credit hours of total cooperative work experience (AVSC 281R/285R/481R/485R) toward the degree requirements without department approval.
7. Successful completion of at least one Global/Intercultural course.
8. Successful completion of at least two Writing Enriched (WE) courses.

### Footnote:

1. If student chooses HIST 2700 and HIST 2710, the additional hours may be used towards a social science distribution requirement.
2. METO 1010 recommended
3. COMM 1020 recommended
4. PSY 1010 recommended
Professional Pilot, B.S.

Careers

1. Students will satisfactorily demonstrate knowledge, maneuvers and skills of an instrument rated commercial, multi-engine pilot to FAA standards.
2. Students will manage all available equipment, systems and people in normal and emergency operations while mitigating threats and errors.
3. Students will self-critique their ability to gather available data, identify possible courses of action, evaluate risk inherent in each course of action and make appropriate decisions.
4. Students will produce professional quality reports and effectively present the information to an audience using appropriate technology.
5. Students will demonstrate self-directed learning to complete a professional industry certification, training course or an approved internship program.

Related Careers

- Airline Pilots, Copilots, and Flight Engineers
- Commercial Pilots
The Behavioral Science department is in the College of Humanities and Social Sciences. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Behavioral Science department, visit their website.

Behavioral Science department

CLINICAL DIRECTOR
PETERSON, Colleen Assistant Professor

FACULTY
ANDELIN, Lane B. Lecturer
ANDERSON, Christopher D Assistant Professor
AROCHO, Rachel Assistant Professor
BAILEY, Russell Associate Professor
BODEN, Jeremy Associate Professor
BRETON, Brett Assistant Professor
BROOKS, Malisa Assistant Professor
CHAKRAVARTY, Debjani Associate Professor
CHOU, Grace Professor
COTTLE, Nathan Professor
DRAPER, Matthew Professor
DULIN, John Assistant Professor
EGGERTSEN, Lars Associate Professor
FAWCETT, Elizabeth Assistant Professor
GULL, Bethany Lecturer
HAMMOND, Ronald J. Professor
HASLAM, Darryl R. Assistant Professor
HOPKIN, Cameron Lecturer
HUGHES, Anthony Lecturer
HYDO, Mykenzie Assistant Professor
HYDO, Richard J. Lecturer
JOHN, Cameron R. Associate Professor
JORGENSEN, Claudia Associate Professor
KNOWLTON, David Clark Professor
KOPP, Kristopher Assistant Professor
LAMBERT, Kristin Assistant Professor
LARCHE-TAUZIN, Aurelie Lecturer
LOWE, Paige Assistant Professor
MISBACH, Alan R. Associate Professor
NELSON, Julie Assistant Professor
NIELSON, Elijah K. Assistant Professor
NOEL, Natalie Lecturer
OLDROYD, Kristina Assistant Professor
OVEROYE, Acacia Assistant Professor
PANOS, Angelea Assistant Professor
PETERSON, Colleen Assistant Professor
PETERSON, Katelyn Lecturer
POSTLER, Kaicee Assistant Professor
POULSON, Barton Associate Professor
SCHLOSNAGLE, Leo Assistant Professor
SHUBERT, Jennifer Assistant Professor
SIMON, Alexander Professor
SPENCER, Todd A. Assistant Professor
TAYLOR, James Assistant Professor
TODD, Haley Lecturer
TOLMAN, Anton Professor
WENDT, Douglas Lecturer
YANG, Quingling Lecturer
YIN, Yingxian Lecturer
Course Descriptions

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Degrees & Programs

Advanced Substance Use Disorder Counseling, Certificate of Proficiency

Requirements
The UVU Behavioral Science Department offers classes that fulfill the social science distribution requirements for graduation, the Behavioral Science pre-major for the associate degree, the Behavioral Science major for the bachelor degree (with an emphasis in Anthropology, Family Studies, Psychology, or Sociology, a Bachelor of Social Work, and a Certificate of Proficiency in Substance Use Disorder Counseling (SUDC).

Total Program Credits: 32

Matriculation Requirements: 9 Credits

Students must apply and be admitted to the UVU SUDC program. The following four courses must be completed with a C- grade or higher prior to starting the SUDC program. Completion of these courses, as well as University Advanced Standing, must be verified on the application for admission. For additional admission information for this program please visit www.uvu.edu/besc/sudc.html.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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</tr>
<tr>
<td>PSY 1010</td>
<td>General Psychology SS</td>
<td>3</td>
</tr>
<tr>
<td>PSY 1100</td>
<td>Human Development Life Span SS</td>
<td>3</td>
</tr>
<tr>
<td>PSY 2300</td>
<td>Abnormal Psychology</td>
<td>3</td>
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Discipline Core Requirements: 23 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SUDC 4710</td>
<td>Introduction to Professional Development</td>
<td>2</td>
</tr>
<tr>
<td>SUDC 4300</td>
<td>Introduction to Substance Use Disorder Counseling</td>
<td>3</td>
</tr>
<tr>
<td>SUDC 3470</td>
<td>Dynamics of Addiction</td>
<td>3</td>
</tr>
<tr>
<td>SUDC 3430</td>
<td>Psychopharmacology for the Substance Use Disorder Counseling</td>
<td>3</td>
</tr>
<tr>
<td>SUDC 4400</td>
<td>Advanced Substance Use Disorder Counseling</td>
<td>3</td>
</tr>
<tr>
<td>SUDC 4720</td>
<td>Advanced Professional Development</td>
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<tr>
<td>SUDC 481R</td>
<td>Internship</td>
<td>6</td>
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Graduation Requirements:
1. Completion of a minimum of 32 semester credits.
2. Overall grade point average of a 2.0 (C) or above. All courses must be passed with a C- grade or higher in order for students to receive their Certificate of Proficiency from this program.
3. Upon completion of the UVU SUDC Certificate of Proficiency program, students will work with the Utah Division of Occupational and Professional Licensing (DOPL) in regards to meeting the additional licensing requirements and obtaining their SUDC or ASUDC license(s).
4. Residency hours -- minimum of 8 credit hours through course attendance at UVU.

Advanced Substance Use Disorder Counseling, Certificate of Proficiency

Careers

1. Students will be able to identify behaviors and problems related to substance use.
2. Students will be able to develop personalized recovery programs that establish healthy behaviors and coping strategies for clients.

Related Careers
- Mental Health Counselors

Interdisciplinary Gerontology, Certificate of Proficiency

Requirements
The certificate will be housed in the Department of Behavioral Science yet is an interdisciplinary (Public and Community Health, Nursing, and Behavioral Science: Psychology, Sociology, Social Work, and Family Studies) undergraduate gerontology certificate that allows students to build a unique set of credentials they compose from a menu of existing UVU courses that meet the guidelines set forth by the Association for Gerontology in Higher Education (AGHE).

Total Program Credits: 18

Discipline Core Requirements: 9 Credits

Complete 9 credits from this list of core classes:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSY 1100</td>
<td>Human Development Life Span SS</td>
<td>3</td>
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<tr>
<td>FAMS 1500</td>
<td>Human Development Life Span</td>
<td>3</td>
</tr>
<tr>
<td>SOC 375G</td>
<td>Sociology of Aging GI</td>
<td>3</td>
</tr>
<tr>
<td>SW 355G</td>
<td>Thanatology--Death and Dying GI</td>
<td>3</td>
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</table>

Elective Requirements: 9 Credits

Complete 6 credits from this list of core classes:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAMS 3850</td>
<td>Adult Development and Aging</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 4100</td>
<td>Physiology of Aging (3)</td>
<td>3</td>
</tr>
<tr>
<td>FAMS 2800</td>
<td>Teaching Human Sexuality (3)</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 2800</td>
<td>Human Sexuality SS (3)</td>
<td>3</td>
</tr>
<tr>
<td>COM 3410</td>
<td>Fundamentals of Mediation and Negotiation</td>
<td>3</td>
</tr>
<tr>
<td>FAMS 4300</td>
<td>Family Dispute Resolution (3)</td>
<td>3</td>
</tr>
<tr>
<td>FAMS 4500</td>
<td>Family Life Education Methodology WE (3)</td>
<td>3</td>
</tr>
<tr>
<td>FAMS 4660</td>
<td>Family Financial and Resource Management (3)</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 3240</td>
<td>Womens Health Issues (3)</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 350G</td>
<td>International Health GI (3)</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 3300</td>
<td>Health Promotion for Older Adults (3)</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 3400</td>
<td>Human Diseases (3)</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 3800</td>
<td>Epidemiology (3)</td>
<td>3</td>
</tr>
</tbody>
</table>
NURS 2325  Nursing Practice Simulation and Skills Lab I (2)
or NURS 2415  Nursing Care of Adults with Common Health Needs Clinical (2)
or NURS 3335  Nursing Care of Individuals with Complex Health Needs Clinical (2)
or NURS 3405  Patient Care Coordination and Management Preceptorship (2)
or NURS 4325  Nursing in the Community Clinical (1)

NURS 2420  Nursing of the Aging Population (2)
NURS 4230  Palliative Care in Nursing (3)
NUTR 2020  Nutrition Through the Life Cycle BB (3)
PSY 3220  Adult Development and Aging WE (3)
PSY 2300  Abnormal Psychology (3)
PSY 3420  Cognitive Psychology WE (3)
SW 1010  Introduction to Social Work (3)
SW 2100  Human Behavior and the Social Environment I (3)
SW 3400  Human Behavior and the Social Environment II (3)

Complete any 3 credits from AGHE Competency III (part 11) Internship/Research Courses:
- BESC 481R  Senior Internship (1-8)
- EXSC 481R  Internship in Exercise Science (1-8)
- FAMS 481R  Community Practicum (1-8)
- HLTH 482R  Health Internship (1-8)
- NURS 4240  Promoting Active Senior Lifestyles (2)
- NURS 481R  Internship in Nursing (1-3)
- NURS 489R  Undergraduate Research in Nursing (1-4)
- NURS 490R  Special Topics in Nursing (1-4) ¹²
- NURS 495R  Independent Study in Nursing (1-3)
- PSY 482R  Internship Seminar (1)
- SW 481R  Field Placement (1-8)

Graduation Requirements:
1. Completion of a minimum of 18 semester credits.
2. Overall GPA of 2.0 or above upon graduation.
3. Residency hours -- minimum of 5 credit hours through course attendance at UVU.

Footnotes:
1-If course not already taken.
2-Must have departmental approval as course matter rotates.

Interdisciplinary Gerontology, Certificate of Proficiency

Careers
1. Identify simple and complex issues that the gerontology population face.
2. Develop plans, protocols, and strategies to address issues within the gerontology population.

3. Implement plans and strategies while working with the gerontology population.

Related Careers
- Medical Scientists, Except Epidemiologists
- Social Scientists and Related Workers, All Other

Substance Use Disorder Counseling, Certificate of Proficiency

Requirements
The UVU Behavioral Science Department offers classes that fulfill the social science distribution requirements for graduation, the Behavioral Science pre-major for the associate degree, the Behavioral Science major for the bachelor degree (with an emphasis in Anthropology, Family Studies, Psychology, or Sociology, a Bachelor of Social Work, and a Certificate of Proficiency in Substance Use Disorder Counseling (SUDC).

Total Program Credits: 26

Matriculation Requirements: 12 Credits
Students must apply and be admitted to the UVU SUDC program. The following four courses must be completed with a C- grade or higher prior to starting the SUDC program.

- ENGL 2010  Intermediate Academic Writing CC 3
- PSY 1010  General Psychology SS 3
- PSY 1100  Human Development Life Span SS 3
- PSY 2300  Abnormal Psychology 3

Completion of these courses, as well as University Advanced Standing, must be verified on the application for admission. For additional admission information for this program please visit www.uvu.edu/besc/sudc.html.

Discipline Core Requirements: 14 Credits

- SUDC 4710  Introduction to Professional Development 2
- SUDC 4300  Introduction to Substance Use Disorder Counseling 3
- SUDC 3470  Dynamics of Addiction 3
- SUDC 3430  Psychopharmacology for the Substance Use Disorder Counseling Field 3
- SUDC 481R  Internship (1-8) 3

Graduation Requirements:
1. Completion of a minimum of 26 semester credits.
2. Overall grade point average of 2.0 (C) or above. All courses must be passed with a C- grade or higher in order for students to receive their certificate of completion from this program.
3. Upon completion of the UVU SUDC Certificate of Proficiency program, students will work with the Utah Division of Occupational and Professional Licensing (DOPL) in regards to meeting additional licensing requirements and obtaining their SUDC or ASUDC license(s).
4. Residency hours -- Minimum of 6 credit hours through course attendance at UVU.
Behavioral Science

Substance Use Disorder Counseling, Certificate of Proficiency

CAREERS

1. Students will be able to identify behaviors and problems related to substance use.
2. Students will be able to develop personalized recovery programs for their clients that establish healthy behaviors and coping strategies and they will do so in strict adherence to professional ethics.

Related Careers

• Mental Health Counselors

Anthropology, Minor

Requirements

The BA/BS/Minor will give students the opportunity to earn a full major/minor in the field of anthropology. Students who obtain this degree will a) develop anthropological knowledge, enabling them to analyze trends in culture and society, b) methodological competence, learning to apply anthropological methods for learning about cultural/ideological differences and navigating them in daily life, and c) essential skills, written and spoken communication, analytic reading and writing, building rapport with people from different backgrounds. The Minor in Anthropology will allow students pursuing other majors to earn a credential that suggests critical thinking skills, writing ability, and cultural sensitivity.

Total Program Credits: 18

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>6 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 101G Social Cultural Anthropology SS GI</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 2880 Introduction to Theory and Ethnography WE</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements: 12 Credits

Any anthropology course numbered 3000 or higher 12

Cognitive Neuroscience, Minor

Requirements

The Minor in Cognitive Neuroscience is for students who desire a career in the cognitive neuroscience areas within psychology, including becoming a human factors consultant, a clinical neuropsychologist, a neuroscience research technician, or director of memory care for individuals with dementia. The curriculum will expose students to understand the biology and chemistry that underlie nervous system functioning and human behavior as well as the relationship between these biological bases and cognition.

Total Program Credits: 19

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admitted to a bachelor degree program at UVU.</td>
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</table>

Core Requirements: 20 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>3</th>
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<tbody>
<tr>
<td>PSY 1010 General Psychology SS</td>
<td></td>
</tr>
<tr>
<td>PSY 2710 Introduction to Brain and Behavior SS</td>
<td></td>
</tr>
<tr>
<td>PSY 3420 Cognitive Psychology WE</td>
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</table>

Choose one

<table>
<thead>
<tr>
<th>Course</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 3450 Behavioral Neuroscience</td>
<td></td>
</tr>
<tr>
<td>PSY 3490 Sensation and Perception WE</td>
<td></td>
</tr>
</tbody>
</table>

Electives: 6 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>PSY 3450 Behavioral Neuroscience (if not already taken as a requirement above)</td>
<td></td>
</tr>
<tr>
<td>PSY 3490 Sensation and Perception (if not already taken as a requirement above)</td>
<td></td>
</tr>
<tr>
<td>PSY 3425 Cognitive Psychology Lab</td>
<td></td>
</tr>
<tr>
<td>PSY 3430 Psychopharmacology WE</td>
<td></td>
</tr>
<tr>
<td>PSY 3480 Principles of Learning</td>
<td></td>
</tr>
</tbody>
</table>

Related Careers

• Natural Sciences Managers
• Postsecondary Teachers, All Other

Family Science, Minor

Requirements

This minor provides individuals insight into relationship and group dynamics. This include important relationship skills, such as speaking, listening, and other communication skills that could be applied to family and professional settings. Content in the minor may also include important research findings and evidence-based curricula listed on the National Registry of Evidenced-based Programs and Practices (NREPP) on the SAMHSA website.

Total Program Credits: 18

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admitted to a bachelor degree program at UVU.</td>
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Core Requirements: 20 Credits

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>FAMS 240G Contemporary Family Relations GI</td>
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</tr>
<tr>
<td>PSY 1010 General Psychology SS</td>
<td></td>
</tr>
<tr>
<td>PSY 1150 Introduction to Brain and Behavior SS</td>
<td></td>
</tr>
<tr>
<td>PSY 1500 Cognitive Psychology WE</td>
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</tbody>
</table>

Complete 15 credits from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAMS 240G Contemporary Family Relations GI</td>
<td></td>
</tr>
<tr>
<td>FAMS 1150 Marriage and Relationship Skills SS (3.0)</td>
<td></td>
</tr>
<tr>
<td>FAMS 1500 Human Development Life Span (3.0)</td>
<td></td>
</tr>
</tbody>
</table>
FAMS 3250 Applied Parenting (3.0)
FAMS 3800 Early Development in Families (3.0)
FAMS 3850 Adult Development and Aging (3.0)
FAMS 4660 Family Financial and Resource Management (3.0)
FAMS 4670 Family Dynamics and Systems (3.0)

Graduation Requirements:
1. All course work taken to meet Behavioral Science requirements must be completed with a grade of C- or better.

Psychology, Minor

Requirements
The Minor in Psychology is designed for students who desire a full bachelor’s degree in psychology. The degree will prepare students for careers and further education in Utah, the Mountain West, and nationwide by (a) creating a curriculum built around the five pillars of psychology described by the American Psychological Association (APA); (b) emphasizing skills desired by employers (e.g., written communication, critical thinking, working in teams); and (c) providing engaged learning experiences (e.g., service-learning, internship, capstone) about current psychological topics.

Total Program Credits: 18

Discipline Core Requirements: 18 Credits
- PSY 1010 General Psychology SS (3)
- PSY 2710 Introduction to Brain and Behavior SS (3)
- PSY 2300 Abnormal Psychology (3)
- PSY 3420 Cognitive Psychology WE (3)
- PSY 305G Social Psychology GI (3)

Development Requirement. Complete ONE of the following: 3
- PSY 3200 Infancy and Childhood Development WE (3)
- PSY 3210 Adolescent Development WE (3)
- PSY 3220 Adult Development and Aging WE (3)

Graduation Requirements:
1. All course work taken to meet Behavioral Science requirements must be completed with a grade of C- or better.

Psychology, Minor

Careers
1. Students will critically analyze quantitative data in order to draw empirically supported conclusions about human behaviors.
2. Students will write in a professional manner, defined as a mastery of the mechanics of basic writing, the conventions of professional writing (e.g., conforming to a publication style), and the ability to produce a coherent argument.

Related Careers
- Managers, All Other
- Clinical, Counseling, and School Psychologists
- Industrial-Organizational Psychologists
- Psychologists, All Other
- Psychology Teachers, Postsecondary

Sociology, Minor

Requirements
Sociology is the scientific study of society which includes studying individuals in their primary and secondary groups and larger social institutions. It examines the social context of individual and collective lives. Sociology is a relatively young discipline that describes, explains, and predicts social interactions and institutions using theoretical as well as social scientific methods of inquiry. According to the American Sociological Association, the essential concepts that students will learn within sociology are social construction of everyday life and sociological imagination; social structure; socialization; social stratification, and social change. Students will also gain competencies in critical and theoretical thinking and application of social scientific methodology towards rigorous data analysis.

Total Program Credits: 18

Discipline Core Requirements: 18 Credits
- Complete 2 required classes (6)
- SOC 1010 Introduction to Sociology SS (3)
- SOC 1020 Modern Social Problems (3)
- Complete any 4 of the following classes (with at least 3 upper division) (12)
  - SOC 1200 Sociology of the Family SS (3)
  - SOC 2370 Sociology of Gender (3)
  - SOC 263G Race and Minority Relations GI (3)
  - PSY 3110 Statistics for the Behavioral Sciences (4)
  - BESC 3020 Research Methods for the Behavioral Sciences (3)
  - SOC 3400 Sociology of Religion (3)
  - SOC 3460 Political Sociology (3)
  - SOC 3520 Environmental Sociology (3)
  - SOC 3690 Internet and Society (3)
  - SOC 375G Sociology of Aging GI (3)
  - SOC 3800 Animals and Society (3)
  - SOC 4000 Classical Social Theory (3)
  - SOC 4100 Contemporary Social Theory WE (3)
  - SOC 4020 Survey Research Design (3)
  - SOC 4400 Social Change (3)
  - SOC 475R Current Topics in Sociology (1)
  - SOC 490R Independent Studies (1)

Graduation Requirements:
All course work taken to meet Behavioral Science requirements must be completed with a grade of C- or better.

Sociology, Minor

Careers
1. Apply Sociological Theories to Understand Social Phenomena.
3. Apply Scientific Principles to Understand the Social World.
4. Evaluate the Quality of Social Scientific Methods and Data.
Anthropology, B.A.

Requirements

The BA/BS/Minor will give students the opportunity to earn a full major/ minor in the field of anthropology. Students who obtain this degree will a) develop anthropological knowledge, enabling them to analyze trends in culture and society, b) methodological competence, learning to apply anthropological methods for learning about cultural/ideological differences and navigating them in daily life, and c) essential skills, written and spoken communication, analytic reading and writing, building rapport with people from different backgrounds. The Minor in Anthropology will allow students pursuing other majors to earn a credential that suggests critical thinking skills, writing ability, and cultural sensitivity.

Total Program Credits: 120

General Education Requirements: 36 Credits

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
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<tr>
<td>or ENGH 1005</td>
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<td>ENGL 2010</td>
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<tr>
<td>Complete one of the following:</td>
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<tr>
<td>MAT 1030</td>
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<tr>
<td>MAT 1035</td>
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<tr>
<td>STAT 1040</td>
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<tr>
<td>STAT 1045</td>
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<td>MATH 1055</td>
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<td>MATH 1090</td>
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<td>Complete one of the following:</td>
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<tr>
<td>HIST 2700</td>
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<tr>
<td>HIST 2710</td>
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<td>HIST 1700</td>
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<td>POLS 1100</td>
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<td>Complete the following:</td>
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<td>PHIL 2050</td>
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<td>HLTH 1100</td>
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<td>or EXSC 1097</td>
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<td>Distribution Courses:</td>
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<tr>
<td>Biology</td>
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<tr>
<td>Physical Science</td>
<td>3</td>
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<tr>
<td>ANTH 101G</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 1020</td>
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</table>

Elective Requirements: 18 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ANTH 103G</td>
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<tr>
<td>ANTH 2880</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 3000</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 3850</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 4120</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 4130</td>
<td>3</td>
</tr>
<tr>
<td>Anthropology Electives: Any anthropology elective numbered 3000 or higher</td>
<td>18</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 120 credits, 40 of which must be 3000 level or higher.
2. Minimum UVU GPA of 2.0 upon graduation.
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Successful completion of at least one Global/Intercultural course.

Note: Please see department advisor for an explanation of all program requirements, a list of recommended classes, and for assistance with creating an academic plan for graduation.

Note: If a student has completed an associate degree through another institution, the required general education courses may be waived.

Anthropology, B.A. Careers

1. Students will master anthropological theory and gain the capacity to use these theories to analyze empirical findings of the field.
2. Students learn to apply methods for learning about social processes and cultural/ideological differences
3. Students will learn to produce and effectively communicate their own arguments and studies on society, culture, and history. These arguments will draw on professional literature and data, both gathered by others and by themselves.

Related Careers

- Managers, All Other
- Anthropologists and Archeologists
- Anthropology and Archeology Teachers, Postsecondary

Anthropology, B.S.

Requirements

The BA/BS/Minor will give students the opportunity to earn a full major/ minor in the field of anthropology. Students who obtain this degree will a) develop anthropological knowledge, enabling them to analyze trends in culture and society, b) methodological competence, learning to apply anthropological methods for learning about cultural/ideological differences and navigating them in daily life, and c) essential skills, written and spoken communication, analytic reading and writing,
building rapport with people from different backgrounds. The Minor in Anthropology will allow students pursuing other majors to earn a credential that suggests critical thinking skills, writing ability, and cultural sensitivity.

Total Program Credits: 120

| General Education Requirements: | 35 Credits |
| ENGL 1010 Introduction to Academic Writing CC | 3 |
| or ENGH 1005 Literacies and Composition Across Contexts CC (5) | |
| ENGL 2010 Intermediate Academic Writing CC | 3 |
| Complete one of the following: | |
| MAT 1030 Quantitative Reasoning QL (3) | |
| MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6) | |
| STAT 1040 Introduction to Statistics QL (3) | |
| STAT 1045 Introduction to Statistics with Algebra QL (5) | |
| MATH 1050 College Algebra QL (4.0) | |
| MATH 1055 College Algebra with Preliminaries QL (5) | |
| MATH 1090 College Algebra for Business QL (3) | |
| Complete one of the following: | 3 |
| HIST 2700 US History to 1877 AS (3) | |
| and HIST 2710 US History since 1877 AS (3) | |
| HIST 1700 American Civilization AS (3) | |
| HIST 1740 US Economic History AS (3) | |
| POLS 1000 American Heritage SS (3) | |
| POLS 1100 American National Government AS (3) | |
| Complete the following: | |
| PHIL 2050 Ethics and Values IH | 3 |
| HLTH 1100 Personal Health and Wellness TE | 2 |
| or EXSC 1097 Fitness for Life TE (2) | |

Distribution Courses:

| Biology | 3 |
| Physical Science | 3 |
| ANTH 101G Social/Cultural Anthropology SS GI | 3 |
| ANTH 1020 Biological Anthropology BB | 3 |
| Humanities Distribution | 3 |
| Fine Arts Distribution | 3 |

Discipline Core Requirements: 36 Credits

| ANTH 103G World Prehistory SS GI | 3 |
| ANTH 2880 Introduction to Theory and Ethnography WE | 3 |
| ANTH 3000 Language and Culture LH | 3 |
| ANTH 3850 Ethnographic Methods WE | 3 |
| ANTH 4120 History of Anthropological Thought | 3 |
| ANTH 4130 Contemporary Theory and Debates | 3 |
| Anthropology Electives: Any anthropology elective numbered 3000 or higher | 18 |

Elective Requirements: 49 Credits

| Any course numbered 3000 or higher | 10 |
| Any course numbered 1000 or higher | 39 |

Graduation Requirements:

1. Completion of a minimum of 120 credits, 40 of which must be 3000 level or higher.
2. Minimum UVU GPA of 2.0 upon graduation.
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Successful completion of at least one Global/Intercultural course.

Note: Please see department advisor for an explanation of all program requirements, a list of recommended classes, and for assistance with creating an academic plan for graduation.

Note: If a student has completed an associate degree through another institution, the required general education courses may be waived.

Anthropology, B.S.

Careers

1. Students will master anthropological theory and gain the capacity to use these theories to analyze empirical findings of the field.
2. Students learn to apply methods for learning about social processes and cultural/ideological differences.
3. Students will learn to produce and effectively communicate their own arguments and studies on society, culture, and history. These arguments will draw on professional literature and data, both gathered by others and by themselves.

Related Careers

- Managers, All Other
- Anthropologists and Archeologists
- Anthropology and Archeology Teachers, Postsecondary

Clinical Mental Health Counseling, M.S.

Requirements

The Master in Clinical Mental Health Counseling (CMHC) prepares individuals to provide counseling services, mental health evaluations, and referrals to ameliorate and prevent cognitive and emotional crises as well as personal and interpersonal problems. Instruction will include coursework on individual and group counseling, psychotherapy theory and practice, human development, psychological assessment, psychopathology and diagnostics, professional standards and ethics as well as the governing laws and regulations of the field. Successful graduates will be eligible for employment and licensure as a Clinical Mental Health Counselor in the state of Utah.

Total Program Credits: 61

Matriculation Requirements:

1. Bachelor’s degree from a regionally accredited institution of higher education (with official transcripts from all institutions attended). The degree can be in any discipline, provided student meets the expected GPA and prerequisite coursework.
2. GPA Requirements: The minimum cumulative GPA is 3.4 on a 4.0 scale.
3. Prerequisite Coursework: General or Introductory Psychology, Abnormal Psychology, Intro to Counseling (or equivalent), Research Methods, Statistics
4. Complete the UVU Graduate School Application.
Graduation Requirements:

1. A minimum cumulative GPA of 3.0 must be maintained within the program.
2. A grade of ‘B’ or higher required in all courses.
3. Completion of a minimum of 61 semester credits.
4. 700 clinical hours are required for completion.
5. Residency hours: Minimum of 42 graduate credit hours completed at UVU in the CMHC program.

Clinical Mental Health Counseling, M.S.

Careers

1. Individual Therapy: Students will engage in critical thinking and demonstrate a heightened self-awareness in the counseling role. Students will also demonstrate skills necessary to be an effective counselor while applying a theoretical approach.
2. Ethical Practice: Students will understand counselor professional identity and demonstrate skill in applying ethical and legal considerations in professional counseling.
3. Clinical Assessment; Treatment Planning: Students will demonstrate the knowledge and ability to diagnose and design treatment plans for a broad range of mental health issues. Students will also be able to select and interpret assessment measures (i.e., academic/educational, career, personality, diagnostic, and developmental)
4. Professional Development: Students will understand counselor professional identity and demonstrate skill in applying ethical and legal considerations in professional counseling.
5. Research and Theory: Students will be able to critically evaluate research in a manner that informs counseling practice.

Related Careers

- Mental Health Counselors

Family Science, B.A.

Requirements

The Family Science program closely aligns with the requirements of the National Council on Family Relations (NCFR). [NCFR is the premier professional association in the family science field, and these standards require that students gain knowledge and expertise in ten key areas] and is an approved program for the Certified Family Life Educator (CFLE).

Total Program Credits: 120

General Education Requirements: 36 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5.0)</td>
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<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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Complete one of the following:

<table>
<thead>
<tr>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3.0)</td>
<td>3</td>
</tr>
<tr>
<td>or MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6.0) (recommended)</td>
<td>3</td>
</tr>
<tr>
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<td>MATH 1090</td>
<td>College Algebra for Business QL (3.0)</td>
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Complete one of the following:

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3.0)</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3.0)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3.0)</td>
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</tr>
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<td>US Economic History AS (3.0)</td>
<td>3</td>
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<td>3</td>
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<td>and HIST 2710</td>
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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
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</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2.0)</td>
<td>2</td>
</tr>
</tbody>
</table>
Behavioral Science

Distribution Courses:
- Biology 3
- Physical Science 3
- Third Science - Additional Biology or Physical Science 3
- Humanities (Fulfilled with Foreign Language 2020/202G course) 4
- Fine Arts 3
- Social/Behavioral Science 3

Discipline Core Requirements: 36 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAMS 1150</td>
<td>Marriage and Relationship Skills</td>
<td>3</td>
</tr>
<tr>
<td>FAMS 1500</td>
<td>Human Development Life Span</td>
<td>3</td>
</tr>
<tr>
<td>FAMS 240G</td>
<td>Contemporary Family Relations GI</td>
<td>3</td>
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<tr>
<td>FAMS 2705</td>
<td>Ethics for Family Interventions WE</td>
<td>3</td>
</tr>
<tr>
<td>FAMS 2800</td>
<td>Teaching Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>FAMS 3000</td>
<td>Social Work Practice I</td>
<td>3</td>
</tr>
<tr>
<td>FAMS 3250</td>
<td>Applied Parenting</td>
<td>3</td>
</tr>
<tr>
<td>FAMS 4400</td>
<td>Family Policy</td>
<td>3</td>
</tr>
<tr>
<td>FAMS 4500</td>
<td>Family Life Education Methodology WE</td>
<td>3</td>
</tr>
<tr>
<td>FAMS 4660</td>
<td>Family Financial and Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>FAMS 4670</td>
<td>Family Dynamics and Systems</td>
<td>3</td>
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Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>FAMS 481R</td>
<td>Community Practicum (3)*</td>
<td></td>
</tr>
<tr>
<td>FAMS 482R</td>
<td>Stronger Families Practicum (3)*</td>
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</tr>
<tr>
<td>FAMS 483R</td>
<td>Research Assistant Independent Study (3)*</td>
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</table>

Elective Requirements: 48 Credits

Complete 24 hours of electives (19 of which must be upper division). Students should select courses that complement Family Science or that meet their personal goals. 24

Complete 12 credits in the same foreign language, includes ASL 12

Any course numbered 1000 or higher 12

*Students must earn a B- or better for graduation requirements

Graduation Requirements:
1. Completion of a minimum of 120 credits, 40 of which must be 3000 level or higher.
2. Minimum overall UVU GPA of 2.0 upon graduation.
3. Minimum 2.5 program GPA upon graduation.
4. Residency hours – minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. All major course work taken to meet Behavioral Science requirements must be completed with a grade of C- or better.
6. For the BA degree, completion of 16 credit hours of course work from one language to include the 1010, 1020, 2010, 202G/2020 levels or transferred equivalents.
7. Successful completion of at least one Global/Intercultural course.

Note: Please see department advisor for explanation of all program requirements, a list of recommended classes, and for assistance with creating an academic plan for graduation.

Note: If a student has completed an associate degree through another institution, the required general education courses may be waived.

Note: Students would need to pass ENGL 1010 Introduction to Academic Writing or ENGH 1005 Literacies and Composition Across Contexts and ENGL 2010 Intermediate Writing/Academic Writing and Research with a C+ or higher for the Family Science degree courses.

Family Science, B.A.

Careers

1. Upon successful completion, students will be able to create educational interventions for individuals and families.
2. Upon successful completion, students will be able to demonstrate knowledge and skill related to the ten areas outlined for Certified Family Life Educators by the National Council on Family Relations.
3. Upon successful completion, students will apply best practices for communication and conflict management in interpersonal relationships and family systems.
4. Upon successful completion, students will demonstrate the ability to work with diverse populations and underserved communities.

Related Careers
- Farm and Home Management Advisors

Family Science, B.S.

Requirements

The Family Science program closely aligns with the requirements of the National Council on Family Relations (NCFR). [NCFR is the premier professional association in the family science field, and these standards require that students gain knowledge and expertise in ten key areas] and is an approved program for the Certified Family Life Educator (CFLE).

Total Program Credits: 120

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<td>ENGL 2010 Intermediate Academic Writing CC</td>
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Graduation Requirements:
1. Completion of a minimum of 120 credits, 40 of which must be 3000 level or higher.

2. Minimum overall UVU GPA of 2.0 upon graduation.
3. Minimum 2.5 program GPA upon graduation.
4. Residency hours – minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. All major course taken to meet Behavioral Science requirements must be completed with a grade of C- or better.
6. Successful completion of at least one Global/Intercultural course.

Note: Please see department advisor for explanation of all program requirements, a list of recommended classes, and for assistance with creating an academic plan for graduation.

Note: If a student has completed an associate degree through another institution, the required general education courses may be waived.

Note: Students would need to pass ENGL 1010 Introduction to Academic Writing or ENGH 1005 Literacies and Composition Across Contexts and ENGL 2010 Intermediate Writing/Academic Writing and Research with a C+ or higher for the Family Science degree courses.

Family Science, B.S.

Careers
1. Create educational interventions for individuals and families.
2. Demonstrate knowledge and skills related to the ten areas outlined for Certified Family Life Educators by the National Council on Family Relations
3. Apply best practices for communication and conflict management in interpersonal relationships and family systems
4. Demonstrate the ability to work with diverse populations and under served communities

Related Careers
• Farm and Home Management Advisors

Master of Social Work Advanced Standing, M.S.W.

Requirements
The Master of Social Work (MSW) at UVU is designed to educate and prepare students for a career at the next level in the social work profession. The MSW will prepare students to become a Licensed Clinical Social Worker (LCSW) qualifying them for a wider range of employment opportunities (mental health, medical social work, child welfare, etc.) working with various populations (children, adolescents, adults, elderly, disabled, etc.). The MSW Program will have three different specializations: Mental Health, Addictions (including substance and nonsubstance addictions, i.e. pornography, gambling, painkillers, etc.), and Engaging with Diverse Populations.

Total Program Credits: 42

Matriculation Requirements
1. Students admitted to the Advanced Standing MSW Program must have a Bachelor of Social Work from a CSWE accredited BSW program.
2. Application for admission to graduate program with application fee by the established deadline.
3. Submit official transcripts from all universities attended.
4. A bachelor's degree from a nationally accredited program, or the international equivalent.
5. A 3.0 cumulative undergraduate GPA or a 3.0 GPA calculated on the last 60 semester hours (90 quarter hours) of undergraduate work.
6. For international students whose native language is not English, submit official TOEFL or IELTS band scores. A TOEFL score
of 80 iBT (550 pBT) or higher, or an IELTS band score of 6.5 or higher within the past two years is required.

7. International students must also meet all US government requirement for international students.

8. The university uses a selective admissions process for admitting students to graduate programs. Meeting minimum admissions criteria does not guarantee admission to the graduate program or to the University as a graduate student.

**Graduation Requirements:**

1. Completion of a minimum of 42 semester credits required in the Master of Social Work degree.

**Discipline Core Requirements:**

**Social Work Core**

**Advanced Standing Bridge Requirement**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SW 6490</td>
<td>MSW Advanced Standing Bridge Course</td>
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<tr>
<td>SW 6491</td>
<td>MSW Advanced Standing Skills Course</td>
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</tr>
<tr>
<td>SW 6630</td>
<td>Mental Health Assessment in Social Work Practice</td>
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Complete the following:

<table>
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<tr>
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<tbody>
<tr>
<td>SW 6030</td>
<td>Social Work Practice III--Advanced Practice with Individuals</td>
<td>3</td>
</tr>
<tr>
<td>SW 6040</td>
<td>Social Work Practice IV--Advanced Practice with Families and Groups</td>
<td>3</td>
</tr>
<tr>
<td>SW 6050</td>
<td>Social Work Practice V--Advanced Practice with Organizations and Communities</td>
<td>3</td>
</tr>
<tr>
<td>SW 6500</td>
<td>Social Work Practice with Substance Related and Addictive Disorders</td>
<td>3</td>
</tr>
<tr>
<td>SW 6950</td>
<td>Advanced Applied Research--MSW Capstone</td>
<td>3</td>
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</table>

**Field Practicum Requirement**

Complete the following:

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<tr>
<td>SW 6830</td>
<td>Integrative Seminar III</td>
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<tr>
<td>SW 6930</td>
<td>Advanced Field Practicum I</td>
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**Elective Requirements:**

**Elective requirements**

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<tr>
<th>Course Number</th>
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<tbody>
<tr>
<td>SW 6530</td>
<td>Psychopharmacology (3)</td>
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<td>SW 6610</td>
<td>Spirituality in Social Work (3)</td>
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<td>SW 6620</td>
<td>Family Therapy (3)</td>
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<td>SW 6640</td>
<td>Crisis Intervention (3)</td>
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<td>SW 6650</td>
<td>Couples Therapy (3)</td>
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<td>SW 6660</td>
<td>Family Violence Across the Lifespan (3)</td>
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<td>SW 6700</td>
<td>Advanced Practice with Communities of Color and Other Diverse Populations (3)</td>
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<tr>
<td>SW 679R</td>
<td>Special Topics in Social Work Practice</td>
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<tr>
<td>SW 6945</td>
<td>Supplemental Field Practicum (1-4)</td>
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</table>

**or other departmental approved courses**

**Total Program Credits: 64**

**Master of Social Work Advanced Standing, M.S.W. Careers**

1. MSW students will be able to provide competent care to individuals, families, groups, communities, and societies as advanced generalist social work professionals.
2. MSW students will be able to promote social and economic justice within the psychosocial-cultural-context occupied by individuals, families, groups, communities, and societies.
3. MSW students will enhance their development by experiencing engaged teaching methods, clinically-based learning activities, and ongoing opportunities for self-exploration.
4. MSW students will promote the profession of social work in the local community and be able to identify how to practice in the local community is impacted by the global realities.
5. MSW students will be able to, with competence and cultural sensitivity, engage communities of color and other historically marginalized populations and increase both the provision of social work services and the utilization of social work services by members of these populations.
6. MSW students will competently evaluate research and engage in research-informed practice.

**Related Careers**

- Marriage and Family Therapists
- Counselors, All Other
- Child, Family, and School Social Workers
- Healthcare Social Workers
- Mental Health and Substance Abuse Social Workers
- Social Workers, All Other
- Probation Officers and Correctional Treatment Specialists
- Social Work Teachers, Postsecondary

**Master of Social Work, M.S.W. Requirements**

The Master of Social Work (MSW) at UVU is designed to educate and prepare students for a career at the next level in the social work profession. The MSW will prepare students to become a Licensed Clinical Social Worker (LCSW) qualifying them for a wider range of employment opportunities (mental health, medical social work, child welfare, etc.) working with various populations (children, adolescents, adults, elderly, disabled, etc.). The MSW Program will have three different specializations: Mental Health, Addictions (including substance and nonsubstance addictions, i.e. pornography, gambling, painkillers, etc.), and Engaging with Diverse Populations.

**Total Program Credits: 64**

**Matriculation Requirements**

1. Application for admission to graduate program with application fee by the established deadline.
2. Submit official transcripts from all universities attended.
Behavioral Science

3. A bachelor's degree from a regionally accredited college/university, a nationally accredited program, or the international equivalent.
4. A 3.0 cumulative undergraduate GPA or a 3.0 GPA calculated on the last 60 semester hours (90 quarter hours) of undergraduate work.
5. For international students whose native language is not English, submit official TOEFL or IELTS band scores. A TOEFL score of 80 iBT (550 pBT) or higher, or an IELTS band score of 6.5 or higher within the past two years is required.
6. International students must also meet all US government requirements for international students.
7. The university uses a selective admissions process for admitting students to graduate programs. Meeting minimum admissions criteria does not guarantee admission to the graduate program or to the University as a graduate student.

Discipline Core Requirements: 58 Credits

Social Work Core

Complete the following:

<table>
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<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SW 6000</td>
<td>Social Work Practice I—Generalist Practice with Individuals</td>
<td>3</td>
</tr>
<tr>
<td>SW 6020</td>
<td>Social Work Practice II-Generalist Practice with Families and Groups</td>
<td>3</td>
</tr>
<tr>
<td>SW 6250</td>
<td>Macro Systems and Social Impact</td>
<td>3</td>
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<tr>
<td>SW 6030</td>
<td>Social Work Practice III—Advanced Practice with Individuals</td>
<td>3</td>
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<tr>
<td>SW 6040</td>
<td>Social Work Practice IV—Advanced Practice with Families and Groups</td>
<td>3</td>
</tr>
<tr>
<td>SW 6050</td>
<td>Social Work Practice IV—Advanced Practice with Organizations and Communities</td>
<td>3</td>
</tr>
<tr>
<td>SW 6200</td>
<td>Human Behavior and the Social Environment</td>
<td>3</td>
</tr>
<tr>
<td>SW 6630</td>
<td>Mental Health Assessment in Social Work Practice</td>
<td>3</td>
</tr>
<tr>
<td>SW 6300</td>
<td>Social Welfare Policy and Analysis</td>
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</tr>
<tr>
<td>SW 6320</td>
<td>Social Work Practice with Diverse Populations</td>
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<tr>
<td>SW 6400</td>
<td>Social Work Research Methods</td>
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<tr>
<td>SW 6500</td>
<td>Social Work Practice with Substance Related and Addictive Disorders</td>
<td>3</td>
</tr>
<tr>
<td>SW 6950</td>
<td>Advanced Applied Research—MSW Capstone</td>
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Field Practicum Requirement

Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SW 6810</td>
<td>Integrative Seminar I</td>
<td>1</td>
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<tr>
<td>and</td>
<td>SW 6910 Foundation Field Practicum I</td>
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</tr>
<tr>
<td>SW 6820</td>
<td>Integrative Seminar II</td>
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<td>and</td>
<td>SW 6920 Foundation Field Practicum II</td>
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<tr>
<td>SW 6830</td>
<td>Integrative Seminar III</td>
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<td>and</td>
<td>SW 6930 Advanced Field Practicum I</td>
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<tr>
<td>SW 6840</td>
<td>Integrative Seminar IV</td>
<td>1</td>
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<tr>
<td>and</td>
<td>SW 6940 Advanced Field Practicum II</td>
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Elective Requirements: 6 Credits

Complete 6 credits from the following

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<thead>
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<tbody>
<tr>
<td>SW 6530</td>
<td>Psychopharmacology (3)</td>
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</table>

Graduation Requirements:

1. Completion of a minimum of 64 semester credits required in the Master of Social Work degree.
2. A minimum of two-thirds of graduate degree credit hours must be completed at Utah Valley University.
3. Overall cumulative grade point average of 3.0 or higher in Master of Social Work courses.
4. A grade of "C" or higher required for all courses used to satisfy graduation requirement.
5. Graduate coursework shall be completed within a six-year period.
6. Graduate credits accepted from another regionally accredited institution or equivalent shall have been completed within four years of the graduate student's matriculation into the graduate program and cannot be older than six years at the time of graduate with a master's degree or graduate certificate from the University.

Master of Social Work, M.S.W.

Careers

1. MSW students will be able to provide competent care to individuals, families, groups, communities, and societies as advanced generalist social work professionals.
2. MSW students will be able to promote social and economic justice within the psychosocial-cultural-context occupied by individuals, families, groups, communities, and societies.
3. MSW students will enhance their professional development by experiencing engaged teaching methods, clinically-based learning activities, and ongoing opportunities for self-exploration.
4. MSW students will promote the profession of social work in the local community and be able to identify how to practice in the local community is impacted by the global realities.
5. MSW students will be able to, with competence and cultural sensitivity, engage communities of color and other historically marginalized populations and increase both the provision of social work services and the utilization of social work services by members of these populations.
6. MSW students will competently evaluate research and engage in research-informed practice.

Related Careers

- Marriage and Family Therapists
- Counselors, All Other
- Child, Family, and School Social Workers
- Healthcare Social Workers
- Mental Health and Substance Abuse Social Workers
- Social Workers, All Other
- Probation Officers and Correctional Treatment Specialists
- Social Work Teachers, Postsecondary
**Psychology, B.A.**

**Requirements**

The BA in Psychology is designed for students who desire a full bachelor's degree in psychology. The degree will prepare students for careers and further education in Utah, the Mountain West, and nationwide by (a) creating a curriculum built around the five pillars of psychology described by the American Psychological Association (APA); (b) emphasizing skills desired by employers (e.g., written communication, critical thinking, working in teams); and (c) providing engaged learning experiences (e.g., service-learning, internship, capstone) about current psychological topics.

**Total Program Credits: 120**

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<thead>
<tr>
<th>General Education Requirements:</th>
<th>36 Credits</th>
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<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
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<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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<td>ENGL 2010 Intermediate Academic Writing CC</td>
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<tr>
<td>MAT 1030 Quantitative Reasoning QL (3)</td>
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<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (5)</td>
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</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
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<tr>
<td>MATH 1090 College Algebra for Business QL (3)</td>
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<tr>
<td>POLS 1000 American Heritage SS (3)</td>
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<tr>
<td>POLS 1100 American National Government AS (3)</td>
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<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
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<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
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<tr>
<td>PHIL 2050 Ethics and Values IH</td>
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<tr>
<td>HLTH 1100 Personal Health and Wellness TE</td>
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<tr>
<td>or EXSC 1097 Fitness for Life TE (2)</td>
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<tr>
<td>Distribution Course Requirements</td>
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<td>Biology</td>
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<td>Physical Science</td>
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<tr>
<td>Additional Biology or Physical Science</td>
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</tr>
<tr>
<td>Humanities (Fulfilled with Foreign Language 202G/2020 course)</td>
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</tr>
<tr>
<td>Fine Arts</td>
<td>3</td>
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<tr>
<td>PSY 1010 General Psychology SS (Fulfills Social/Behavioral Science)</td>
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</tr>
<tr>
<td>Discipline Core Requirements:</td>
<td>33 Credits</td>
</tr>
<tr>
<td>Psychology Core</td>
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</table>
Behavioral Science

1. Graduation requires a minimum of two Writing Enriched courses. One must be taken from Psychology Foundations or the Advanced Psychology Requirement.
2. Students must complete a minimum of 40 upper-division credits for graduation. Depending on courses completed for Psychology Foundations and Individual Differences, students may need to select additional upper-division electives.

Graduation Requirements:

1. Completion of a minimum of 120 credits, 40 of which must be 3000 level or higher.
2. Minimum overall UVU GPA of 2.0 upon graduation.
3. Minimum 2.5 program GPA upon graduation.
4. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. All major course work taken to meet Psychology requirements must be completed with a grade of C- or better.
6. For the BA degree, completion of 16 credit hours of course work from one language to include the 1010, 1020, 2010, 202G/2020 levels or transferred equivalents.
7. Successful completion of at least one Global/Intercultural course.

Note: Please see department advisor for explanation of all program requirements, a list of recommended classes, and for assistance with creating an academic plan for graduation.

Note: If a student has completed an associate degree through another institution, the required general education courses may be waived.

Note: Students would need to pass ENGL 1010 or ENGH 1005 and ENGL 2010 with a C+ or higher as prerequisites for the Psychology Bachelor degree courses.

Psychology, B.A.

Careers

1. Critically analyze quantitative data in order to draw empirically supported conclusions about human behaviors.
2. Write in a professional manner, defined as a mastery of the mechanics of basic writing, the conventions of professional writing (e.g., conforming to a publication style), and the ability to produce a coherent argument.
3. Interpret, design, and evaluate psychological research.
4. Demonstrate a critical understanding of the impact of societal inequality and oppression on psychological processes.

Related Careers

• Managers, All Other
• Clinical, Counseling, and School Psychologists
• Industrial-Organizational Psychologists
• Psychologists, All Other
• Psychology Teachers, Postsecondary

Psychology, B.S.

Requirements

The BS in Psychology is designed for students who desire a full bachelor’s degree in psychology. The degree will prepare students for careers and further education in Utah, the Mountain West, and nationwide by (a) creating a curriculum built around the five pillars of psychology described by the American Psychological Association (APA); (b) emphasizing skills desired by employers (e.g., written communication, critical thinking, working in teams); and (c) providing engaged learning experiences (e.g., service-learning, internship, capstone) about current psychological topics.

Total Program Credits: 120

General Education Requirements: 35 Credits

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
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<tr>
<td>ENGL 2010</td>
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Complete one of the following:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
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</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
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<tr>
<td>STAT 1040</td>
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<tbody>
<tr>
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<td>US History since 1877 AS (3)</td>
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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
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<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
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<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
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Distribution Course Requirements

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
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<tr>
<td>Physical Science</td>
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<td>Additional Biology or Physical Science</td>
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<td>Humanities</td>
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<tr>
<td>Fine Arts</td>
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<tr>
<td>PSY 1010</td>
<td>General Psychology SS (Fulfills Social/ Behavioral Science)</td>
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Discipline Core Requirements: 33 Credits

Psychology Core

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PSY 2020</td>
<td>Psychology as a Science and Profession WE</td>
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<td>PSY 3110</td>
<td>Statistics for the Behavioral Sciences</td>
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<td>PSY 3030</td>
<td>Research Methods for Psychology</td>
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Psychology Foundations - Complete 9 credits:

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<tr>
<td>PSY 1100</td>
<td>Human Development Life Span SS (3)</td>
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<td>PSY 2710</td>
<td>Introduction to Brain and Behavior SS (3)</td>
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<td>PSY 2300</td>
<td>Abnormal Psychology (3)</td>
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<td>PSY 3420</td>
<td>Cognitive Psychology WE (3)</td>
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<tr>
<td>PSY 350G</td>
<td>Social Psychology GI (3)</td>
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</tbody>
</table>

Individual Differences Requirement - Complete 3 credits: 3
Creating an academic plan for graduation.

Requirements, a list of recommended classes, and assistance with

Note: Please see department advisor for explanation of all program

Graduation Requirements:

1. Completion of a minimum of 120 credits, 40 of which must be 3000 level or higher.
2. Minimum overall UVU GPA of 2.0 upon graduation.
3. Minimum 2.5 program GPA upon graduation.
4. Residency hours--minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. All major course work taken to meet Psychology requirements must be completed with a grade of C- or better.
6. Successful completion of at least one Global/Intercultural course.

Note: If a student has completed an associate degree through another institution, the required general education courses may be waived.

Note: Students would need to pass ENGL 1010 or ENGH 1005 and ENGL 2010 with a C+ or higher as prerequisites for the Psychology Bachelor degree courses.

Psychology, B.S.

Careers

1. Critically analyze quantitative data in order to draw empirically supported conclusions about human behaviors.
2. Write in a professional manner, defined as a mastery of the mechanics of basic writing, the conventions of professional writing (e.g., conforming to a publication style), and the ability to produce a coherent argument.
3. Interpret, design, and evaluate psychological research.
4. Demonstrate a critical understanding of the impact of societal inequality and oppression on psychological processes.

Related Careers

• Managers, All Other
• Clinical, Counseling, and School Psychologists
• Industrial-Organizational Psychologists
• Psychologists, All Other
• Psychology Teachers, Postsecondary

Social Work, B.S.W.

Requirements

The UVU Behavioral Science Department offers classes that fulfill the social science distribution requirements for graduation, the Behavioral Science pre-major for the associate degree, the Behavioral Science major for the bachelor degree (with an emphasis in Anthropology, Family Studies, Psychology, or Sociology, a Bachelor of Social Work, and a Certificate of Proficiency in Substance Use Disorder Counseling (SUDC).

Total Program Credits: 120

Matriculation Requirements:

Admission to the BSW program includes the following requirements:

1. Completion of all general education courses.
2. Completion of SW 1010 Introduction to Social Work with a B- grade or higher.
3. Completion of ENGL 1010 Introduction to Academic Writing CC or ENGH 1005 Literacies and Composition Across Contexts CC and ENGL 2010 Intermediate Academic Writing CC with a C+ grade or higher.
4. Overall GPA of 2.5 or higher.
5. Approval of the Social Work Admissions Committee.

General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
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</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
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</tbody>
</table>

Elective Requirements: 52 Credits

Complete 52 credits of electives, including 13 credits of upper-division.

Notes:

1. Graduation requires a minimum of two Writing Enriched courses. One must be taken from Psychology Foundations or the Advanced Psychology Requirement.
2. Students must complete a minimum of 40 upper-division credits for graduation. Depending on courses completed for Psychology Foundations and Individual Differences, students may need to select additional upper-division electives.

Course Catalog 2023-2024
### Behavioral Science

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit</th>
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<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
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<td>MATH 1090</td>
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<tr>
<td><strong>Complete one of the following:</strong></td>
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<tr>
<td>POIS 1000</td>
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<tr>
<td>POIS 1100</td>
<td>American National Government AS (3)</td>
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<tr>
<td><strong>Complete the following:</strong></td>
<td>3</td>
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<tr>
<td>PHIL 2050</td>
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<td>or</td>
<td>EXSC 1097</td>
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<td>Fine Arts</td>
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<tr>
<td>PSY 1010</td>
<td>General Psychology SS (Social/Behavioral Science)</td>
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<td>PSY 3110</td>
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<td>SW 3860</td>
<td>Interviewing Skills</td>
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<td>SW 1010</td>
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<td>SW 2100</td>
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<td>SW 3100</td>
<td>Social Work Practice II *</td>
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<td>SW 3200</td>
<td>Social Work Practice III *</td>
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<td>SW 3400</td>
<td>Human Behavior and the Social Environment II *</td>
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<td>SW 3500</td>
<td>Social Welfare Policies and Services *</td>
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<td>SW 3600</td>
<td>Ethics and Values in Social Work Practice *</td>
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<td>SW 371G</td>
<td>Diversity Issues in Social Work Practice GI *</td>
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<tr>
<td>SW 481R</td>
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<tr>
<td>SW 481R</td>
<td>Field Placement *</td>
<td>5</td>
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<tr>
<td>SW 4850</td>
<td>Integrated Seminar II *</td>
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<tr>
<td><strong>Complete one of the following:</strong></td>
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<tr>
<td>BESC 3020</td>
<td>Research Methods for the Behavioral Sciences (3)</td>
<td></td>
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<tr>
<td>FAMS 3020</td>
<td>Research Methods for Family Science WE (3)</td>
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</tr>
<tr>
<td>PSY 3030</td>
<td>Research Methods for Psychology (4)</td>
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</tr>
</tbody>
</table>

### Social Work, B.S.W.

#### Careers

1. Demonstrate Ethical and Professional Behavior
2. Engage Diversity and Difference in Practice Advance Human Rights and Social, Economic, And Environmental Justice
3. Engage in Practice-informed Research and Research-Informed Practice
4. Engage in Policy Practice Engage with Individuals, Families, Groups, Organizations, and Communities
5. Assess Individuals, Families, Groups, Organizations, and Communities
6. Intervene with Individuals, Families, Groups, Organizations, and Communities.
7. Evaluate Practice with Individuals, Families, Groups, Organizations, and Communities
Sociology, B.A.

**Requirements**

Sociology is the scientific study of society which includes studying individuals in their primary and secondary groups and larger social institutions. It examines the social context of individual and collective lives. Sociology is a relatively young discipline that describes, explains, and predicts social interactions and institutions using theoretical as well as social scientific methods of inquiry. According to the American Sociological Association, the essential concepts that students will learn within sociology are social construction of everyday life and sociological imagination; social structure; socialization; social stratification, and social change. Students will also gain competencies in critical and theoretical thinking and application of social scientific methodology towards rigorous data analysis.

**Total Program Credits: 120**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>36 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL 4</td>
<td></td>
</tr>
<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
<td></td>
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<tr>
<td>MATH 1090 College Algebra for Business QL (3)</td>
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<tr>
<td>Complete one of the following:</td>
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</tr>
<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700 American Civilization AS (3)</td>
<td></td>
</tr>
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<td></td>
</tr>
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<td>POLS 1000 American Heritage SS (3)</td>
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</tr>
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<td>3</td>
</tr>
<tr>
<td>HLTH 1100 Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097 Fitness for Life TE (2)</td>
<td></td>
</tr>
<tr>
<td>Distribution Courses:</td>
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<tr>
<td>Behavioral Science</td>
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<tr>
<td>Biology</td>
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<tr>
<td>Physical Science</td>
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<tr>
<td>Third Science Distribution</td>
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</tr>
<tr>
<td>Humanities Distribution (Fulfilled with Foreign Language 202G/2020 course)*</td>
<td>4</td>
</tr>
<tr>
<td>Social/Behavioral Science Distribution</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts Distribution</td>
<td>3</td>
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<tr>
<td>Discipline Core Requirements:</td>
<td>47 Credits</td>
</tr>
<tr>
<td>Complete any 6 of the SOC classes</td>
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<tr>
<td>SOC 1010 Introduction to Sociology SS</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1020 Modern Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>PSY 3110 Statistics for the Behavioral Sciences</td>
<td>4</td>
</tr>
<tr>
<td>SOC 3030 Social Research Methods WE</td>
<td>3</td>
</tr>
<tr>
<td>SOC 4000 Classical Social Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOC 4100 Contemporary Social Theory WE</td>
<td>3</td>
</tr>
<tr>
<td>Elective Requirements:</td>
<td></td>
</tr>
<tr>
<td>15 credits any course number 3000 or higher</td>
<td>15</td>
</tr>
<tr>
<td>20 credits any course numbered 1000 or higher</td>
<td>20</td>
</tr>
<tr>
<td>Complete 12 credits of one Foreign Language, including ASL (Foreign Language 202G/2020* course fulfills Humanities Distribution)*</td>
<td>12</td>
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</table>

**Graduation Requirements:**

1. Completion of a minimum of 120 credits, 40 of which must be 3000 level or higher.
2. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
3. Minimum overall UVU GPA of 2.0 upon graduation.
4. Minimum 2.5 program GPA upon graduation.
5. All major course work taken to meet Behavioral Science requirements must be completed with a grade of C- or better.
6. Successful completion of at least one Global/Intercultural course.
7. Successful completion of at least two Writing Enriched courses.
8. For the BA degree, completion of 16 credit hours of course work from one language to include the 1010, 1020, 2010, 202G/2020 levels or transferred equivalents.

Note: Please see department advisor for explanation of all program requirements, a list of recommended classes, and for assistance with creating an academic plan for graduation.
Behavioral Science

Note: If a student has completed an associate degree through another institution, the required general education courses may be waived.

Note: Students would need to pass ENGL 1010 and ENGL 2010 with a C+ or higher as prerequisites for the Behavioral Science Bachelor degree courses.

Sociology, B.A.

**Careers**

1. Apply Sociological Theories to Understand Social Phenomena.
3. Apply Scientific Principles to Understand the Social World.
4. Evaluate the Quality of Social Scientific Methods and Data.
5. Rigorously Analyze Social Scientific Data.

**Related Careers**

- Managers, All Other
- Sociologists
- Sociology Teachers, Postsecondary

Sociology, B.S.

**Requirements**

Sociology is the scientific study of society which includes studying individuals in their primary and secondary groups and larger social institutions. It examines the social context of individual and collective lives. Sociology is a relatively young discipline that describes, explains, and predicts social interactions and institutions using theoretical as well as social scientific methods of inquiry. According to the American Sociological Association, the essential concepts that students will learn within sociology are social construction of everyday life and sociological imagination; social structure; socialization; social stratification, and social change. Students will also gain competencies in critical and theoretical thinking and application of social scientific methodology towards rigorous data analysis.

Total Program Credits: 120

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<thead>
<tr>
<th>General Education Requirements:</th>
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<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
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</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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</tr>
<tr>
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<td></td>
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<tr>
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<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
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<tr>
<td>HIST 1700 American Civilization AS (3)</td>
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**Discipline Core Requirements:** 37 Credits

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>SOC 1010</td>
<td>Introduction to Sociology SS</td>
</tr>
<tr>
<td>SOC 1020</td>
<td>Modern Social Problems</td>
</tr>
<tr>
<td>PSY 3110</td>
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<tr>
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<td>Classical Social Theory</td>
</tr>
<tr>
<td>SOC 4100</td>
<td>Contemporary Social Theory WE</td>
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Complete any 6 of the SOC classes 18

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>SOC 1200</td>
<td>Sociology of the Family SS (3)</td>
</tr>
<tr>
<td>SOC 2370</td>
<td>Sociology of Gender</td>
</tr>
<tr>
<td>SOC 263G</td>
<td>Race and Minority Relations GI (3)</td>
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<tr>
<td>SOC 3400</td>
<td>Sociology of Religion (3)</td>
</tr>
<tr>
<td>SOC 3460</td>
<td>Political Sociology (3)</td>
</tr>
<tr>
<td>SOC 3520</td>
<td>Environmental Sociology (3)</td>
</tr>
<tr>
<td>SOC 3690</td>
<td>Internet and Society</td>
</tr>
<tr>
<td>SOC 375G</td>
<td>Sociology of Aging GI (3)</td>
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<tr>
<td>SOC 3800</td>
<td>Animals and Society (3)</td>
</tr>
<tr>
<td>SOC 4020</td>
<td>Survey Research Design (3)</td>
</tr>
<tr>
<td>SOC 4400</td>
<td>Social Change (3)</td>
</tr>
<tr>
<td>SOC 475R</td>
<td>Current Topics in Sociology (1-3)</td>
</tr>
<tr>
<td>SOC 490R</td>
<td>Independent Studies (1-3)</td>
</tr>
</tbody>
</table>

**Elective Requirements:** 48 Credits

- 15 credits any course number 3000 or higher
- 33 credits any course numbered 1000 or higher

**Graduation Requirements:**

1. Completion of a minimum of 120 credits, 40 of which must be 3000 level or higher.
2. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
3. Minimum overall UVU GPA of 2.0 upon graduation.
4. Minimum 2.5 program GPA upon graduation.
5. All major course work taken to meet Behavioral Science requirements must be completed with a grade of C- or better.
6. Successful completion of at least one Global/Intercultural course.
7. Successful completion of at least two Writing Enriched courses.

Note: Please see department advisor for explanation of all program requirements, a list of recommended classes, and for assistance with creating an academic plan for graduation.

Note: If a student has completed an associate degree through another institution, the required general education courses may be waived.

Note: Students would need to pass ENGL 1010 and ENGL 2010 with a C+ or higher as prerequisites for the Behavioral Science Bachelor degree courses.

Sociology, B.S.

Careers

1. Students will be able to distinguish between basic concepts and theoretical perspectives in sociology and how they are used in sociological explanations of social behavior.
2. Students will be able to distinguish and apply core substantive areas of sociological inquiry.
3. Students will be able to express sociological ideas critically, clearly, and coherently both in writing and in oral presentations.
4. Students will collect, analyze, and interpret empirical evidence in sociological research.

Related Careers
- Managers, All Other
- Sociologists
- Sociology Teachers, Postsecondary
Biology

The Biology department is in the College of Science. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Biology department, visit their website.

DEPARTMENT CHAIR
Gazdik Stober, Michaela  Associate Professor

FACULTY
Beucher, Margaret  Lecturer
Brooks, Lauren  Assistant Professor
Bybee, Paul  Professor
Cusick, Jessica  Assistant Professor
Domyan, Eric  Assistant Professor
Dunn, Paul H.  Associate Professor
Egan, Ashley  Associate Professor
Fairbanks, Daniel  Professor
Flood, Sara  Associate Professor
Gazdik Stober, Michaela  Associate Professor
Hjelmen, Carl  Assistant Professor
Hough, Colleen  Associate Professor
Karafiath, Summer  Assistant Professor
Kopp, Olga R.  Professor
Kuddus, Ruhul H.  Professor
Lane, Alma Glenn  Assistant Professor
Mugleston, Joseph  Lecturer
Ogden, T. Heath  Associate Professor
Otalora-Luna, Fernando  Lecturer
Price, James V.  Professor
Rotter, Michael  Assistant Professor
Stevens, Michael T.  Professor
Tauzin, Sebastien  Associate Professor
Taylor, Danielle  Assistant Professor
Taylor, Devin  Assistant Professor
Thompson, Zoe  Assistant Professor
Tonga, Lavon  Lecturer
Whaley, Wayne  Professor
Wilson-Ashworth, Heather A.  Professor
Wyatt, Britney  Assistant Professor
Zahn, Geoffrey  Assistant Professor

Course Descriptions

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Biology</td>
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<tr>
<td>Botany</td>
<td>574</td>
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<tr>
<td>Biotechnology</td>
<td>576</td>
</tr>
<tr>
<td>Microbiology</td>
<td>776</td>
</tr>
<tr>
<td>Zoology</td>
<td>866</td>
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</tbody>
</table>

Degrees & Programs

Biology, A.A.

Requirements

Students interested in biology, or related fields, are encouraged to earn at least a baccalaureate degree (BS). Many professions (e.g., Pharmacy or Medicine) require additional post-baccalaureate education. The AS/AA degree is intended for students who plan to use it as a first step toward a baccalaureate degree. The AS/AA degree may be granted to those who do not continue in a bachelor's program and meet the minimum requirements.

Total Program Credits: 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>39 Credits</th>
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<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5.0)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 1055 College Algebra with Preliminaries QL (5.0)</td>
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Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HIST 2700 US History to 1877 AS (3.0)</td>
<td></td>
</tr>
<tr>
<td>and HIST 2710 US History since 1877 AS (3.0)</td>
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<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>or PHIL 205G Ethics and Values IH GI (3.0)</td>
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</tr>
<tr>
<td>HLTH 1100 Personal Health and Wellness TE (2.0)</td>
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<tr>
<td>or EXSC 1097 Fitness for Life TE</td>
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Distribution Courses:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BIOL 1610 College Biology I BB (To be taken with BIOL 1615)</td>
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</tr>
<tr>
<td>CHEM 1210 Principles of Chemistry I PP (To be taken with CHEM 1215)</td>
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</tr>
<tr>
<td>CHEM 1220 Principles of Chemistry II PP (To be taken with CHEM 1225)</td>
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</table>

Humanities Distribution | 3 |

Fine Arts Distribution | 3 |

Social/Behavioral Science | 3 |

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
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<tbody>
<tr>
<td>BIOL 1615 College Biology I Laboratory (To be taken with BIOL 1610)</td>
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<tr>
<td>BIOL 1620 College Biology II</td>
<td>3</td>
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<tr>
<td>and BIOL 1625 College Biology II Laboratory</td>
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</tr>
<tr>
<td>CHEM 1215 Principles of Chemistry I Laboratory (To be taken with CHEM 1210)</td>
<td>1</td>
</tr>
</tbody>
</table>
### Biology

**CHEM 1225** Principles of Chemistry II Laboratory  
(To be taken with CHEM 1220)  
1

Minimum of 2 additional biology courses (BIOL, BOT, BTEC, MICR, or ZOOL prefixes).

Elective Requirements:  
8 Credits

<table>
<thead>
<tr>
<th>Course</th>
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<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<td></td>
</tr>
<tr>
<td>ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5.0)</td>
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<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
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<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. For the AA degree, completion of 8 credit hours of course work from one language.

Footnote

1 BIOL 1010 cannot be used to meet this requirement. See Biology Advisor.

---

### Biology, A.A.

**Careers**

1. Demonstrate knowledge of cellular biology.
2. Demonstrate a knowledge of molecular genetics and principles of inheritance.

**Related Careers**

- Natural Sciences Managers
- Biological Scientists, All Other
- Life Scientists, All Other
- Biological Science Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education

### Biology, A.S.

**Requirements**

Students interested in biology, or related fields, are encouraged to earn at least a baccalaureate degree (BS). Many professions (e.g., Pharmacy or Medicine) require additional post-baccalaureate education. The AS/AA degree is intended for students who plan to use it as a first step toward a baccalaureate degree. The AS/AA degree may be granted to those who do not continue in a bachelor's program and meet the minimum requirements.

**Total Program Credits: 60**

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**Elective Requirements:**

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<tr>
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<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
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**Distribution Courses:**

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<th>Title</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 1610</td>
<td>College Biology I BB (To be taken with BIOL 1615)</td>
<td>4</td>
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<tr>
<td>CHEM 1210</td>
<td>Principles of Chemistry I PP (To be taken with CHEM 1215)</td>
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<tr>
<td>CHEM 1220</td>
<td>Principles of Chemistry II PP (To be taken with CHEM 1225)</td>
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<td>Humanities Distribution</td>
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<tr>
<td>Social/Behavioral Science</td>
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**Discipline Core Requirements:**

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<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 1615</td>
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<tr>
<td>BIOL 1620</td>
<td>College Biology II</td>
<td>3</td>
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<tr>
<td>and BIOL 1625</td>
<td>College Biology II Laboratory</td>
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<tr>
<td>CHEM 1215</td>
<td>Principles of Chemistry I Laboratory (To be taken with CHEM 1210)</td>
<td>1</td>
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<tr>
<td>CHEM 1225</td>
<td>Principles of Chemistry II Laboratory (To be taken with CHEM 1220)</td>
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</table>
| Minimum of 2 additional biology courses (BIOL, BOT, MICR, or ZOOL prefixes.)  
| | 6 |

**Elective Requirements:**  
8 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Comple</td>
<td>any course 1000 or higher. See Biology Advisor.</td>
<td>8</td>
<td></td>
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</table>

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Footnote

1 BIOL 1010 cannot be used to meet this requirement. See Biology Advisor.

**Biology, A.S.**

**Careers**

1. Demonstrate knowledge of cellular biology.
2. Demonstrate a knowledge of molecular genetics and principles of inheritance.
Biology

Related Careers
- Natural Sciences Managers
- Biological Scientists, All Other
- Life Scientists, All Other
- Biological Science Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education

Biology, Minor

Requirements
The minor is a way for students to investigate the Biology Degree.

Total Program Credits: 21

Matriculation Requirements:
1. Admitted to a bachelor degree program at UVU.

Discipline Core Requirements: 21 Credits

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
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</tr>
<tr>
<td>BIOL 1625</td>
<td>College Biology II Laboratory</td>
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</table>

Total: 12 upper-division credits from any BIOL, BOT, MICR, or ZOOL courses with a grade of C- or higher in each. BIOL 489R, BIOL 499R, cannot be used to meet this requirement.

Notes:
1. BIOL 489R Student Research, BIOL 499R Senior Thesis, cannot be used to meet this requirement.

Biology, Minor

Careers

1. Apply the process of science through the use of hypothesis testing in the design and completion of scientific experiments.
2. Critically evaluate scientific information.
3. Quantitatively analyze scientific data through graph interpretation, statistical analysis, and problem solving.
4. Effectively communicate scientific information in both written and oral formats.
5. Explain fundamental biological concepts including cell biology, genetics, evolution, ecological principles, organismal biology, and biodiversity.
6. Apply scientific concepts both across and outside of biology that demonstrate interdisciplinary understanding.

Related Careers
- Natural Sciences Managers
- Biological Scientists, All Other
- Life Scientists, All Other
- Biological Science Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education

Bioinformatics, B.S.

Requirements
Bioinformatics is the fastest growing field in Biology. In general terms, bioinformatics is the synthesis of computational methods and biological systems and comprises many sub-fields that approach different questions in biology. A Bachelor of Science in Bioinformatics will prepare students to enter a variety of fields such as: medical informatics and interventions, new agricultural paradigms, pharmaceutical discovery, and molecular genealogy predictions, among others. This degree would provide students with the knowledge, skills, and experience to be competitive for both graduate school and employment opportunities.

Total Program Credits: 120

Matriculation Requirements:
BIOL 1610 College Biology BB with C- or higher
CS 1400 Fundamentals of Programming with a C+ or higher, and
Approval of Biology Department or Computer Science Department advisor.

General Education Requirements: 39 Credits

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<td>or</td>
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<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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<tr>
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<td>or</td>
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<td>American Civilization AS</td>
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<td>HIST 1740</td>
<td>US Economic History AS</td>
<td>3</td>
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<td>POLS 1000</td>
<td>American Heritage SS</td>
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<td>POLS 1100</td>
<td>American National Government AS</td>
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<td>PHIL 205G Ethics and Values IH GI</td>
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<td>or</td>
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Distribution Courses: 31 Credits

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Discipline Core Requirements: 50 Credits

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<td>College Biology I Laboratory</td>
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<tr>
<td>BIOL 3500</td>
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<td>BIOL 3550</td>
<td>Molecular Biology</td>
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<td>BIOL 3100</td>
<td>Introduction to Data Analysis for Biologists</td>
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<tr>
<td>BIOL 492R</td>
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<tr>
<td>BIOL 494R</td>
<td>Student Seminar WE</td>
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</table>
Biology

BIOL 497R Biology Colloquium (0.5 cr, two required) 1
BIOL 4550 Molecular Evolution and Bioinformatics WE 3
BIOL 4600 Bioinformatics Capstone 3
STAT 2040 Principles of Statistics QL 4
CHEM 1215 Principles of Chemistry I Laboratory 1
CHEM 1225 Principles of Chemistry II Laboratory 1
CS 1400 Fundamentals of Programming 3
CS 1410 Object Oriented Programming 3
CS 2300 Discrete Mathematical Structures I 3
CS 2420 Introduction to Algorithms and Data Structures 3
CS 305G Global Social and Ethical Issues in Computing GI WE 3
INFO 2410 Database Fundamentals 3
IT 1510 Introduction to System Administration--Linux/UNIX 3

Elective Requirements: 31 Credits
Choose 6 credits from any general electives.1 6
Choose 25 credits from list below or approved by advisor 25

BIOL 4300 Bioinformatics and Genome Analysis (4)
BIOL 3700 General Ecology (3)
BIOL 4500 Principles of Evolution WE (3)
BIOL 4400 Genomics (3)
BIOL 489R Student Research (1-9)
BIOL 490R Special Topics in Biology (1-4)
BIOL 499R Senior Thesis (1-2)
MICR 3200 Emerging and Re Emerging Diseases and Zoonoses (3)
MICR 2060 Microbiology for Health Professions BB (3)
MICR 3450 General Microbiology (3)
CS 3270 Python Software Development (3)
CS 3320 Numerical Software Development (3)
CS 3520 Database Theory (3)
CS 3530 Data Management For Data Sciences (3)
STAT 4100 Design of Experiment (3)
STAT 4400 Multivariate Analysis WE (3)
STAT 4710 Mathematical Statistics-Probability and Statistics (3)
STAT 4720 Mathematical Statistics-Statistical Inference (3)
MATH 1210 Calculus I QL (4)
MATH 121H Calculus I QL (4)
MATH 1220 Calculus II (4)
MATH 122H Calculus II (4)

MATH 2270 Linear Algebra (3)
MATH 2210 Calculus III (4)
or MATH 222H Calculus III (4)

Graduation Requirements:
1. Complete the required minimum credit hours.
2. If an AA or AS degree has been earned, a maximum of 64 of these credits may apply toward the BS.
3. At least 30 credit hours in residence at UVU or satellite sites are required, with 10 hours earned during the last 45 hours.
4. A minimum of 40 credits must be upper-division (numbered 3000 or above).
5. A minimum of 40 credits must be in the major, 30 of which must be upper-division. A minimum of nine Department credits must be taken at UVU.
6. Except for 490R Special Topics courses, a maximum cumulative total of 9 credits in any combination of upper division Departmental courses with an "R" designation may count toward graduation.
7. Complete Biology Department core courses with a grade of "C-" or higher in each course.
8. Achieve a minimum overall GPA of 2.0 with a minimum GPA of 2.25 in biology department courses.
9. Complete the appropriate application for graduation form.
10. Successful completion of at least one Global/Intercultural course.

Footnotes:
1 Upper division is suggested to meet upper division requirements

Bioinformatics, B.S.

Careers
1. Demonstrate mastery of the core concepts of bioinformatics as derived from the associated fields of biology, computer science, mathematics, informatics, and chemistry.
2. Utilize existing software to extract, compile, and analyze information from large databases.
3. Create data science pipelines and/or computer programs that facilitate biological data analysis.
4. Complete a project in bioinformatics and communicate the outcomes effectively by participation in one or more of the following: an internship, a professional presentation, mentored research, or as coauthor of a peer-reviewed publication (or other approved activity).

Related Careers
- Computer and Information Research Scientists
- Software Developers, Applications
- Computer Occupations, All Other

Biology Education, B.S.

Requirements
Biology is the study of living organisms and includes study of subjects such as evolution, ecology, zoology, physiology, anatomy, and botany among other subjects. Completion of this degree will prepare students to teach classes in high school biology, and related subjects, plus integrated science at the 7th grade level.

Total Program Credits: 126

Matriculation Requirements:
Admission to Professional Education status is a requirement for enrollment in professional studies level courses. Admission criteria includes:
1. ENGL and MATH QL courses must have a grade C or higher.
2. GPA of 3.0 or higher with no grade lower than a C in content area courses.
3. Completion of all General Education requirements and 70% of content area courses.
4. Pass LiveScan Criminal Background Check.

General Education Requirements: 38 Credits

**ENGL 1010** Introduction to Academic Writing CC 3
or **ENGH 1005** Literacies and Composition Across Context CC (5.0)

**ENGL 2010** Intermediate Academic Writing CC 3

**MATH 1050** College Algebra QL 4
or **MATH 1055** College Algebra with Preliminaries QL (5.0)

Complete one of the following: 3

- **HIST 2700** US History to 1877 AS (3.0)
- **HIST 2710** US History since 1877 AS (3.0)
- **HIST 1700** American Civilization AS (3.0)
- **HIST 1740** US Economic History AS (3.0)
- **POLS 1000** American Heritage SS (3.0)
- **POLS 1100** American National Government AS (3.0)

Complete the following: 3

- **PHIL 2050** Ethics and Values IH 3
- **PHIL 205G** Ethics and Values IH GI
- **HLTH 1100** Personal Health and Wellness TE (2.0)
- **EXSC 1097** Fitness for Life TE 2

Distribution Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>BIOL 1610</td>
<td>College Biology I BB</td>
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<tr>
<td>CHEM 1110</td>
<td>Elementary Chemistry for the Health Sciences PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 1010</td>
<td>Elementary Physics PP</td>
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<tr>
<td>Humanities Distribution</td>
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<td>Fine Arts Distribution</td>
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<tr>
<td>Social/Behavioral Science Distribution</td>
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</table>

Discipline Core Requirements: 88 Credits

**BIOL 1615** College Biology I Laboratory 1
**BIOL 1620** College Biology II 3
and **BIOL 1625** College Biology II Laboratory 1

Complete three of the following sequences: (MICR 2060/2065 & MICR 3450/3455 cannot both count) 12

- **MICR 2060** Microbiology for Health Professions BB (3)
- **MICR 2065** Microbiology for Health Professions Laboratory (1)
- **MICR 3450** General Microbiology (3)
- **MICR 3455** General Microbiology Laboratory (1)
- **ZOOL 3100** Vertebrate Zoology (3)
- **ZOOL 3105** Vertebrate Zoology Laboratory (1)
- **ZOOL 3200** Invertebrate Zoology (3)
- **ZOOL 3205** Invertebrate Zoology Laboratory (1)

Complete one of the following: 3

- **BIOL 2500** Environmental Biology BB (3)
- **BIOL 3300** Developmental Biology (3)
- **BIOL 3800** Conservation Biology (3)
- **BIOL 4300** Bioinformatics and Genome Analysis (4)
- **BOT 2050** Field Botany BB (3)
- **BOT 2400** Plant Kingdom BB (4)
- **BOT 2100** Flora of Utah BB (3)
- **BOT 4300** Native Trees and Shrubs of Utah (3)
- **MICR 3200** Emerging and Re Emerging Diseases and Zoonoses (3)
- **ZOOL 4000** Animal Behavior (3)
- **BIOL 3500** Genetics (3)
- **BIOL 3200** Guided Research Experience (1-3)

Complete the following: 3

- **BIOL 3700** General Ecology
- **BIOL 4500** Principles of Evolution WE
- **BIOL 494R** Student Seminar WE
- **BOT 3340** Plant Biology
- **SCIE 4210** Science Teaching Methods I
- **SCIE 4220** Teaching Methods in Science II
- **ZOOL 2320** Human Anatomy BB
- **ZOOL 2325** Human Anatomy Laboratory
- **ZOOL 2420** Human Physiology
- **ZOOL 2425** Human Physiology Laboratory
- **CHEM 1115** Elementary Chemistry Laboratory
- **CHEM 1120** Elementary Organic Bio-Chemistry
- **ZOOL 2320** Human Anatomy BB
- **ZOOL 2325** Human Anatomy Laboratory
- **ZOOL 2420** Human Physiology
- **ZOOL 2425** Human Physiology Laboratory
- **ZOOL 2420** Human Physiology Laboratory
- **ZOOL 2425** Human Physiology Laboratory
- **CHEM 1115** Elementary Chemistry Laboratory
- **CHEM 1120** Elementary Organic Bio-Chemistry Laboratory
- **GEO 1010** Introduction to Geology PP
- **GEO 1015** Introduction to Geology Laboratory

Education Courses: 1

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<td>EDSC 325G</td>
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<td>EDSP 340G</td>
<td>Exceptional Students GI</td>
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<td>EDSC 4200</td>
<td>Classroom Management I</td>
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<td>EDSC 4250</td>
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<td>EDSC 445G</td>
<td>Multicultural Instruction ESL GI</td>
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<td>EDSC 4440</td>
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<td>EDSC 455G</td>
<td>Secondary Curriculum Instruction and Assessment GI</td>
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<td>EDSC 4850</td>
<td>Student Teaching Secondary</td>
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<tr>
<td>EDSC 4990</td>
<td>Teacher Performance Assessment Project WE</td>
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</table>
Graduation Requirements:
1. Complete the required minimum credit hours.
2. If an AA or AS degree has been earned, a maximum of 64 of these credits may apply toward the BS.
3. At least 30 credit hours in residence at UVU or satellite sites are required, with 10 hours earned during the last 45 hours.
4. A minimum of 40 credits must be upper-division (numbered 3000 or above).
5. A minimum of 30 credits must be in the major (BIOL, BOT, MICR, or ZOOL prefixes), courses as follows: minimum of 9 Biology credits must be taken at UVU and a minimum of 20 Biology credits must be upper-division.
6. Complete the appropriate application for graduation form.
7. Successful completion of at least one Global/Intercultural course.
8. Overall Grade of 3.0 (B) or above with no grade lower than a C or better in major required content courses and no grade lower than a B- in Licensure and Methods courses.

Footnotes:
1- Must be completed with a grade of B- or higher.

Biology Education, B.S.

Careers
1. Demonstrate an overall knowledge of biology needed to teach in the secondary education system.
2. MFAT test Data in support of Overall Knowledge of Biology needed to teach in the SecondaryEducation System
3. State Praxis Test Scores in support of Demonstrating overall knowledge of Biology to teach in theSecondary Education System
4. 90% of UVU students completing a Bachelors of Science Degree in Secondary Education in biologyand who apply for employment teaching in junior high and high schools will successfully gain employment in secondary education within one year.
5. Students who do gain employment in secondary education will demonstrate skill and knowledge in pedagogy.

Related Careers
• Biological Science Teachers, Postsecondary
• Education Teachers, Postsecondary
• Middle School Teachers, Except Special and Career/Technical Education
• Secondary School Teachers, Except Special and Career/Technical Education

Biology, B.S.

Requirements
Students interested in Biology, or related fields, are encouraged to earn at least a baccalaureate degree (BS). Many professions (e.g., Pharmacy or Medicine) require additional post-baccalaureate education. The BS degree in Biology may be used for entry into a career or in preparation for graduate (Masters/PhD) or professional schools (medical, dental, pharmacy, etc.).

Total Program Credits: 120

Matriculation Requirements:
BIOL 1610 College Biology I with C- or higher and approval of Biology Department advisor.

General Education Requirements: 39 Credits

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Discipline Core Requirements: 54 Credits

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<tr>
<td>BIOL 1625</td>
<td>College Biology II Laboratory</td>
</tr>
<tr>
<td>BIOL 3400</td>
<td>Cell Biology</td>
</tr>
<tr>
<td>BIOL 3500</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIOL 3550</td>
<td>Molecular Biology</td>
</tr>
<tr>
<td>BIOL 3600</td>
<td>Biological Chemistry</td>
</tr>
<tr>
<td>BIOL 3700</td>
<td>General Ecology</td>
</tr>
<tr>
<td>BIOL 4500</td>
<td>Principles of Evolution WE</td>
</tr>
<tr>
<td>BIOL 492R</td>
<td>Professional Development</td>
</tr>
<tr>
<td>BIOL 494R</td>
<td>Student Seminar WE</td>
</tr>
<tr>
<td>BIOL 497R</td>
<td>Biology Colloquium (0.5 cr, two required)</td>
</tr>
</tbody>
</table>

Complete one of the following upper division lab courses: One course from this category needs to be taken although only 1 credit hour is required.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3100</td>
<td>Introduction to Data Analysis for Biologists</td>
</tr>
<tr>
<td>BIOL 3200</td>
<td>Guided Research Experience (1-3)</td>
</tr>
<tr>
<td>BIOL 3405</td>
<td>Cell Biology Laboratory</td>
</tr>
<tr>
<td>BIOL 3515</td>
<td>Advanced Genetics Laboratory</td>
</tr>
<tr>
<td>BIOL 3555</td>
<td>Experiments in Molecular Biology</td>
</tr>
</tbody>
</table>
Biology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 4300</td>
<td>Bioinformatics and Genome Analysis (4)</td>
</tr>
<tr>
<td>BIOL 4550</td>
<td>Molecular Evolution and Bioinformatics WE (3)</td>
</tr>
<tr>
<td>MICR 3150</td>
<td>Microbial Ecology WE (4)</td>
</tr>
<tr>
<td>MICR 3455</td>
<td>General Microbiology Laboratory (1)</td>
</tr>
<tr>
<td>MICR 4505</td>
<td>Applied Virological Methods (3)</td>
</tr>
<tr>
<td>BOT 3500</td>
<td>Mycology (4)</td>
</tr>
<tr>
<td>BOT 3800</td>
<td>Ethnobotany WE (4)</td>
</tr>
<tr>
<td>BOT 4100</td>
<td>Plant Anatomy (4)</td>
</tr>
<tr>
<td>BOT 4200</td>
<td>Plant Systematics (3)</td>
</tr>
<tr>
<td>BOT 4430</td>
<td>Plant Pathology (3)</td>
</tr>
<tr>
<td>BOT 4600</td>
<td>Plant Physiology WE</td>
</tr>
<tr>
<td>and BOT 4605</td>
<td>Plant Physiology Laboratory (4)</td>
</tr>
<tr>
<td>and BOT 4700</td>
<td>Plant Tissue Culture WE (4)</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>4</td>
</tr>
<tr>
<td>STAT 2040</td>
<td>Principles of Statistics QL</td>
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<tr>
<td>or MATH 1060</td>
<td>Trigonometry QL (3)</td>
</tr>
<tr>
<td>and MATH 1210</td>
<td>Calculus I QL (5)</td>
</tr>
<tr>
<td>PHYS 2010</td>
<td>College Physics I PP</td>
</tr>
<tr>
<td>PHYS 2015</td>
<td>College Physics I Lab</td>
</tr>
<tr>
<td>PHYS 2020</td>
<td>College Physics II PP</td>
</tr>
<tr>
<td>PHYS 2025</td>
<td>College Physics II Lab</td>
</tr>
<tr>
<td>CHEM 1215</td>
<td>Principles of Chemistry I Laboratory</td>
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<tr>
<td>CHEM 1225</td>
<td>Principles of Chemistry II Laboratory</td>
</tr>
<tr>
<td>CHEM 2310</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM 2315</td>
<td>Organic Chemistry I Laboratory</td>
</tr>
<tr>
<td>CHEM 2320</td>
<td>Organic Chemistry II</td>
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<tr>
<td>CHEM 2325</td>
<td>Organic Chemistry II Laboratory</td>
</tr>
<tr>
<td>Elective Requirements:</td>
<td>27 Credits</td>
</tr>
<tr>
<td>Choose 4 credits from any MICR electives.</td>
<td>4</td>
</tr>
<tr>
<td>Choose 3 credits from any BOT electives.</td>
<td>3</td>
</tr>
<tr>
<td>Choose 3 credits from any ZOOL electives.</td>
<td>3</td>
</tr>
<tr>
<td>Additional credits to meet credit and upper-division requirements.</td>
<td>17</td>
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</tbody>
</table>

Graduation Requirements:

1. Complete the required minimum credit hours.
2. If an AA or AS degree has been earned, a maximum of 64 of these credits may apply toward the BS.
3. At least 30 credit hours in residence at UVU or satellite sites are required, with 10 hours earned during the last 45 hours.
4. A minimum of 40 credits must be upper-division (numbered 3000 or above).
5. A minimum of 40 credits must be in the major (BIOL, BOT, BTEC, MICR, or ZOOL prefixes), 30 of which must be upper-division. A minimum of nine Department credits must be taken at UVU.
6. Except for 490R Special Topics courses, a maximum cumulative total of 9 credits in any combination of upper division Departmental courses with an "R" designation may count toward graduation.
7. Complete Biology Department core courses with a grade of "C-" or higher in each course.
8. Achieve a minimum overall GPA of 2.0 with a minimum GPA of 2.25 in biology department courses.
9. Complete the appropriate application for graduation form.
10. Successful completion of at least one Global/Intercultural course.

Footnote

Upper division is suggested to meet upper division requirements

Biology, B.S.

Careers

1. Apply the process of science through the use of hypothesis testing in the design and completion of scientific experiments
2. Critically evaluate scientific information
3. Quantitatively analyze scientific data through graph interpretation, statistical analysis, and problem solving
4. Effectively communicate scientific information in both written and oral formats.
5. Explain fundamental biological concepts including cell biology, genetics, evolution, ecological principles, organismal biology, and biodiversity
6. Apply scientific concepts both across and outside of biology that demonstrate interdisciplinary understanding

Related Careers

- Natural Sciences Managers
- Biological Scientists, All Other
- Life Scientists, All Other
- Biological Science Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education

Biotechnology, B.S.

Requirements

The Bachelor's Degree in Biotechnology will prepare students to enter the field of research, education, pharmaceuticals, forensics, and a variety of other careers. It is also great preparation for advanced degrees in the sciences.

Total Program Credits: 124

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>39 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Context CC</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
</tr>
<tr>
<td>or MATH 1055</td>
<td>College Algebra with Preliminaries QL</td>
</tr>
<tr>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS</td>
</tr>
<tr>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
</tr>
</tbody>
</table>
Distribution Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1610</td>
<td>College Biology I BB</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1210</td>
<td>Principles of Chemistry I PP</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1220</td>
<td>Principles of Chemistry II PP</td>
<td>4</td>
</tr>
</tbody>
</table>

Humanities Distribution 3
Fine Arts Distribution 3
Social/Behavioral Science 3

Discipline Core Requirements: 73 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL 1615</td>
<td>College Biology I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 3400</td>
<td>Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 3500</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 3550</td>
<td>Molecular Biology</td>
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<tr>
<td>BIOL 3600</td>
<td>Biological Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4550</td>
<td>Molecular Evolution and Bioinformatics WE</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 494R</td>
<td>Student Seminar WE</td>
<td>2</td>
</tr>
</tbody>
</table>

Choose any 2 from the following. **Student must complete at least 2 of the courses listed even if it exceeds the required 3 credit hours.**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3515</td>
<td>Advanced Genetics Laboratory (1)</td>
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<tr>
<td>BIOL 3605</td>
<td>Biological Chemistry Lab (1)</td>
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</tr>
<tr>
<td>BIOL 3405</td>
<td>Cell Biology Laboratory (1)</td>
<td></td>
</tr>
<tr>
<td>BIOL 3100</td>
<td>Introduction to Data Analysis for Biologists (3)</td>
<td></td>
</tr>
<tr>
<td>BIOL 3555</td>
<td>Experiments in Molecular Biology (1)</td>
<td></td>
</tr>
<tr>
<td>CHEM 3005</td>
<td>Analytical Chemistry Laboratory (2)</td>
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</tr>
<tr>
<td>BTEC 3300</td>
<td>Biomolecular Modeling and Simulations (4)</td>
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</tr>
<tr>
<td>BOT 4700</td>
<td>Plant Tissue Culture WE (4)</td>
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</tr>
<tr>
<td>ZOOL 4300</td>
<td>Histology (4)</td>
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</tbody>
</table>

Choose any from the following: 8

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 481R</td>
<td>Biotechnology Internship (1-10)</td>
<td></td>
</tr>
<tr>
<td>BIOL 489R</td>
<td>Student Research (1-4)</td>
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</tr>
<tr>
<td>BTEC 489R</td>
<td>Student Research (1-4)</td>
<td></td>
</tr>
<tr>
<td>BTEC 499R</td>
<td>Senior Thesis (1-2)</td>
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</tbody>
</table>

Choose from 1 MICR course and accompanying lab from the following: 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICR 3450</td>
<td>General Microbiology (3)</td>
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<tr>
<td><strong>Recommended</strong></td>
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<td></td>
</tr>
<tr>
<td>MICR 3455</td>
<td>General Microbiology Laboratory (1)</td>
<td></td>
</tr>
<tr>
<td>MICR 2060</td>
<td>Microbiology for Health Professions BB (3)</td>
<td></td>
</tr>
<tr>
<td>MICR 2065</td>
<td>Microbiology for Health Professions Laboratory (1)</td>
<td></td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 2040</td>
<td>Principles of Statistics QL</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2010</td>
<td>College Physics I PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2015</td>
<td>College Physics I Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2020</td>
<td>College Physics II PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2025</td>
<td>College Physics II Lab</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1215</td>
<td>Principles of Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1225</td>
<td>Principles of Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2310</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 2315</td>
<td>Organic Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2320</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 2325</td>
<td>Organic Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 1010</td>
<td>Fundamentals of Biotechnology I Career Survey BB</td>
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</tr>
<tr>
<td>BTEC 2010</td>
<td>DNA Manipulation and Analysis</td>
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</tr>
<tr>
<td>BTEC 2020</td>
<td>Protein Purification and Analysis</td>
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<tr>
<td>BTEC 2030</td>
<td>Cell Culture Techniques</td>
<td>2</td>
</tr>
<tr>
<td>BTEC 2040</td>
<td>Advanced Nucleic Acid Laboratory</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements: 12 Credits

Additional credits to meet credit and upper-division requirements.

Graduation Requirements:
1. Complete the required minimum credit hours.
2. At least 30 credit hours in residence at UVU or satellite sites are required, with 10 hours earned during the last 45 hours.
3. A minimum of 40 credits must be upper-division (numbered 3000 or above).
4. Complete core courses with a grade of "C" or higher in each BTEC course and a "C-" or higher in all other core courses.
5. Achieve a minimum overall GPA of 2.0 with a minimum GPA of 2.25 in core courses.
6. Successful completion of at least one Global/Intercultural course.

Biotechnology, B.S.

Careers
1. Apply the process of science through the use of hypothesis testing in the design and completion of scientific experiments.
2. Critically evaluate scientific information.
3. Quantitatively analyze scientific data through graph interpretation, statistical analysis, and problem solving. Effectively communicate scientific information in both written and oral formats.
4. Explain fundamental biological concepts including molecular biology, biochemistry, cell biology, genetics, and evolution.

Related Careers
- Natural Sciences Managers
- Biological Scientists, All Other
- Biological Science Teachers, Postsecondary

Botany, B.S.

Requirements
Students interested in botany, or related fields, are strongly encouraged to earn at least a baccalaureate degree (BS). To be competitive in the job market additional post-baccalaureate education is suggested. The BS degree in Botany may be used for entry into a career or in preparation for graduate (Masters/PhD) or professional schools (medical, pharmacy etc.).

Total Program Credits: 120

Matriculation Requirements:
1. BIOL 1610 College Biology I BB with C- or higher and approval of Biology Department adviser.
Biology

General Education Requirements: 39 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Context CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
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</table>

Complete one of the following: 3 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
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<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
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</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
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<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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</table>

Complete the following: 2 Credits

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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
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</tr>
<tr>
<td>or PHIL 205G</td>
<td>Ethics and Values IH GI</td>
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</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
<td></td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
<td>2</td>
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</tbody>
</table>

Distribution Courses: 18 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1610</td>
<td>College Biology I BB</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1210</td>
<td>Principles of Chemistry I PP</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1220</td>
<td>Principles of Chemistry II PP</td>
<td>4</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts Distribution</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
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<td>3</td>
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Discipline Core Requirements: 63 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL 1615</td>
<td>College Biology I Laboratory</td>
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<tr>
<td>BIOL 1620</td>
<td>College Biology II</td>
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<tr>
<td>BIOL 1625</td>
<td>College Biology II Laboratory</td>
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<tr>
<td>BIOL 3400</td>
<td>Cell Biology</td>
<td>3</td>
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<tr>
<td>BIOL 3500</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4500</td>
<td>Principles of Evolution WE</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 492R</td>
<td>Professional Development</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 494R</td>
<td>Student Seminar WE</td>
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<tr>
<td>BIOL 497R</td>
<td>Biology Colloquium (0.5 cr, two required)</td>
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</tr>
<tr>
<td>BOT 2100</td>
<td>Flora of Utah BB</td>
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<tr>
<td>or BOT 2050</td>
<td>Field Botany BB (3)</td>
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<tr>
<td>BOT 2400</td>
<td>Plant Kingdom BB</td>
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<tr>
<td>BOT 4050</td>
<td>Plant Ecology</td>
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</tr>
<tr>
<td>BOT 4055</td>
<td>Plant Ecology Laboratory</td>
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<tr>
<td>BOT 4100</td>
<td>Plant Anatomy</td>
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</tr>
<tr>
<td>BOT 4200</td>
<td>Plant Systematics</td>
<td>3</td>
</tr>
<tr>
<td>BOT 4300</td>
<td>Native Trees and Shrubs of Utah</td>
<td>3</td>
</tr>
<tr>
<td>or BOT 4500</td>
<td>Introduction to Grasses (3)</td>
<td></td>
</tr>
<tr>
<td>BOT 4600</td>
<td>Plant Physiology WE</td>
<td>3</td>
</tr>
<tr>
<td>and BOT 4605</td>
<td>Plant Physiology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1215</td>
<td>Principles of Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1225</td>
<td>Principles of Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2310</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 2315</td>
<td>Organic Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>STAT 2040</td>
<td>Principles of Statistics QL</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 1060</td>
<td>Trigonometry QL (3)</td>
<td></td>
</tr>
<tr>
<td>and MATH 1210</td>
<td>Calculus I QL (5)</td>
<td></td>
</tr>
<tr>
<td>MICR 3450</td>
<td>General Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>and MICR 3455</td>
<td>General Microbiology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2010</td>
<td>College Physics I PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2015</td>
<td>College Physics I Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

Elective Requirements: 18 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional credits to meet credit and upper-division requirements.</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

Notes:

1. ENVT 2630 and ENVT 3630 are suggested electives. BOT 3340 cannot count for credit towards the Botany degree.

Graduation Requirements:

1. Complete the required minimum credit hours.
2. Completion of GE and specified departmental requirements.
3. If an AA or AS degree has been earned, a maximum of 64 of these credits may apply toward the BS.
4. At least 30 credit hours in residence at UVU or satellite sites are required, with 10 hours earned during the last 45 hours.
5. A minimum of 40 credits must be upper-division (numbered 3000 or above).
6. A minimum of 40 credits must be in the Biology Department (BIOL, BOT, BTEC, MICR, or ZOOL prefixes), 30 of which must be upper-division. A minimum of nine Biology Department credits must be taken at UVU.
7. Complete discipline core courses with a grade of “C-” or higher in each course.
8. Except for 490R Special Topics courses, a maximum cumulative total of 9 credits in any combination of upper division Departmentalcourses with an “R” designation may count toward graduation.
9. Achieve a minimum overall GPA of 2.0 with a minimum GPA of 2.25 in Biology Department courses.
10. Complete the appropriate application for graduation form.
11. Successful completion of at least one Global/Intercultural course.

Botany, B.S.

Careers

1. Demonstrate critical thinking and analytical skills.
2. Demonstrate knowledge of cellular and organismal biology (including plant anatomy, physiology and diversity), population biology, evolution and ecology (emphasizing organisms’ interdependency for survival and for quality of life in the biosphere).
3. 70% of the students successfully completing a Bachelors of Science in Biology and taking the GRE examination will score in the 50 percentile or better.
4. Biology graduates applying to post-graduate studies will be accepted into graduate or professionals schools, or if applying for employment in any area related to botany will be hired.
Related Careers

- Natural Sciences Managers
- Biological Scientists, All Other
- Biological Science Teachers, Postsecondary

Microbiology, B.S.

Requirements

Microbiology is the study of microorganisms, the smallest living things on earth, including bacteria, viruses, fungi, protozoa, and algae. While microorganisms are most known for their ability to cause disease, they are actually ubiquitous on earth and central to many of the essential life processes on this planet. The field of microbiology is a major contributor to human, animal, plant, and environmental health as well as central to the food/beverage, biotechnology, bioremediation, and pharmaceutical industries. This curriculum will examine the diverse roles of microorganisms and cover the fundamentals of microbial diversity, physiology, and genetics. Students will examine the roles and interactions of microbial populations in aquatic, terrestrial, human, animal, and plant systems.

A degree in microbiology can open the door to a wide variety of careers in different industries. Studying microbiology will prepare students to go to medical, dental, veterinary, or graduate school, and also provides them a highly employable career option in healthcare, industry, or government agencies. A degree in microbiology allows students to easily enter the workforce or continue on to a professional or graduate program.

Total Program Credits: 120

Matriculation Requirements:

BIOL 1610 College Biology I BB with C- or higher and approval of Biology Department advisor.

General Education Requirements: 39 Credits

- ENGL 1010 Introduction to Academic Writing CC (3)
- or ENGH 1005 Literacies and Composition Across Contexts CC (5)
- ENGL 2010 Intermediate Academic Writing CC (3)
- MATH 1050 College Algebra QL (4)
- or MATH 1055 College Algebra with Preliminaries QL (5)

Complete one of the following: 3

- HIST 2700 US History to 1877 AS (3)
- and HIST 2710 US History since 1877 AS (3)
- HIST 1700 American Civilization AS (3)
- HIST 1740 US Economic History AS (3)
- POLS 1000 American Heritage SS (3)
- POLS 1100 American National Government AS (3)

Complete the following:

- PHIL 2050 Ethics and Values IH (3)
- PHIL 205G Ethics and Values IH GI
- HLTH 1100 Personal Health and Wellness TE (2)
- or EXSC 1097 Fitness for Life TE (2)

Distribution Courses:

- BIOL 1610 College Biology I BB (4)
- CHEM 1210 Principles of Chemistry I PP (4)
- CHEM 1220 Principles of Chemistry II PP (4)
- CHEM 1215 Principles of Chemistry I Laboratory (1)
- CHEM 1225 Principles of Chemistry II Laboratory (1)
- PHYS 2010 College Physics I PP (4)
- PHYS 2015 College Physics I Lab (1)
- CHEM 1215 Principles of Chemistry I Laboratory (1)
- and CHEM 1225 Principles of Chemistry II Laboratory (1)
- CHEM 2310 Organic Chemistry I (4)
- CHEM 2315 Organic Chemistry I Laboratory (1)
- CHEM 2320 Organic Chemistry II (4)
- CHEM 2325 Organic Chemistry II Laboratory (1)
- CHEM 1100 Survey of Calculus QL (4)

Elective Requirements: 28 Credits

Choose a minimum of 18 credits from: (Upper division courses are encouraged to meet upper division credit requirements)

- MICR 3200 Emerging and Re Emerging Diseases and Zoonoses (3)
- MICR 4100 Parasitology (4)
- MICR 4200 Microbiomes (3)
- MICR 4300 Pathogenic Microbiology (4)
- MICR 4450 Immunology (3)
- MICR 4455 Immunology Laboratory (1)
- MICR 4500 Virology (3)
- MICR 4505 Applied Virological Methods (3)
- MICR 4600 Arthropod-Borne Pathogens (3)
- MICR 490R Special Topics in Microbiology (1)
- BIOL 3400 Cell Biology (3)
- BIOL 3405 Cell Biology Laboratory (1)
- BIOL 3550 Molecular Biology (3)
- BIOL 3555 Experiments in Molecular Biology (1)
Biology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 4550</td>
<td>Molecular Evolution and Bioinformatics WE (3)</td>
</tr>
<tr>
<td>BTEC 1010</td>
<td>Fundamentals of Biotechnology I Career Survey BB (3)</td>
</tr>
<tr>
<td>BTEC 2010</td>
<td>DNA Manipulation and Analysis (3)</td>
</tr>
<tr>
<td>BTEC 2020</td>
<td>Protein Purification and Analysis (3)</td>
</tr>
<tr>
<td>BTEC 2030</td>
<td>Cell Culture Techniques (2)</td>
</tr>
<tr>
<td>BTEC 2040</td>
<td>Advanced Nucleic Acid Laboratory (3)</td>
</tr>
<tr>
<td>BOT 3500</td>
<td>Mycology (4)</td>
</tr>
<tr>
<td>BOT 4430</td>
<td>Plant Pathology (3)</td>
</tr>
<tr>
<td>CHEM 3020</td>
<td>Environmental Chemistry (3)</td>
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<tr>
<td>CHEM 3025</td>
<td>Environmental Chemistry Laboratory (1)</td>
</tr>
<tr>
<td>ENVT 1270</td>
<td>Environmental Microbiology (3)</td>
</tr>
</tbody>
</table>

Choose 6 credits from:

- MICR 489R Student Research (1-4)
- BIOL 3100 Introduction to Data Analysis for Biologists (3)
- BIOL 369R Introduction to Undergraduate Research (1)
- BIOL 4300 Bioinformatics and Genome Analysis (4)

Choose 4 credits from BIOL, BOT, BTEC, ZOOL, or CHEM

Graduation Requirements:

1. Complete the required minimum credit hours.
2. If an AA or AS degree has been earned, a maximum of 64 of these credits may apply toward the BS.
3. At least 30 credit hours in residence at UVU or satellite sites are required, with 10 hours earned during the last 45 hours.
4. A minimum of 40 credits must be upper-division (numbered 3000 or above).
5. A minimum of 40 credits must be in the Biology Department (BIOL, BOT, BTEC, MICR, or ZOOL prefixes), 30 of which must be upper-division. A minimum of nine Department credits must be taken at UVU.
6. Except for 490R Special Topics courses, a maximum cumulative total of 13 credits in any combination of upper division Departmental courses with an "R" designation may count toward graduation.
7. Complete Biology Department core courses with a grade of "C-" or higher in each course.
8. Achieve a minimum overall GPA of 2.0 with a minimum GPA of 2.25 in biology department courses.
9. Complete the appropriate application for graduation form.
10. Successful completion of at least one Global/Intercultural course.

Footnotes:

1 Upper division is suggested to meet upper division requirements

Microbiology, B.S.

Careers

1. Apply the process of science through the use of hypothesis testing in the design and completion of scientific experiments
2. Critically evaluate scientific information
3. Quantitatively analyze scientific data through graph interpretation, statistical analysis, and problem solving
4. Effectively communicate scientific information in both written and oral formats.
5. Explain fundamental microbiological concepts including microbial genetics and molecular biology, ecology and environmental microbiology, and physiology and biochemistry

Related Careers

- Natural Sciences Managers
- Microbiologists
- Biological Science Teachers, Postsecondary
Business Graduate Programs

Master of Business Administration Graduate Program

The Master of Business Administration Graduate Program is in the Woodbury School of Business. To find the most up-to-date information, including Program Learning Outcomes for the Master of Business Administration Graduate Program, visit their website.

Master of Business Administration Graduate Program

FACULTY
- BAILEY, James Professor
- CHAN, Leo Associate Professor
- CIESLEWICZ, Joshua Associate Professor
- COX, Vaughn Professional in Residence
- HELQUIST, Joel Associate Professor
- HUFF, Steven Associate Professor
- MORTENSEN, James Professional In Residence
- OLIVEIRA, Andre Associate Professor
- PETERSON, Jeffrey Associate Professor
- ROBINSON, Peter B. Professor
- SMITH, Kevin Professor

Course Descriptions

Accounting.......................................................... 525
Economics.......................................................... 644
Finance............................................................... 704
Legal Studies......................................................... 757
Business Management......................................... 771
Marketing............................................................ 778

Degrees & Programs

Finance, Graduate Certificate

Requirements

The Woodbury School of Business MBA program offers a Graduate Certificate in Finance that provides an introduction to the global securities market and its role in capital formation, wealth-creation, economic development, risk mitigation, wealth management, and other finance-related goals. Courses focus on international corporate finance transactions and the currency implications of financial statement translations. Bloomberg Terminals are used extensively for company and industry analyses.

Total Program Credits: 9

Matriculation Requirements:

1. Application for admission to the Graduate Certificate Program in Finance with application fee.
2. A bachelor’s degree from a regionally accredited college/university, a nationally accredited program, or the international equivalent.
3. A 3.0 cumulative undergraduate GPA or a 3.0 GPA calculated on the last 60 semester hours (90 quarter hours) of undergraduate work.
4. Acceptance of graduate certificate program student status offers is valid only for the semester in the offer. Applicants who do not begin attendance during the semester in their admissions offers must reapply and pay the application fees before the applicable semester deadline. At the graduate certificate program’s discretion, graduate certificate programs may defer enrollment if students apply for a deferment before the end of the semester for which they were admitted.

Graduation Requirements:

2. Overall GPA of 3.0 or higher required in graduate certificate courses with no grade lower than a "C" in graduate certificate courses.
3. Residency hours — minimum of 6 credit hours through course attendance at UVU.
4. Graduate certificate coursework shall be completed within a period of six years.
   a. (Note: See Policy 524, Section 4.3.3).

Finance, Graduate Certificate

CAREERS

1. Analyze the three primary financial statements, including income statement, balance sheet and cash flow statement.
2. Apply financial concepts into an international perspective.
3. Describe key aspects of the global securities market and its role in capital formation, wealth-creation, economic development, risk mitigation, wealth management, and other finance-related goals.

Related Careers

- Chief Executives
- General and Operations Managers
- Financial Managers
- Budget Analysts
- Credit Analysts
- Financial Analysts
- Personal Financial Advisors
- Loan Officers
- Financial Specialists, All Other
- Business Teachers, Postsecondary

Healthcare Management, Graduate Certificate

Requirements

The Graduate Certificate in Healthcare Management is designed for professionals who want to enhance their proficiency and breadth of healthcare knowledge. It provides individuals with an understanding of the context, management, and issues for healthcare organizations. It prepares students for a career in a healthcare environment by providing additional management skills and knowledge, including healthcare systems, healthcare policies, and healthcare population management affecting the healthcare delivery system.

Total Program Credits: 9

Matriculation Requirements:

Application for admission:

1. Application for admission to the Graduate Certificate Program in Healthcare Management with application fee.
Business Graduate Programs

2. A bachelor's degree from a regionally accredited college/university, a nationally accredited program, or the international equivalent.
3. A 3.0 cumulative undergraduate GPA or a 3.0 GPA calculated on the last 60 semester hours (90 quarter hours) of undergraduate work.
4. Acceptance of graduate certificate program student status offers is valid only for the semester in the offer. Applicants who do not begin attendance during the semester in their admissions offers must reapply and pay the application fees before the applicable semester deadline. At the graduate certificate program's discretion, graduate certificate programs may defer enrollment if students apply for a deferment before the end of the semester for which they were admitted.

Discipline Core Requirements: 9 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 6300</td>
<td>Healthcare Systems</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 6310</td>
<td>Healthcare Policy</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 6320</td>
<td>Population Health Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

2. Overall GPA of 3.0 or higher required in graduate certificate courses with no grade lower than a "C" in graduate certificate courses.
3. Residency hours -- minimum of 6 credit hours through course attendance at UVU.
4. Graduate certificate coursework shall be completed within a period of six years.
   a. (Note: See Policy 524, Section 4.3.3).

Healthcare Management, Graduate Certificate

Careers

1. Analyze healthcare trends to understand patient's needs.
2. Describe the budgeting, financial reporting, and control requirements of healthcare under public and business policies.
3. Apply techniques using managerial epidemiology, biostatistics, political and economic analysis, public health initiatives.
4. Demonstrate knowledge of the U.S. healthcare industry and its delivery systems, including innovations in how healthcare innovates.

Related Careers

Management, Graduate Certificate

Requirements

The Woodbury School of Business MBA program offers a Graduate Certificate in Management that examines the strategic needs of any organization and how the function of information system supports operations. Utilizes advanced topics in operations research that develop decision-making processes for complex organizations and systems. Identifies creative methods to analyze problems, develop alternative decision-making strategies, and optimize business and organization processes.

Total Program Credits: 9

Matriculation Requirements:

Application for admission:
1. Application for admission to the Graduate Certificate Program in Management with application fee.
2. A bachelor's degree from a regionally accredited college/university, a nationally accredited program, or the international equivalent.

Marketing, Graduate Certificate

Requirements

The Woodbury School of Business MBA program offers a Marketing Graduate Certificate that teaches conceptual frameworks and analytical tools for marketing decision-making from a cross-functional and strategic orientation. Focuses on understanding user needs, forecasting and planning, solution design, managing adoption, and communicating value. Utilizes research tools such as survey design, experimentation, interviewing, and analytics to collect and analyze data. Focuses on the practice of advanced marketing management topics including brand
Related Careers

- Advertising and Promotions Managers
- Marketing Managers
- Sales Managers
- Market Research Analysts and Marketing Specialists
- Business Teachers, Postsecondary
# Business Graduate Programs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 6310</td>
<td>Healthcare Policy (3)</td>
</tr>
<tr>
<td>MGMT 6300</td>
<td>Healthcare Systems (3)</td>
</tr>
<tr>
<td>MGMT 6320</td>
<td>Population Health Management (3)</td>
</tr>
<tr>
<td>MGMT 6440</td>
<td>Advanced Project Management</td>
</tr>
<tr>
<td>MGMT 6450</td>
<td>Operations Management (3)</td>
</tr>
<tr>
<td>MGMT 6470</td>
<td>Organization Information Technologies (3)</td>
</tr>
<tr>
<td>MGMT 6510</td>
<td>Information Systems and Project Management (3)</td>
</tr>
<tr>
<td>MGMT 6910</td>
<td>Designing Business (1.5)</td>
</tr>
<tr>
<td>FIN 6130</td>
<td>Financial Statement Analysis and Modeling (3)</td>
</tr>
<tr>
<td>FIN 6160</td>
<td>International Financial Management (3)</td>
</tr>
<tr>
<td>FIN 6170</td>
<td>Investment Analysis and Portfolio Analysis (3)</td>
</tr>
<tr>
<td>MKTG 6400</td>
<td>Technology Marketing and Customer Experience</td>
</tr>
<tr>
<td>MKTG 6620</td>
<td>Marketing Research and Analytics (3)</td>
</tr>
<tr>
<td>MKTG 6640</td>
<td>Brand/Product/Services Management (3)</td>
</tr>
<tr>
<td>MKTG 6660</td>
<td>Marketing Channels and Communications (3)</td>
</tr>
<tr>
<td>MKTG 6760</td>
<td>Applied Business Research (3)</td>
</tr>
<tr>
<td>MKTG 6720</td>
<td>Creativity and Innovative Problem Solving (1.5)</td>
</tr>
</tbody>
</table>

To receive a Finance Graduate Certificate, complete FIN 6130, FIN 6160 and FIN 6170
To receive a Tech Management Graduate Certificate, complete MGMT 6440, MGMT 6470 and MKTG 6400
To receive a Management Graduate Certificate, complete MGMT 6740, MGMT 6510 and MGMT 6760
To receive a Marketing Graduate Certificate, complete MKTG 6620, MKTG 6600, MKTG 6640 and MKTG 6660
To receive a Healthcare Management Graduate Certificate, complete MGMT 6300, MGMT 6310 and MGMT 6320

**Graduation Requirements:**
1. Completion of 36 hours of approved credit with no grade lower than a "C" as described in this program.
2. Graduates may not transfer more than ten hours into this MBA program, preferably from an AACSB accredited institution. All transfer courses will be reviewed by a graduate committee managed by the Woodbury School of Business.
3. A minimum cumulative GPA of 3.0 or higher must be maintained within program.

**Master of Business Administration, M.B.A. Careers**
1. Graduates will be able to express their knowledge and ideas appropriately in writing and through verbal presentation.
2. Graduates will be able to utilize appropriate procedures, frameworks, models, and experience to gain knowledge, solve problems, and make appropriate decisions based on various informational sources such as data, written and verbal communication, process analysis, and creative thinking.
3. Graduates will have a functional and integrated knowledge of basic general business concepts and disciplines.
4. Graduates will be aware of their responsibility to behave ethically in their professional lives (e.g., clients, customers, employers, society, profession, environment, and community).
5. Graduates will have a global perspective and understand cultural differences.
6. Graduates will apply business processes to developing solutions for realistic problems both in the classroom and/or the larger community.

**Related Careers**
- Chief Executives
- General and Operations Managers
- Sales Managers
- Administrative Services Managers
- Industrial Production Managers
- Transportation, Storage, and Distribution Managers
- Construction Managers
- Social and Community Service Managers
- Managers, All Other
- Cost Estimators
- Management Analysts
- Business Teachers, Postsecondary

## Technology Management, Graduate Certificate

**Requirements**
The Technology Management Graduate Certificate is designed for professionals who want to enhance technology skills to become proficient in creating, managing, and using technology to accomplish strategic goals while expanding leadership skills in forecasting, business casedevlopment, and strategic alliances in technology.

**Total Program Credits:** 9

**Matriculation Requirements:**

**Application for admission:**
1. Application for admission to the Graduate Certificate Program in Technology Management with application fee.
2. A bachelor's degree from a regionally accredited college/university, a nationally accredited program, or the international equivalent.
3. A 3.0 cumulative undergraduate GPA or a 3.0 GPA calculated on the last 60 semester hours (90 quarter hours) of undergraduate work.
4. Acceptance of graduate certificate program student status offers is valid only for the semester in the offer. Applicants who do not begin attendance during the semester in their admissions offers must reapply and pay the application fees before the applicable semester deadline. At the graduate certificate program's discretion, graduate certificate programs may defer enrollment if students apply for a deferment before the end of the semester for which they were admitted.

**Discipline Core Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 6440</td>
<td>Advanced Project Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 6470</td>
<td>Organization Information Technologies</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 6400</td>
<td>Technology Marketing and Customer Experience</td>
<td>3</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**
2. Overall GPA of 3.0 or higher required in graduate certificate courses with no grade lower than a "C" in graduate certificate courses.
3. Residency hours -- minimum of 6 credit hours through course attendance at UVU.
4. Graduate certificate coursework shall be completed within a period of six years.
   a. (Note: See Policy 524, Section 4.3.3).

Technology Management, Graduate Certificate

<table>
<thead>
<tr>
<th>Careers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Manage technology projects and programs that further business goals and objectives.</td>
</tr>
<tr>
<td>2. Assess a company's information technology infrastructure and core business needs.</td>
</tr>
<tr>
<td>3. Evaluate recommendations for project implementation changes.</td>
</tr>
<tr>
<td>4. Evaluate technologies for implementation to most effectively meet a business's needs.</td>
</tr>
</tbody>
</table>

Related Careers

- Computer and Information Systems Managers
- Database Architects
- Computer Programmers
- Computer Science Teachers, Postsecondary
Chemistry

Chemistry

The Chemistry department is in the College of Science. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Chemistry department, visit their website.

Chemistry department

DEPARTMENT CHAIR
HALLING, Merrill Associate Professor

FACULTY
BOND, Calvin A. Associate Professor
CHAMBERLAND, Stephen Associate Professor
CHOCKALINGHAM KASI VISWANATH, Lakshmi Associate Professor
GOLDFARB, Nathan E. Assistant Professor
HALLING, Merrill Associate Professor
HAM, Young W. Associate Professor
HEIDER, Emily Assistant Professor
HERRON, Stevens Lecturer
HORN, Matthew Associate Professor
LARICHEVA, Elena Assistant Professor
ROCKS, Sally Assistant Professor
SHURTLEFF, James K. Associate Professor
THULIN, Craig Professor
WATHEN, Mark D. Associate Professor
WHITE, Lilia Lecturer
WILSON, Bruce E. Associate Professor
YU, Ming Associate Professor

Course Descriptions

Chemistry..................................................................................................................................580

Degrees & Programs

Chemistry, Minor

Requirements

The minor in chemistry provides students with a broad introduction to general, organic, and analytical chemistry. The minor may be used to develop interdisciplinary and applied skills in chemistry and to learn how to communicate scientific ideals and knowledge about chemistry.

Total Program Credits: 27

Matriculation Requirements:
1. Admitted to a bachelor degree program at UVU.

Discipline Core Requirements: 24 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1210</td>
<td>Principles of Chemistry I PP</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1220</td>
<td>Principles of Chemistry II PP</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1215</td>
<td>Principles of Chemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1225</td>
<td>Principles of Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2310</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 2320</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
</tbody>
</table>

Elective Requirements:

Any upper-division chemistry class numbered above 3000 with a minimum of 3 credit hours

Graduation Requirements:

1. Complete all courses with a minimum grade of "C-" or better.

Chemistry, Minor

Careers

1. Recall, integrate, and apply essential core information about the key components of chemistry
2. Qualitatively and quantitatively interpret scientific data
3. Convey scientific ideas and knowledge clearly and professionally in a written format
4. Demonstrate key laboratory skills and understanding of the laboratory safety

Related Careers

- Natural Sciences Managers
- Chemists
- Chemistry Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education

Chemistry - Biochemistry Emphasis, B.S.

Requirements

Biochemistry combines the study of biology with organic and inorganic chemistry as applied to topics such as enzymology, genetics, toxicology, pharmacology, food science, and medicine. Students with this degree may pursue graduate study or work in the field of biotechnology or in one of the many related areas or be eligible for many employment opportunities in chemistry and biology.

Total Program Credits: 120

Matriculation Requirements:
To matriculate into the Chemistry degree, students must have adviser approval, and completed CHEM 1210, CHEM 1220, CHEM 1250, and CHEM 1260 all with a C- or higher.

General Education Requirements: 39 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1005</td>
<td>Literacies and Composition Across Context CC (5.0)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1210</td>
<td>Calculus I QL</td>
<td>4</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3.0)</td>
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</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3.0)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3.0)</td>
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<td>POLS 1100</td>
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Complete the following: 3

- **PHIL 2050** Ethics and Values IH
- or **PHIL 205G** Ethics and Values IH GI
- or **PHIL 205H** Ethics and Values IH
- **HLTH 1100** Personal Health and Wellness TE (2.0)
- or **EXSC 1097** Fitness for Life TE 2

**Distribution Courses:**

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**Discipline Core Requirements:** 41 Credits

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<td>CHEM 1250</td>
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<td>CHEM 1260</td>
<td>Chemistry Cornerstone- Ethics</td>
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<td>CHEM 2315</td>
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<td>CHEM 2320</td>
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**Emphasis Requirements:** 40 Credits

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<td>CHEM 3065</td>
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<td>CHEM 3100</td>
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<td>CHEM 3115</td>
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<td>CHEM 3020</td>
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<td>CHEM 3300</td>
<td>Biomolecular Modeling and Simulations (4.0)</td>
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<td>BIOL 4450</td>
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<td>ZOOL 4780</td>
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**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.0 (C) or above with a minimum of 2.25 in Major.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. A minimum of 54 credit hours must be in the major with a minimum of 20 credits taken at UVU. A minimum of 28 chemistry credits must be upper-division.
6. Complete all chemistry and physics courses with a minimum grade of "C-" or better.
7. Successful completion of at least one Global/Intercultural course.
Chemistry

Footnote:
1-To be taken with CHEM 1215 Principles of Chemistry I Laboratory
2-To be taken with CHEM 1225 Principles of Chemistry II Laboratory
3-To be taken with CHEM 1210 Principles of Chemistry I
4-To be taken with CHEM 1220 Principles of Chemistry II

Chemistry - Biochemistry Emphasis, B.S.

Careers

1. Students will demonstrate progress along their desired career path.
2. Students are prepared to enter the chemistry workplace and postgraduate education.
3. Understand how physical scientists think and form judgments about the physical world.
4. Convey scientific ideas and knowledge clearly and professionally, in both written and oral forms.
5. Demonstrate the ability to apply chemical principles and laboratory skills to solve scientific problems.
6. Students will demonstrate knowledge of the unifying principles of chemistry.

Related Careers

• Natural Sciences Managers
• Chemists
• Chemistry Teachers, Postsecondary
• Secondary School Teachers, Except Special and Career/Technical Education

Chemistry - Professional Chemistry Emphasis, B.S.

Requirements

This bachelor's degree in professional chemistry prepares a student for employment as a chemist. It also prepares a student for further study in a graduate degree or professional program. This degree is designed to meet American Chemical standards for a bachelor degree. Job opportunities for students with this degree are very good. Students with this degree can have careers in test laboratories, government laboratories, hospital laboratories, research and development, quality control, manufacturing, and many other areas.

In obtaining this degree, students will learn how to:
Use modern scientific instruments and interpret results
Apply principles used in chemistry to solve everyday problems
Think analytically
Use problem solving skills
Categorize information
Apply learned math skills
Develop laboratory skills

Total Program Credits: 120

Matriculation Requirements:
To matriculate into the Chemistry degree, students must have adviser approval, and completed CHEM 1210, CHEM 1220, CHEM 1250, and CHEM 1260 all with a C- or higher.

General Education Requirements: 40 Credits

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Context CC (5.0)</td>
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<td>ENGL 2010</td>
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Complete one of the following: 3

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Distribution Courses:

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<td>Social/Behavioral Science</td>
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Discipline Core Requirements: 41 Credits

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Emphasis Requirements: 40 Credits

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Graduation Requirements:
1. Completion of a minimum of 120 semester credits with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.0 (C) or above with a minimum of 2.25 in Major.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. A minimum of 54 credit hours must be in the major with a minimum of 20 credits taken at UVU. A minimum of 28 chemistry credits must be upper-division.

Footnote:
1 To be taken with CHEM 1215 Principles of Chemistry I Laboratory
2 To be taken with CHEM 1225 Principles of Chemistry II Laboratory
3 To be taken with CHEM 1210 Principles of Chemistry I PP
4 To be taken with CHEM 1220 Principles of Chemistry II PP

Chemistry - Professional Chemistry Emphasis, B.S. Careers
1. Students will demonstrate progress along their desired career path.
2. Students are prepared to enter the chemistry workplace and postgraduate education.
3. Understand how physical scientists think and form judgments about the physical world.
4. Convey scientific ideas and knowledge clearly and professionally, in both written and oral forms.
5. Demonstrate the ability to apply chemical principles and laboratory skills to solve scientific problems.
6. Students will demonstrate knowledge of the unifying principles of chemistry.

Related Careers
- Natural Sciences Managers
- Chemists
- Chemistry Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education

Chemistry Education, B.S. Requirements
The degree in chemistry education prepares a student to teach chemistry in secondary education. Students that complete this degree receive endorsements to teach chemistry. Completion of this program is dependent upon being accepted into the Secondary Education program through the School of Education. There is a great demand for teachers in chemistry and employment opportunities are excellent.

In obtaining this degree, students will learn how to:
- Use modern scientific instruments and interpret results
- Apply principles used in chemistry to solve everyday problems
- Think analytically
- Use problem solving skills
- Categorize information
- Apply learned math skills
- Develop laboratory skills

Total Program Credits: 120

Matriculation Requirements:
1. Students are admitted directly to the Baccalaureate degree program in Chemistry Education upon acceptance to the Secondary Education Program.
2. Students must obtain the departmental Advisor's signature on an approved program plan prior to enrollment in their second semester of study.
Secondary Education Requirements:
1. ENGL and MATH QL courses must have a grade C or higher.
2. GPA of 3.0 or higher with no grade lower than a C in content area courses.
3. Completion of all General Education requirements and 70% of content area courses.
4. Pass LiveScan Criminal Background Check.

General Education Requirements: 38 Credits
- ENGL 1010 Introduction to Academic Writing CC 3
  or ENGH 1005 Literacies and Composition Across Context CC (5.0)
- ENGL 2010 Intermediate Academic Writing CC 3
- MATH 1210 Calculus I QL 4

Complete one of the following: 3
- HIST 1700 American Civilization AS (3.0)
- HIST 2700 US History to 1877 AS (3.0)
  and HIST 2710 US History since 1877 AS (3.0)
- HIST 1740 US Economic History AS (3.0)
- POLS 1000 American Heritage AS (3.0)
- POLS 1100 American National Government AS (3.0)

Complete the following:
- PHIL 2050 Ethics and Values IH 3
- HLTH 1100 Personal Health and Wellness TE (2.0)
  or EXSC 1097 Fitness for Life TE 2

Distribution Courses:
- Biology 3
  - CHEM 1210 Principles of Chemistry I PP 1 4
  - CHEM 1220 Principles of Chemistry II PP 2 4
- Humanities 3
  - Fine Arts 3
  - Social/Behavioral Science 3

Discipline Core Requirements: 77 Credits
Chemistry Discipline Core Courses:
- CHEM 1215 Principles of Chemistry I Laboratory 3 1
- CHEM 1225 Principles of Chemistry II Laboratory 4 1
- CHEM 1250 Chemistry Cornerstone- Research and Careers 1
- CHEM 2310 Organic Chemistry I 4
- CHEM 2320 Organic Chemistry II 4
- CHEM 2315 Organic Chemistry I Laboratory 1
- CHEM 2325 Organic Chemistry II Laboratory 1
- CHEM 3000 Analytical Chemistry 2
- CHEM 3005 Analytical Chemistry Laboratory 2
- CHEM 3060 Physical Chemistry I WE 4
- CHEM 3065 Physical Chemistry I Lab (1) 4
- CHEM 3600 Biological Chemistry 3
- MATH 1220 Calculus II 4
- PHYS 2210 Physics for Scientists and Engineers I PP 4

Education Discipline Core Courses: Must be completed with a B- or higher
- EDSC 1010 Introduction to Education 2
- EDSC 3000 Educational Psychology 3
- EDSC 325G Equitable Technology Integration GI 2
- EDSP 340G Exceptional Students GI 2
- EDSC 4200 Classroom Management I 2
- EDSC 4250 Classroom Management II 2
- EDSC 4440 Content Area Literacies 3
- EDSC 445G Multicultural Instruction ESL GI 3
- EDSC 455G Secondary Curriculum Instruction and Assessment GI 3
- EDSC 4850 Student Teaching Secondary 8
- EDSC 4990 Teacher Performance Assessment Project WE 2

Chemistry Elective Requirement: 5
Complete a minimum of 5 credit hours from the following list
- CHEM 3020 Environmental Chemistry (3)
- CHEM 3025 Environmental Chemistry Laboratory (1)
- CHEM 3100 Advanced Inorganic Chemistry (4)
- CHEM 3115 Advanced Inorganic Chemistry Lab (1)
- CHEM 3605 Biological Chemistry Lab (1)
- CHEM 3800 Energy Use on Earth (3)
- CHEM 4000 Instrumental Analysis WE (2)
- CHEM 4005 Instrumental Analysis Laboratory (2)
- CHEM 4600 Structure Determination (3)
- CHEM 4605 Structure Determination Laboratory (1)
- CHEM 495R Advanced Topics in Organic Chemistry (3)
- CHEM 496R Special Topics in Chemistry (1-4)

Graduation Requirements:
1. Completion of a minimum of 120 semester credits with a minimum of 40 upper-division credits.
2. Overall Grade of 3.0 (B) or above with no grade lower than a C or better in major required content courses and no grade lower than a B- in Licensure and Methods courses.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. A minimum of 52 credit hours must be in the major with a minimum of 20 credits taken at UVU. A minimum of 24 chemistry and physics credits must be upper-division.
6. Complete all chemistry courses with a minimum grade of "C-" or better.
7. Successful completion of at least one Global/Intercultural course.

Footnote:
1-To be taken with CHEM 1215 Principles of Chemistry I Laboratory
2-To be taken with CHEM 1225 Principles of Chemistry II Laboratory
3-To be taken with CHEM 1210 Principles of Chemistry I PP
4-To be taken with CHEM 1220 Principles of Chemistry II PP

Chemistry Education, B.S.
Careers

1. Demonstrate an overall knowledge of the key concepts needed to teach Chemistry at the secondary education level.
2. Demonstrate skill and knowledge in science pedagogy.
3. Develop an understanding of the interaction between chemistry and society.
4. Demonstrate the ability to communicate effectively both verbally and in writing.

Related Careers

• Chemistry Teachers, Postsecondary
• Education Teachers, Postsecondary
• Middle School Teachers, Except Special and Career/Technical Education
• Secondary School Teachers, Except Special and Career/Technical Education
Clinical Mental Health Counseling Graduate Programs

Clinical Mental Health Counseling Graduate Program

The Clinical Mental Health Counseling Graduate Program is in the College of Humanities and Social Sciences. To find the most up-to-date information, including Program Learning Outcomes for the Clinical Mental Health Counseling Graduate Program, visit their website.

Clinical Mental Health Counseling Graduate Program

Course Descriptions

Clin Mental Health Counseling................................................................. 595
Communication

Communication

The Communication department is in the College of Humanities and Social Sciences. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Communication department, visit their website.

Communication department

DEPARTMENT CHAIR
MORIN, David T. Associate Professor

DIRECTOR-WOMEN'S BUSINESS LEADERSHIP INITIATIVE
HALL, Kelly Assistant Professor

FACULTY
ALLEN, Jordan Assistant Professor
AUSTIN, Brent Lecturer
BALLARD, Jessica Professional in Residence
BARNEY, Joshua Lecturer
BLEVINS, Maria Associate Professor
FARRAR, Steven Lecturer
FISHER, James Lecturer
FRITZ, Juliann Lecturer
GRECU, Natalie Assistant Professor
HALL, Kelly Assistant Professor
HANSON, Kimberly Lecturer
HERNANDEZ, Leandra Assistant Professor
LIANG, Jingdong Associate Professor
MCKASY, Meaghan Assistant Professor
MUNZ, Stevie M. Associate Professor
PAULY, Jessica A. Assistant Professor
RAWAT, Meghana Assistant Professor
RODRIGUEZ, Stephanie Lecturer
SANDERS, Farah Lecturer
SCOTT, David W. Professor

Course Descriptions

Communication 598

Degrees & Programs

Humanities and Social Sciences, A.A.

Requirements

The AA/AS in Humanities and Social Sciences is designed to (a) allow students to explore different majors and career paths within the humanities and social sciences, (b) provide a completion point for students who do not want to pursue a bachelor’s degree, and (c) facilitate transfer to another institution for students who would like to finish their bachelor’s degree elsewhere. The curriculum consists of 35 credits of general education, 12 credits of electives in the College of Humanities and Social Sciences, and 13 free electives from any college within the university.

Total Program Credits: 60

Graduation Requirements:

General Education Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
<td>3 (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
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</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Intergrated Algebra QL (6)</td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (3)</td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL</td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
</tr>
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</table>

Complete the following:

<table>
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</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2.0)</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
</tr>
</tbody>
</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>Discipline Core Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Any additional Humanities and Social Sciences Course 1000 or 2000 level with the following prefix: AIST, AMST, ANTH, ASL, BESC, CHIN, CHST, CINE, CLST, CNST, COMM, ENGL, FAMS, FREN, GER, GRK, HIST, HUM, IS, LATN, PHIL, POLS, PORT, PSY, RUS, SOC, SOSC, SPAN, SW 12

Elective Requirements: 13 Credits

Same foreign Language 8

Complete 5 credits in any course 1000 level and above 5
Communication

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above (departments may require a higher GPA).
3. Residency hours: minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. For the AA degree, completion of 8 credit hours of course work from one language.

**Humanities and Social Sciences, A.A.**

**Careers**

1. Discover connections among disciplines.
2. Develop critical thinking.
3. Demonstrate knowledge of human cultures and the physical and natural world as studied in humanities and social sciences.
4. Appropriately use the conventions associated with writing and speaking.

**Related Careers**

- Postsecondary Teachers, All Other

**Humanities and Social Sciences, A.S.**

**Requirements**

The AA/AS in Humanities and Social Sciences is designed to (a) allow students to explore different majors and career paths within the humanities and social sciences, (b) provide a completion point for students who do not want to pursue a bachelor's degree, and (c) facilitate transfer to another institution for students who would like to finish their bachelor's degree elsewhere. The curriculum consists of 35 credits of general education, 12 credits of electives in the College of Humanities and Social Sciences, and 13 free electives from any college within the university.

**Total Program Credits: 60**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5.0)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

| MAT 1030 | Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors) |
| MAT 1035 | Quantitative Reasoning with Integrated Algebra QL (6) |
| STAT 1040 | Introduction to Statistics (3) (recommended for Social Science majors) |
| STAT 1045 | Introduction to Statistics with Algebra (5.0) |
| MATH 1050 | College Algebra QL (4) (recommended for Business, Education, Science, and Health Professions majors) |
| MATH 1055 | College Algebra with Preliminaries QL (5) |
| MATH 1090 | College Algebra for Business QL (3) (recommended for Business majors) |

Complete one of the following: 3

| HIST 1700 | American Civilization AS (3.0) |

<table>
<thead>
<tr>
<th>Distribution Courses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
</tr>
</tbody>
</table>

**Discipline Core Requirements:** 12 Credits

Any additional Humanities and Social Sciences Course 1000 or 2000 level with the following prefix: AIST, AMST, ANTH, ASL, BESC, CHIN, CHST, CINE, CLST, CNST, COMM, ENGL, FAMS, FREN, GER, GRK, HIST, HUM, IS, LANG, LATN, PHIL, POLS, PORT, PSY, RUS, SOC, SOSC, SPAN, SW

| Elective Requirements: | 13 Credits |
| Complete 13 credits in any course 1000 level and above | |

**Graduation Requirements:**

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above (departments may require a higher GPA).
3. Residency hours: minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

**Humanities and Social Sciences, A.S.**

**Careers**

1. Discover connections among disciplines.
2. Develop critical thinking.
3. Demonstrate knowledge of human cultures and the physical and natural world as studied in humanities and social sciences.
4. Appropriately use the conventions associated with writing and speaking.

**Related Careers**

- Postsecondary Teachers, All Other

**Applied Communication, Minor**

**Requirements**

Programs of study in Communication at UVU offer a balance of analytic and applied approaches to study in the field. The department offers an expanding menu of beginning and advanced courses in mass communication, public relations, media studies, interpersonal communication, intercultural communication, international communication, organizational communication, and journalism.

**Total Program Credits: 18**
Communication

Discipline Core Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1020</td>
<td>Public Speaking HH</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1050</td>
<td>Introduction to Communication SS</td>
<td>3</td>
</tr>
<tr>
<td>COMM 3050</td>
<td>Theories of Communication and Culture WE</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements:

9 Credits

Complete 9 credits in the Communication department; 6 of those credits must be upper-division credits (3000-4000 level classes)

Graduation Requirements:

1. Completion of COMM courses with a C- or higher

Applied Communication, Minor

Careers

1. Foundational Knowledge: Students demonstrate knowledge of the field of communication and the meaning and purpose of communication at the individual, group, and societal level.
2. Students develop in-depth and critical thinking/professional skills.
3. Students apply knowledge and expertise to real-world situations and/or research questions.
4. Students develop an understanding of diversity and cultural perspectives in local, regional, and global society.

Related Careers

- Advertising and Promotions Managers
- Public Relations and Fundraising Managers
- Communications Teachers, Postsecondary
- Public Relations Specialists

Ethnic Studies, Minor

Requirements

Ethnic Studies is an interdisciplinary and intersectional study of differences and diverse connections. Such differences and connections include race, ethnicity, culture, nation, sexuality, and physical abilities that span humanities and social sciences. These studies re-frame and re-center conversations and knowledges about non-dominant histories in the United States and the world.

Total Program Credits: 18

Core Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHS 2500</td>
<td>Introduction to Ethnic Studies</td>
<td>3</td>
</tr>
<tr>
<td>ETHS 2510</td>
<td>Foundations of Ethnic Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose 12 credits from the following: (9 credits must be upper-division)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIST 180G</td>
<td>Introduction to American Indian Studies SS GI</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>ANTH 180G</td>
<td></td>
</tr>
<tr>
<td>ANTH 101G</td>
<td>Social Cultural Anthropology SS GI</td>
<td></td>
</tr>
</tbody>
</table>
Applied Communication, B.A.

Requirements
The BA/BS/Minor will give students the opportunity to earn a full major/ minor in the field of applied communication. This degree prepares students with the necessary skills to (a) examine a wide range of diverse issues, including the communication needs of organizations, effective social interaction, improvement of health care understandings or delivery, implementation of behavioral interventions, training to improve communication, and activist efforts to achieve social change, (b) methodological and (c) theoretical competence to address issues of applied communication, and (d) to practice oral, written, and critical thinking skills.

Total Program Credits: 120

General Education Requirements: 36 Credits
- ENGL 1010 Introduction to Academic Writing CC (3)
or
- ENGH 1005 Literacies and Composition Across Contexts CC (5)
- ENGL 2010 Intermediate Academic Writing CC (3)
- STAT 1040 Introduction to Statistics QL (3)
or
- STAT 1045 Introduction to Statistics with Algebra QL (5)

Complete one of the following:
- HIST 1700 American Civilization AS (3)
- HIST 2700 US History to 1877 AS (3)
and
- HIST 2710 US History since 1877 AS (3)
- HIST 1740 US Economic History AS (3)
- POLS 1000 American Heritage SS (3)
- POLS 1100 American National Government AS (3)

Complete the following:
- PHIL 2050 Ethics and Values IH (3)
- HLTH 1100 Personal Health and Wellness TE (2)
or
- EXSC 1097 Fitness for Life TE (2)

Distribution Courses:
- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities (Any Foreign Language 202G/2020 course) 4
- Fine Arts 3
- Social/Behavioral Science 3

Discipline Core Requirements: 36 Credits
- COMM 1020 Public Speaking HH (3)
- COMM 1050 Introduction to Communication SS (3)
- COMM 3020 Communication Research Methods WE (3)
- COMM 3050 Theories of Communication and Culture WE (3)
- COMM 319G Intercultural Communication Encounters GI (3)
- COMM 4930 Communication Capstone (3)
Total Program Credits: 120

thinking skills. of applied communication, and (d) to practice oral, written, and critical

improve communication, and activist efforts to achieve social change,
or delivery, implementation of behavioral interventions, training to
effective social interaction, improvement of health care understandings

diverse issues, including the communication needs of organizations,

students with the necessary skills to (a) examine a wide range of

minor in the field of applied communication. This degree prepares

The BA/BS/Minor will give students the opportunity to earn a full major/

Related Careers
• Advertising and Promotions Managers
• Public Relations and Fundraising Managers
• Communications Teachers, Postsecondary
• Public Relations Specialists

Applied Communication, B.A.

Graduation Requirements:
1. Completion of a minimum of 120 or more semester credits.
2. Overall grade point average of 2.0 (C) or above (departments may require a higher GPA).
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Completion of 16 credit hours of course work from one language to include the 1010, 1020, 2010, and 202G/2020 levels or transferred equivalents.
6. Completion of COMM courses with a C- or higher.
7. Successful completion of at least one Global/Intercultural course.

Elective Requirements: 48 Credits

One foreign language 12
Any courses numbered 1000 or higher; specific upper-division credits may be needed to fulfill the university’s upper-division requirement 36

Graduation Requirements:
1. Completion of a minimum of 120 or more semester credits.
2. Overall grade point average of 2.0 (C) or above (departments may require a higher GPA).
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Completion of 16 credit hours of course work from one language to include the 1010, 1020, 2010, and 202G/2020 levels or transferred equivalents.
6. Completion of COMM courses with a C- or higher.
7. Successful completion of at least one Global/Intercultural course.

Applied Communication, B.A.

Careers
1. Foundational Knowledge: Students demonstrate knowledge of the field of communication and the meaning and purpose of communication at the individual, group, and societal level.
2. Research Expertise: Students develop in-depth and critical thinking/professional skills.
3. Application of Foundational Knowledge and Research Expertise: Students apply knowledge and expertise to real-world situations and/or research questions.
4. Diversity and Cultural Perspectives: Students develop an understanding of diversity and cultural perspectives in local, regional, and global society.

Applied Communication, B.S.

Requirements
The BA/BS/Minor will give students the opportunity to earn a full major/ minor in the field of applied communication. This degree prepares students with the necessary skills to (a) examine a wide range of diverse issues, including the communication needs of organizations, effective social interaction, improvement of health care understandings or delivery, implementation of behavioral interventions, training to improve communication, and activist efforts to achieve social change, (b) methodological and (c) theoretical competence to address issues of applied communication, and (d) to practice oral, written, and critical thinking skills.

Total Program Credits: 120

Elective Requirements: 49 Credits

Any courses numbered 1000 or higher; specific upper-division credits may be needed to fulfill the university’s upper-division requirement

Graduation Requirements:
1. Completion of a minimum of 120 or more semester credits.
2. Overall grade point average of 2.0 (C) or above (departments may require a higher GPA).
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
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Applied Communication, B.S.

Careers
1. Foundational Knowledge: Students demonstrate knowledge of the field of communication and the meaning and purpose of communication at the individual, group, and societal level.
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4. Diversity and Cultural Perspectives: Students develop an understanding of diversity and cultural perspectives in local, regional, and global society.

Related Careers
- Advertising and Promotions Managers
- Public Relations and Fundraising Managers
- Communications Teachers, Postsecondary
- Public Relations Specialists

Public Relations and Strategic Communication, B.A.

Requirements
The BA/BS/Minor will give students the opportunity to earn a full major/minor in the field of public relations and strategic communication. This degree prepares students with the necessary skills to communicate (a) visually, (b) orally, and through the (c) written word in traditional and digital mediums, as demanded by the ever-changing nature of strategic communication and public relations.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>36 Credits</th>
</tr>
</thead>
<tbody>
<tr>
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<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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<td>STAT 1040 Introduction to Statistics QL</td>
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<tr>
<td>or STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
<td></td>
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</table>

Complete one of the following: 3
- HIST 1700 American Civilization AS (3)
- HIST 2700 US History to 1877 AS (3)
and
- HIST 2710 US History since 1877 AS (3)
- HIST 1740 US Economic History AS (3)
- POLS 1000 American Heritage SS (3)
- POLS 1100 American National Government AS (3)

Complete the following:
- PHIL 2050 Ethics and Values IH | 3 |
- HLTH 1100 Personal Health and Wellness TE (2)
| or EXSC 1097 Fitness for Life TE | 2 |

Distribution Courses:
- Biology | 3 |
- Physical Science | 3 |
- Additional Biology or Physical Science | 3 |
- Humanities (Any Foreign Language 202G/2020 course) | 4 |
- Fine Arts | 3 |
- Behavioral/Social Science | 3 |

Discipline Core Requirements: 18 Credits
- COMM 2300 Introduction to Public Relations and Strategic Communication | 3 |
- COMM 3530 Public Relations and Strategic Communication Writing | 3 |
- COMM 3020 Communication Research Methods WE | 3 |
- COMM 3050 Theories of Communication and Culture WE | 3 |
- COMM 3520 Public Relations and Strategic Communication Case Studies | 3 |
- COMM 4850 Public Relations and Strategic Communication Campaigns | 3 |

Elective Requirements: 64 Credits
- Complete 18 credits within the Communication Major, 9 must be at the 3000-4000 level | 18 |
- Complete 12 credits from one foreign language to include the 1010, 1020, and 2010 levels. | 12 |
- Any courses numbered 1000 or higher, specific upper-division credits may be needed to fulfill the university's upper-division requirement, completion of one G/I course is required. | 36 |

Graduation Requirements:
1. Completion of a minimum of 120 or more semester credits.
2. Overall grade point average of 2.0 (C) or above (departments may require a higher GPA).
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Completion of 16 credit hours of course work from one language to include the 1010, 1020, 2010, and 202G/2020 levels or transferred equivalents.
6. Completion of COMM courses with a C- or higher.
7. Successful completion of at least one Global/Intercultural course.

Public Relations and Strategic Communication, B.A. Careers
1. Students with Foundational Knowledge will have a 1) theoretical, and up-to-date understanding, of current research findings centered on the concepts, constructs, and principles discussed in the field of strategic communication and public relations. Researcher findings are often collected through diverse methodologies; therefore, students will (2) demonstrate an understanding of the methodologies and instruments used by both researchers and practitioners. These findings are written by a myriad of authors and disseminated through diverse channels, thus students will (3) become familiar with, and judiciously examine, both authoritative and non-credible sources of information in order to become a more information- literate individual. Finally, as Foundational Knowledge is always changing, students will 4) recognize the impermanent nature of knowledge claims in order to initiate and adapt to new approaches of communication.
2. In order to obtain Professional Skills, students will be able to (1) demonstrate competency in oral, written, visual, and nonverbal communication both individually and (2) in a team setting using the acquired skills gained from strategic communication and public relations courses. From these skills, students will be able to (3) create multimedia content designed to achieve specific objectives for organizations, while simultaneously targeting a diverse set of audiences in addition to (4) planning, managing, and executing strategic communication campaigns.
3. The Application of Foundational Knowledge and Professional Skills Learning Outcome incorporates several different points. First, students, by the time of graduation, should be able to use the critical thinking skills obtained from coursework and classroom instruction to analyze and evaluate strategic communication and public relations messages from a theoretical and applied perspective. Further, students should (2) be able to employ basic research skills to gather data, synthesize the findings into a cogent message, and evaluate their importance in relation to campaign objectives. In addition, students, by applying the foundational knowledge and professional skills gained, (3) will be able to adapt their messages, based on previous case studies and research findings, over the course of a strategic communication and public relations campaign.

4. Students with an understanding in Diversity and Cultural Perspectives will have the ability to (1) apply ethical principled learned via class work by (2) demonstrating their competency in critically analyzing ethical problems from multiple and diverse perspectives both individually and in a team-setting. Further, students should have the (3) ability to ability to examine, and acknowledge the situatedness of cultural experiences, conflicting opinions, and viewpoints on issues and ethical dilemmas when interacting with stakeholders. Finally, by graduation, students will be able to (4) reflect upon the interconnectedness of local, national, and global issues.

Related Careers
- Advertising and Promotions Managers
- Public Relations and Fundraising Managers
- Communications Teachers, Postsecondary
- Public Relations Specialists

Public Relations and Strategic Communication, B.S.

Requirements
The BA/BS/Minor will give students the opportunity to earn a full major/ minor in the field of public relations and strategic communication. This degree prepares students with the necessary skills to communicate (a) visually, (b) orally, and through the (c) written word in traditional and digital mediums, as demanded by the ever-changing nature of strategic communication and public relations.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC 3</td>
<td></td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC 3</td>
<td></td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL 3</td>
<td></td>
</tr>
<tr>
<td>or STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1700 American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740 US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000 American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100 American National Government AS (3)</td>
<td></td>
</tr>
<tr>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>PHIL 2050 Ethics and Values IH 3</td>
<td></td>
</tr>
</tbody>
</table>

Distribution Courses:
- HLTH 1100 Personal Health and Wellness TE (2)
- or EXSC 1097 Fitness for Life TE 2

Discipline Core Requirements: 18 Credits
- COMM 2300 Introduction to Public Relations and Strategic Communication 3
- COMM 3020 Communication Research Methods WE 3
- COMM 3520 Public Relations and Strategic Communication Case Studies 3
- COMM 3530 Public Relations and Strategic Communication Writing 3
- COMM 3050 Theories of Communication and Culture WE 3
- COMM 4850 Public Relations and Strategic Communication Campaigns 3

Elective Requirements: 67 Credits
- Complete 18 credits within the Communication Major, 9 must be at the 3000-4000 level 18
- Any courses numbered 1000 or higher, specific upper-division credits may be needed to fulfill the university's upper-division requirement, completion of one G/I course is required. 49

Graduation Requirements:
1. Completion of a minimum of 120 or more semester credits.
2. Overall grade point average of 2.0 (C) or above (departments may require a higher GPA).
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Completion of COMM courses with a C- or higher.
6. Successful completion of at least one Global/Intercultural course.

Public Relations and Strategic Communication, B.S. Careers
1. Students with Foundational Knowledge will have a 1) theoretical, and up-to-date understanding, of current research findings centered on the concepts, constructs, and principles discussed in the fields of strategic communication and public relations. Researcher findings are often collected through diverse methodologies; therefore, students will (2) demonstrate an understanding of the methodologies and instruments used by both researchers and practitioners. These findings are written by a myriad of authors and disseminated through diverse channels, thus students will (3) become familiar with, and judiciously examine, both authoritative and non-credible sources of information in order to become a more information-literate individual. Finally, as Foundational Knowledge is always changing, students will 4) recognize the impermanent nature of knowledge claims in order to initiate and adapt to new approaches of communication.
2. In order to obtain Professional Skills, students will be able to (1) demonstrate competency in oral, written, visual, and nonverbal communication both individually and (2) in a team setting using the acquired skills gained from strategic communication and public relations courses. From these skills, students will be able to (3) create multimedia content designed to achieve specific objectives for organizations, while simultaneously targeting a diverse set of audiences in addition to (4) planning, managing, and executing strategic communication campaigns.

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4. Students with an understanding in Diversity and Cultural Perspectives will have the ability to (1) apply ethical principled learned via class work by (2) demonstrating their competency in critically analyzing ethical problems from multiple and diverse perspectives both individually and in a team-setting. Further, students should have the (3) ability to understand, examine, and acknowledge the situatedness of cultural experiences, conflicting opinions, and viewpoints on issues and ethical dilemmas when interacting with stakeholders. Finally, by graduation, students will be able to (4) reflect upon the interconnectedness of local, national, and global issues.

Related Careers
- Advertising and Promotions Managers
- Public Relations and Fundraising Managers
- Communications Teachers, Postsecondary
- Public Relations Specialists
The Computer Science department is in the Scott M. Smith College of Engineering. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Computer Science department, visit their website.

### Computer Science

**DEPARTMENT CHAIR**

RUDOLPH, George Associate Professor

**FACULTY**

ALDOUS, Peter Assistant Professor
DURNEY, Brian Associate Professor
HARRISON, Neil B. Professor
JENSON, Kenneth Lecturer
KNAEBLE, Brian Associate Professor
KNUTSON, Charles D. Associate Professor
MORTENSEN, Gregory Lecturer
RUDOLPH, George Associate Professor
SAJAL, Sayeed Assistant Professor
SANATI MEHRIZY, Reza Professor
SHARP, Craig Lecturer
TANG, Jingpeng Associate Professor
TENG, Abraham Associate Professor
THACKERAY, Lynn Roy Sr. Lecturer
WAGSTAFF, David Lecturer
ZENG, Larry Professor

### Course Descriptions

**Computer Science**

**Course Descriptions**

Computer Science

Degrees & Programs

**Computer Science - Computer Engineering Emphasis, A.A.S.**

**Requirements**

The program introduces the student to a wide range of computer systems hardware, software, device drivers and peripheral devices.

Total Program Credits: 63

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>13 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A minimum of 16 credits of General Education requirements are required for graduation. Not all GE requirements are listed in this section (see Specialty Core requirements for more details).</td>
<td></td>
</tr>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>HUMANITIES/FINE ARTS/FOREIGN LANGUAGE 1</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2110 Interpersonal Communication SS (Minimum grade of C- required)</td>
<td>3</td>
</tr>
<tr>
<td>Choose one of the following:</td>
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</tr>
<tr>
<td>BIOLOGY</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>or PHYS 2210 Physics for Scientists and Engineers I PP (4) (Minimum grade of C- required)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>PHYSICAL EDUCATION/HEALTH/SAFETY OR ENVIRONMENT 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

**Complete the following:**

Complete the following (minimum grade of C- required):

| CS 1400 Fundamentals of Programming (Minimum grade of C- required) |
| CS 2600 Computer Networks I (Minimum grade of C- required) |
| CS 2810 Computer Organization and Architecture (Minimum grade of C- required) |

Emphasis Requirements: 32 Credits

Complete the following (minimum grade of C- required):

| ECE 1000 Introduction to Electrical and Computer Engineering |
| ECE 2250 Circuit Theory |
| ECE 2255 Circuit Theory Lab |
| ECE 2700 Digital Design I |
| IT 1510 Introduction to System Administration--Linux/UNIX |
| MATH 1210 Calculus I QL (fulfills GE requirement) |
| CS 1410 Object-Oriented Programming |
| CS 2370 C plus plus Programmin WE |
| CS 2420 Introduction to Algorithms and Data Structures |
| ECE 2705 Digital Design I Lab |
| PHYS 2220 Physics for Scientists and Engineers II PP |
| PHYS 2225 Physics for Scientists and Engineers II Lab |

Emphasis Electives Requirements: 9 Credits

Complete 6 credits from the following courses (minimum grade of C- required):

| CS 2300 Discrete Mathematical Structures I (3) |
| CS 2450 Software Engineering (3) |
| CS 2550 Web Programming I (3) |
| MATH 1220 Calculus II (4) |

Complete 3 credits of any CS or ECE course 1000 or higher.

**Graduation Requirements:**

1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.

**Footnote:**

1. COMM 1020 Public Speaking HH recommended
2. HLTH 1100 Personal Health and Wellness TE or EXSC1097 Fitness for Life TE recommended
Program Learning Outcomes

1. Graduates are proficient in using data structures and algorithms.
2. Graduates understand the foundations of computer architecture.
3. Graduates will have the ability to apply knowledge of mathematics, science, and engineering.
4. Graduates will have the ability to design and conduct experiments, as well as to analyze and interpret data.
5. Graduates will have the ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety manufacturability and sustainability.
6. Graduates will have the ability to function on multidisciplinary teams.
7. Graduates will have the ability to identify, formulate, and solve engineering problems.
8. Graduates will have an understanding of professional and ethical responsibility.
9. Graduates will have the ability to communicate effectively.
10. Graduates will have the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
11. Graduates will have recognition of the need for, and an ability to engage in lifelong learning.
12. Graduates will have knowledge of contemporary issues as they relate to computer engineering practice.

Related Careers

- Computer and Information Systems Managers
- Computer and Information Research Scientists
- Information Security Analysts
- Computer Programmers
- Software Developers, Applications
- Software Developers, Systems Software
- Web Developers
- Computer Network Support Specialists
- Computer Occupations, All Other
- Computer Science Teachers, Postsecondary

Computer Science - Computing and Networking Sciences Emphasis, A.A.S.

Requirements

The program introduces the student to a wide range of networking and data communications technologies and entry level programming.

Total Program Credits: 63

General Education Requirements: 13 Credits

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td>3</td>
</tr>
<tr>
<td>HUMANITIES/FINE ARTS/FOREIGN LANGUAGE 1</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2110 Interpersonal Communication SS (Minimum grade of C- required)</td>
<td>3</td>
</tr>
<tr>
<td>Choose one of the following:</td>
<td></td>
</tr>
<tr>
<td>BIOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2215 Physics for Scientists and Engineers I Lab (1)</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 64 semester credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.

Footnote:

1 COMM 1020 Public Speaking HH recommended
2 HLTH 1100 Personal Health and Wellness TE or EXSC 1097 Fitness for Life TE recommended

Computer Science - Computing and Networking Sciences Emphasis, A.A.S.

Careers

1. Graduates are proficient in using data structures and algorithms.
2. Graduates understand the foundations of computer architecture.
3. Graduates are able to develop solutions to significant computing problems.
4. Graduates will have a thorough understanding of the theory and constructs of programming languages.
5. Graduates understand the theoretical foundations of computation.
6. Graduates understand the principles and components of operating systems.
7. Graduates have proficiency in the mathematical skills needed in computer science (viz. discrete mathematics, basic probability and statistics, basic differential and integral calculus).
8. Students understand the fundamentals of net-centric computing.

Related Careers

- Computer and Information Systems Managers
- Computer and Information Research Scientists
- Information Security Analysts
- Computer Programmers
- Software Developers, Applications
- Software Developers, Systems Software
- Web Developers
- Computer Network Support Specialists
- Computer Occupations, All Other
- Computer Science Teachers, Postsecondary

Computer Science, A.S.

Requirements

The CS Associate degree is a transfer degree used when a student is contemplating changing schools. Because it includes all general education classes, attempting to earn this degree four semesters will necessarily lengthen the time to earn a BS degree.

Total Program Credits: 61

General Education Requirements: 40 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENGH 1005 Literacies and Composition Across Context CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1210</td>
<td>Calculus I QL</td>
<td>4</td>
</tr>
</tbody>
</table>

Complete one of the following:

- HIST 2700 US History to 1877 AS (3)
  - HIST 2710 US History since 1877 AS (3)
  - HIST 1700 American Civilization AS (3)
  - HIST 1740 US Economic History AS (3)
  - POLS 1000 American Heritage SS (3)
  - POLS 1100 American National Government AS (3)

Complete the following:

- PHIL 2050 Ethics and Values IH     | 3
- HLTH 1100 Personal Health and Wellness TE (2)
  - or EXSC 1097 Fitness for Life TE  | 2

Distribution Courses

Humanities:

- COMM 1020 Public Speaking HH (recommended) | 3

Social Science:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 2210</td>
<td>Physics for Scientists and Engineers I PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2215</td>
<td>Physics for Scientists and Engineers I Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

Additional Distribution Courses

Biology: 3

Fine Arts Distribution: 3

Complete one of the following additional GE course/lab combinations:

- BIOL 1610 College Biology I BB | 4
- BIOL 1615 College Biology I Laboratory | 1
- CHEM 1210 Principles of Chemistry I PP | 4
- CHEM 1215 Principles of Chemistry I Laboratory | 1
- PHYS 2020 College Physics II PP | 4
- PHYS 2025 College Physics II Lab | 1
- PHYS 2220 Physics for Scientists and Engineers II PP | 4
- PHYS 2225 Physics for Scientists and Engineers II Lab | 1
- GEO 1010 Introduction to Geology PP | 3
- GEO 1015 Introduction to Geology Laboratory | 1
- GEO 202R Science Excursion | 1

Discipline Core Requirements: 21 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 1400</td>
<td>Fundamentals of Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 1410</td>
<td>Object-Oriented Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 2300</td>
<td>Discrete Mathematical Structures</td>
<td>3</td>
</tr>
<tr>
<td>CS 2370</td>
<td>C Plus Plus Programming WE</td>
<td>3</td>
</tr>
<tr>
<td>CS 2420</td>
<td>Introduction to Algorithms and Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CS 2550</td>
<td>Web Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 2810</td>
<td>Computer Organization and Architecture</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 61 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a C- in Discipline Core courses.
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Footnote

1Minimum grade of C- required

Computer Science, A.S.

Careers

1. Analyze a simple computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
Computer Science

2. Design, implement, and evaluate a simple computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.
3. Communicate effectively in a variety of contexts.
4. Apply computer science theory and software development fundamentals to produce computing-based solutions.

Related Careers
- Computer and Information Systems Managers
- Computer and Information Research Scientists
- Information Security Analysts
- Computer Programmers
- Software Developers, Applications
- Software Developers, Systems Software
- Web Developers
- Computer Network Support Specialists
- Computer Occupations, All Other
- Computer Science Teachers, Postsecondary

Programmer, Certificate of Completion

Requirements
The program introduces the students to basic, entry level programming.

Total Program Credits: 30

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>21 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 1400 Fundamentals of Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 1410 Object-Oriented Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 2300 Discrete Mathematical Structures I</td>
<td>3</td>
</tr>
<tr>
<td>CS 2420 Introduction to Algorithms and Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CS 2600 Computer Networks I</td>
<td>3</td>
</tr>
<tr>
<td>CS 2810 Computer Organization and Architecture</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
</tbody>
</table>

Elective Requirements: 9 Credits

<table>
<thead>
<tr>
<th>Choose 9 credits from the following courses (Must be approved by CSE Department. See CSE adviser):</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 2450 Software Engineering (3)</td>
</tr>
<tr>
<td>CS 2550 Web Programming I (3)</td>
</tr>
<tr>
<td>CS 281R Internship (1-8) (Must be taken for 3 credits)</td>
</tr>
<tr>
<td>CS 3060 Operating Systems Theory (3)</td>
</tr>
<tr>
<td>CS 3250 Java Software Development (3)</td>
</tr>
<tr>
<td>CS 3260 CsharpNET Software Development (3)</td>
</tr>
<tr>
<td>CS 3370 C plus plus Software Development (3)</td>
</tr>
<tr>
<td>CS 3520 Database Theory (3)</td>
</tr>
<tr>
<td>IT 1510 Introduction to System Administration—Linux/UNIX (3)</td>
</tr>
</tbody>
</table>

Graduation Requirements: 1.
- Completion of a minimum of 30 semester credits.
- Minimum grade of C- required in all courses.
- Overall grade point average of 2.0 (C) or above.

Computer Science, Minor

Requirements
The program provides the student with entry level programming instruction, and an overview of some portions of the program.

Total Program Credits: 18

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>9 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 1400 Fundamentals of Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 1410 Object-Oriented Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 2420 Introduction to Algorithms and Data Structures</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements: 9 Credits

<table>
<thead>
<tr>
<th>Complete at least three CS courses numbered 3060 or above</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. To fill the requirements for a computer science minor students must have no course grade lower than C- in any of the CNS courses required for the computer science minor

Computer Science, Minor

Careers
1. Analyze simple computing problems in order to identify solutions.
2. Design a computing-based solution given a set of simple requirements.
3. Implement a computing-based solution given a set of simple requirements.
4. Implement linear and non-linear data structures.

Related Careers
- Computer and Information Systems Managers
- Computer and Information Research Scientists
- Information Security Analysts
- Computer Programmers
- Software Developers, Applications
- Software Developers, Systems Software
- Web Developers
- Computer Network Support Specialists
- Computer Occupations, All Other
- Computer Science Teachers, Postsecondary
Computational Data Science, B.S.

**Requirements**

The Computational Data Science Degree develops strong interdisciplinary skills in mathematics, statistics, computer science and big data processing. Create algorithms, write code and scripts to solve problems beyond the basic use of existing tools in support of an industrial, enterprise-level big data pipeline. The mix of competencies and experiences required for Data Science differs significantly from those developed in the individual degree programs in the four areas mentioned above. Gain real-world experience as a springboard to working in industry as a Data Scientist or to pursue a graduate degree.

**Total Program Credits: 121**

### General Education Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1210</td>
<td>Calculus I QL</td>
<td>4</td>
</tr>
</tbody>
</table>

**American Institutions: Complete one of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>and</td>
<td>HIST 2710 US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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</table>

**Complete the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>EXSC 1097 Fitness for Life TE</td>
<td>2</td>
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**Distribution Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1020</td>
<td>Public Speaking HH *</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2110</td>
<td>Interpersonal Communication SS *</td>
<td>3</td>
</tr>
<tr>
<td>Biology (choose from list)</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
## Computer Science - Computer Networking Emphasis, B.S.

### Requirements

The Networking specialization in the Computer Science degree program is designed to prepare students with strong internet-related programming and/or engineering skills. In addition to core Computer Science courses, it requires in-depth courses in network and Internet operations as well as extensive experience in web and network software development.

### Total Program Credits: 120

#### Matriculation Requirements:

2. Completion of MATH 1210 Calculus I QL and ENGL 1010 Introduction to Academic Writing CC or ENGH 1005 Literacies and Composition Across Contexts CC with a grade of C or better.
3. Each of CS 1400, CS 1410, CS 2300, CS 2420, MATH 1210, and (ENGL 1010 or ENGH 1005) cannot be taken more than twice to obtain the required grade.
4. Overall GPA of 2.5 or higher.

### General Education Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<tr>
<td>or</td>
<td>ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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<tr>
<td>MATH 1210</td>
<td>Calculus I QL</td>
<td>4</td>
</tr>
</tbody>
</table>

### Graduation Requirements:

1. Completion of a minimum of 120 semester credits, with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.0 or above.
3. Must have a minimum grade of C- with a combined GPA of 2.5 or higher in all discipline requirements and the General Education requirements that are marked with an *.
4. Residency hours -- minimum of 30 credit hours through course attendance at UVU. 10 of these hours must be within the last 45 hours earned. At least 12 of the credit hours earned in residence must be in approved Computational Data Science (CDS) courses.
5. All transfer credit must be approved in writing by UVU.
6. No more than 80 semester hours and no more than 20 hours in CDS type courses of transfer credit from a two-year college.
7. No more than 30 semester hours may be earned through independent study and/or extension classes.
8. Successful completion of at least one Global/Intercultural course. CS 305G satisfies this requirement.

### Related Careers

- Natural Sciences Managers
- Computer Occupations, All Other

---

72 Course Catalog 2023-2024 Utah Valley University
American Institutions: Complete one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>and</td>
<td>HIST 2710  US History since 1877 AS</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS</td>
<td>3</td>
</tr>
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<td>HIST 1740</td>
<td>US Economic History AS</td>
<td>3</td>
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<td>POLS 1100</td>
<td>American National Government AS</td>
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Complete the following:

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<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHIL 2050</td>
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<td>3</td>
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<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
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<tr>
<td>or</td>
<td>EXSC 1097  Fitness for Life TE</td>
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Distribution Courses:

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<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COMM 1020</td>
<td>Public Speaking HH</td>
<td>3</td>
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<tr>
<td>COMM 2110</td>
<td>Interpersonal Communication SS</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts Distribution (Choose from list)</td>
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<td>Physical Science (Choose from list)</td>
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Additional GE to be completed in the core.

Discipline Core Requirements: 54 Credits

Complete one of the following additional GE course/ lab combinations: 5

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<tr>
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<td>and</td>
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<td>or</td>
<td>CHEM 1210  Principles of Chemistry I PP</td>
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<tr>
<td>and</td>
<td>CHEM 1215  Principles of Chemistry I Laboratory</td>
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<tr>
<td>or</td>
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<td>and</td>
<td>PHYS 2025  College Physics II Lab</td>
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<tr>
<td>or</td>
<td>PHYS 2220  Physics for Scientists and Engineers II PP</td>
<td>4</td>
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<tr>
<td>and</td>
<td>PHYS 2225  Physics for Scientists and Engineers II Lab</td>
<td>1</td>
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<tr>
<td>or</td>
<td>GEO 1010  Introduction to Geology PP</td>
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<tr>
<td>and</td>
<td>GEO 1015  Introduction to Geology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>and</td>
<td>GEO 202R  Science Excursion</td>
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Minimum grade of C- required in these courses.

<table>
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<th>Description</th>
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<td>CS 1410</td>
<td>Object-Oriented Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 2300</td>
<td>Discrete Mathematical Structures I</td>
<td>3</td>
</tr>
<tr>
<td>CS 2370</td>
<td>C plus plus Programming WE</td>
<td>3</td>
</tr>
<tr>
<td>CS 2420</td>
<td>Introduction to Algorithms and Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CS 2550</td>
<td>Web Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CS 2600</td>
<td>Computer Networks I</td>
<td>3</td>
</tr>
<tr>
<td>CS 2690</td>
<td>Computer Networks II</td>
<td>3</td>
</tr>
<tr>
<td>CS 2810</td>
<td>Computer Organization and Architecture</td>
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</tr>
<tr>
<td>CS 305G</td>
<td>Global Social and Ethical Issues in Computing GI WE</td>
<td>3</td>
</tr>
<tr>
<td>CS 3060</td>
<td>Operating Systems Theory</td>
<td>3</td>
</tr>
<tr>
<td>CS 3100</td>
<td>Data Privacy and Security</td>
<td>3</td>
</tr>
<tr>
<td>CS 3240</td>
<td>Discrete Mathematical Structures II</td>
<td>3</td>
</tr>
<tr>
<td>CS 3320</td>
<td>Numerical Software Development</td>
<td>3</td>
</tr>
<tr>
<td>CS 3520</td>
<td>Database Theory</td>
<td>3</td>
</tr>
<tr>
<td>STAT 2050</td>
<td>Introduction to Statistical Methods</td>
<td>4</td>
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</tbody>
</table>
# Computer Science

**Emphasis Requirements:** 27 Credits

Minimum grade of C- required in these courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CS 2450</td>
<td>Software Engineering</td>
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<tr>
<td>CS 3660</td>
<td>Web Programming II</td>
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<tr>
<td>CS 3670</td>
<td>Network Programming</td>
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<tr>
<td>CS 4610</td>
<td>TCP/IP Internet Architecture</td>
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</tr>
<tr>
<td>CS 4670</td>
<td>Undergraduate Research Project for Networking Specialization</td>
<td>3</td>
</tr>
<tr>
<td>IT 1510</td>
<td>Introduction to System Administration--Linux/UNIX</td>
<td>3</td>
</tr>
<tr>
<td>IT 3510</td>
<td>Advanced System Administration--Linux/UNIX</td>
<td>3</td>
</tr>
<tr>
<td>CS 3250</td>
<td>Java Software Development</td>
<td>(3)</td>
</tr>
<tr>
<td>CS 3270</td>
<td>Python Software Development</td>
<td>(3)</td>
</tr>
<tr>
<td>CS 3380</td>
<td>JavaScript Software Development</td>
<td>(3)</td>
</tr>
<tr>
<td>CS 3370</td>
<td>C plus plus Software Development</td>
<td>(3)</td>
</tr>
<tr>
<td>CS 3540</td>
<td>Game Programming</td>
<td>(3)</td>
</tr>
<tr>
<td>CS 3680</td>
<td>Mobile Device Programming</td>
<td>(3)</td>
</tr>
<tr>
<td>CS 479R</td>
<td>Advanced Current Topics in Computer Science</td>
<td>(1-3)</td>
</tr>
<tr>
<td>ECE 2700</td>
<td>Digital Design I</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Emphasis Elective Requirements:** 6 Credits

Complete 6 credits from the following or any CS 3000 or 4000 level course not already required. A minimum grade of C- is required in these courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 3370</td>
<td>C plus plus Software Development</td>
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</tr>
<tr>
<td>CS 3540</td>
<td>Game Programming</td>
<td>(3)</td>
</tr>
<tr>
<td>CS 3680</td>
<td>Mobile Device Programming</td>
<td>(3)</td>
</tr>
<tr>
<td>CS 479R</td>
<td>Advanced Current Topics in Computer Science</td>
<td>(1-3)</td>
</tr>
<tr>
<td>ECE 2700</td>
<td>Digital Design I</td>
<td>(3)</td>
</tr>
<tr>
<td>ECE 2705</td>
<td>Digital Design I Lab</td>
<td>(1)</td>
</tr>
<tr>
<td>ECE 4780</td>
<td>Wireless and Mobile Communications</td>
<td>(3)</td>
</tr>
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<td>IT 2700</td>
<td>Information Security Fundamentals</td>
<td>(3)</td>
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<td>IT 2800</td>
<td>Computer Forensic Fundamentals</td>
<td>(3)</td>
</tr>
<tr>
<td>IT 3600</td>
<td>Internetworking and Router Management</td>
<td>(3)</td>
</tr>
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<td>IT 3700</td>
<td>Ethical Hacking and Countermeasures</td>
<td>(3)</td>
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<tr>
<td>MATH 1220</td>
<td>Calculus II</td>
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<tr>
<td>MATH 2270</td>
<td>Linear Algebra</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits, with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.0 or above. Must have a minimum grade of C- with a combined GPA of 2.5 or higher in all discipline core and emphasis requirements and the General Education requirements marked with a footnote.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU. 10 of these hours must be within the last 45 hours earned. At least 12 of the credit hours earned in residence must be in approved CSE Department courses.
4. All transfer credit must be approved in writing by UVU.
5. No more than 80 semester hours and no more than 20 hours in CS type courses of transfer credit from a two-year college.
6. No more than 30 semester hours may be earned through independent study and/or extension classes.
7. Successful completion of at least one Global/Intercultural course.

**Footnote:**

1 Minimum grade required (see Graduation Requirements)

---

**Computer Science - Computer Networking Emphasis, B.S.**

**Careers**

1. Graduates are proficient in using data structures and algorithms.
2. Graduates understand the foundations of computer architecture.
3. Graduates are able to develop solutions to significant computing problems.
4. Graduates will have a thorough understanding of the theory and constructs of programming languages.
5. Graduates understand the theoretical foundations of computation.
6. Graduates understand the principles and components of operating systems.
7. Graduates have proficiency in the mathematical skills needed in computer science (viz. discrete mathematics, basic probability and statistics, basic differential and integral calculus).
8. Students understand the fundamentals of net-centric computing.

Related Careers
- Computer and Information Systems Managers
- Computer and Information Research Scientists
- Information Security Analysts
- Computer Programmers
- Software Developers, Applications
- Software Developers, Systems Software
- Web Developers
- Computer Network Support Specialists
- Computer Occupations, All Other
- Computer Science Teachers, Postsecondary

Computer Science - Computer Science Emphasis, B.S.

Requirements
Computer Science spans the range from theory through programming to cutting-edge development of computing solutions. Computer Scientists master the theory and practice of computing, and explore new and exciting ways to use computers. Systems like Google and Amazon are created by computer scientists.

Total Program Credits: 120

Matriculation Requirements:
1. Completion of CS 1400, CS 1410, CS 2300, and CS 2420 with a grade of C+ better.
2. Completion of MATH 1210 and ENGL 1010 with a grade of C or better.
3. Each of CS 1400, CS 1410, CS 2300, CS 2420, MATH 1210, and (ENGL 1010 or ENGH 1005) cannot be taken more than twice to obtain the required grade.
4. Overall GPA of 2.5 or higher.

General Education Requirements: 33 Credits

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<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<tr>
<td>or</td>
<td>ENGH 1005</td>
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<td></td>
<td>Literacies and Composition Across Contexts CC (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
</tr>
<tr>
<td>MATH 1210</td>
<td>Calculus I QL</td>
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American Institutions: Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS</td>
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<td>and</td>
<td>HIST 2710</td>
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<td></td>
<td>US History since 1877 AS</td>
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<tr>
<td>HIST 1700</td>
<td>American Civilization AS</td>
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<td>HIST 1740</td>
<td>US Economic History AS</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS</td>
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</table>

Complete the following:

<table>
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<tr>
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<tr>
<td>PHIL 2050</td>
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<td></td>
<td>Fitness for Life TE</td>
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</table>

Distribution Courses:

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<td>Biology (Choose from list)</td>
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<td></td>
<td>Physical Science (Choose from list)</td>
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<td></td>
<td>Additional GE to be completed in the core.</td>
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Discipline Core Requirements: 54 Credits

Complete one of the following additional GE course/lab combinations: 5

<table>
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<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
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<td>BIOL 1615</td>
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<td>College Biology I Laboratory</td>
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<td>CHEM 1210</td>
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<td>Principles of Chemistry I PP</td>
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<td>Principles of Chemistry I Laboratory</td>
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<td></td>
<td>Introduction to Geology PP</td>
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<td>and</td>
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<td>Introduction to Geology Laboratory</td>
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<td>and</td>
<td>GEO 202R</td>
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<td>Science Excursion</td>
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Computer Science

Minimum grade of C- required in these courses.

<table>
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<td>CS 1410</td>
<td>Object-Oriented Programming</td>
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<td>CS 2300</td>
<td>Discrete Mathematical Structures I</td>
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<td>CS 2370</td>
<td>C plus plus Programming WE</td>
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<td>CS 2420</td>
<td>Introduction to Algorithms and Data Structures</td>
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<td>Web Programming I</td>
<td>3</td>
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<td>CS 2600</td>
<td>Computer Networks I</td>
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<td>CS 2690</td>
<td>Computer Networks II</td>
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<tr>
<td>CS 2810</td>
<td>Computer Organization and Architecture</td>
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<td>CS 305G</td>
<td>Global Social and Ethical Issues in Computing GI WE</td>
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<td>CS 3060</td>
<td>Operating Systems Theory</td>
<td>3</td>
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<td>CS 3100</td>
<td>Data Privacy and Security</td>
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<td>Discrete Mathematical Structures II</td>
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</tr>
<tr>
<td>CS 3320</td>
<td>Numerical Software Development</td>
<td>3</td>
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<td>CS 3520</td>
<td>Database Theory</td>
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Emphasis Requirements: 24 Credits

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<tr>
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<tr>
<td>CS 3270</td>
<td>Python Software Development (3)</td>
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<tr>
<td>CS 3370</td>
<td>C Plus Plus Software</td>
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</table>

or

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 3380</td>
<td>JavaScript Software Development (3)</td>
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<tr>
<td>CS 3310</td>
<td>Analysis of Algorithms</td>
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<tr>
<td>CS 3450</td>
<td>Principles and Patterns of Software Design</td>
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<tr>
<td>CS 4380</td>
<td>Advanced High-Performance Computer Architecture</td>
<td>3</td>
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<tr>
<td>CS 4450</td>
<td>Analysis of Programming Languages</td>
<td>3</td>
</tr>
<tr>
<td>CS 4470</td>
<td>Artificial Intelligence</td>
<td>3</td>
</tr>
<tr>
<td>CS 4490</td>
<td>Compiler Construction</td>
<td>3</td>
</tr>
</tbody>
</table>

Emphasis Elective Requirements: 9 Credits

Complete 9 credits from the following: any CS 3000 or 4000 level course not already required. (Minimum grade of C- required in these courses.):

Graduation Requirements:

1. Completion of a minimum of 120 semester credits, with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.0 or above. Must have a minimum grade of C- with a combined GPA of 2.5 or higher in all discipline core and emphasis requirements and the General Education requirements marked with a footnote.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU. 10 of these hours must be within the last 45 hours earned. At least 12 of the credit hours earned in residence must be in approved CSE Department courses.
4. All transfer credit must be approved in writing by UVU.
5. No more than 80 semester hours and no more than 20 hours in CS type courses of transfer credit from a two-year college.
6. No more than 30 semester hours may be earned through independent study and/or extension classes.
7. Successful completion of at least one Global/Intercultural course.

Footnote
1 Minimum grade required (see Graduation Requirements)

Computer Science - Computer Science Emphasis, B.S.

Careers

1. Graduates are proficient in using data structures and algorithms.
2. Graduates understand the foundations of computer architecture.
3. Graduates are able to develop solutions to significant computing problems.
4. Graduates will have a thorough understanding of the theory and constructs of programming languages.
5. Graduates understand the theoretical foundations of computation.
6. Graduates understand the principles and components of operating systems.
7. Graduates have proficiency in the mathematical skills needed in computer science (viz. discrete mathematics, basic probability and statistics, basic differential and integral calculus)
8. Students understand the fundamentals of net-centric computing

Related Careers
- Computer and Information Systems Managers
- Computer and Information Research Scientists
- Information Security Analysts
- Computer Programmers
- Software Developers, Applications
- Software Developers, Systems Software
- Web Developers
- Computer Network Support Specialists
- Computer Occupations, All Other
- Computer Science Teachers, Postsecondary

Computer Science - Full Stack Web Development Emphasis, B.S.

Requirements
Computer Science spans the range from theory through programming to cutting-edge development of computing solutions. Computer Scientists master the theory and practice of computing, and explore new and exciting ways to use computers. Systems like Google and Amazon are created by computer scientists.

Total Program Credits: 120

Matriculation Requirements:
1. Completion of CS 1400, CS 1410, CS 2300, and CS 2420 with a grade of C+ better.
2. Completion of MATH 1210 and ENGL 1010 or ENGL 1005 with a grade of C or better.
3. Each of CS 1400, CS 1410, CS 2300, CS 2420, MATH 1210, and (ENGL 1010 or ENGL 1005) cannot be taken more than twice to obtain the required grade.
4. Overall GPA of 2.5 or higher.

General Education Requirements: 33 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<tr>
<td>or</td>
<td>ENGH 1005</td>
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<td></td>
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<td>MATH 1210</td>
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American Institutions: Complete one of the following: 3

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS</td>
</tr>
<tr>
<td>and</td>
<td>HIST 2710</td>
</tr>
<tr>
<td></td>
<td>HIST 1700</td>
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<td>HIST 1740</td>
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Distribution Courses:

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<th>Title</th>
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</thead>
<tbody>
<tr>
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<td>Public Speaking HH</td>
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<tr>
<td>or</td>
<td>COMM 2110</td>
</tr>
<tr>
<td></td>
<td>PHIL 2050</td>
</tr>
<tr>
<td>or</td>
<td>HLTH 1100</td>
</tr>
<tr>
<td></td>
<td>or</td>
</tr>
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</table>

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<td></td>
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</tr>
<tr>
<td>or</td>
<td>HLTH 1100</td>
</tr>
<tr>
<td>or</td>
<td>EXSC 1097</td>
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Distribution Courses:

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<tr>
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<th>Title</th>
</tr>
</thead>
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</tr>
<tr>
<td>and</td>
<td>BIOL 1615</td>
</tr>
<tr>
<td>or</td>
<td>CHEM 1210</td>
</tr>
<tr>
<td>and</td>
<td>CHEM 1215</td>
</tr>
<tr>
<td>or</td>
<td>PHYS 2020</td>
</tr>
<tr>
<td>and</td>
<td>PHYS 2025</td>
</tr>
<tr>
<td>or</td>
<td>PHYS 2220</td>
</tr>
<tr>
<td>and</td>
<td>PHYS 2225</td>
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<tr>
<td>or</td>
<td>GEO 1010</td>
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Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS</td>
<td></td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS</td>
<td></td>
</tr>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td></td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>EXSC 1097</td>
<td>Fitness for Life TE</td>
</tr>
</tbody>
</table>

Additional GE to be completed in the core.

Discipline Core Requirements: 54 Credits

Complete one of the following additional GE course/lab combinations: 5

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<tr>
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<td>College Biology I BB</td>
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<tr>
<td>and</td>
<td>BIOL 1615</td>
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<tr>
<td>or</td>
<td>CHEM 1210</td>
</tr>
<tr>
<td>and</td>
<td>CHEM 1215</td>
</tr>
<tr>
<td>or</td>
<td>PHYS 2020</td>
</tr>
<tr>
<td>and</td>
<td>PHYS 2025</td>
</tr>
<tr>
<td>or</td>
<td>PHYS 2220</td>
</tr>
<tr>
<td>and</td>
<td>PHYS 2225</td>
</tr>
<tr>
<td>or</td>
<td>GEO 1010</td>
</tr>
<tr>
<td>and GEO 1015</td>
<td>Introduction to Geology Laboratory (1)</td>
</tr>
<tr>
<td>and GEO 202R</td>
<td>Science Excursion (1)</td>
</tr>
<tr>
<td>Minimum grade of these courses.</td>
<td></td>
</tr>
<tr>
<td>CS 1400</td>
<td>Fundamentals of Programming</td>
</tr>
<tr>
<td>CS 1410</td>
<td>Object-Oriented Programming</td>
</tr>
<tr>
<td>CS 2300</td>
<td>Discrete Mathematical Structures I</td>
</tr>
<tr>
<td>CS 2370</td>
<td>C plus plus Programming WE</td>
</tr>
<tr>
<td>CS 2420</td>
<td>Introduction to Algorithms and Data Structures</td>
</tr>
<tr>
<td>CS 2550</td>
<td>Web Programming I</td>
</tr>
<tr>
<td>CS 2600</td>
<td>Computer Networks I</td>
</tr>
<tr>
<td>CS 2690</td>
<td>Computer Networks II</td>
</tr>
<tr>
<td>CS 2810</td>
<td>Computer Organization and Architecture</td>
</tr>
<tr>
<td>CS 305G</td>
<td>Global Social and Ethical Issues in Computing</td>
</tr>
<tr>
<td>CS 3060</td>
<td>Operating Systems Theory</td>
</tr>
<tr>
<td>CS 3100</td>
<td>Data Privacy and Security</td>
</tr>
<tr>
<td>CS 3240</td>
<td>Discrete Mathematical Structures II</td>
</tr>
<tr>
<td>CS 3320</td>
<td>Numerical Software Development</td>
</tr>
<tr>
<td>CS 3520</td>
<td>Database Theory</td>
</tr>
<tr>
<td>STAT 2050</td>
<td>Introduction to Statistical Methods</td>
</tr>
</tbody>
</table>

| Emphasis Requirements: 33 Credits |
| Minimum grade of C- required in these courses. |

| or CS 3370 | C plus plus Software Development (3) |
| CS 3380    | JavaScript Software Development      |
| CS 3410    | Human Factors in Software Development |
| CS 3660    | Web Programming II                   |
| CS 3680    | Mobile Device Programming            |
| CS 4660    | NoSQL Database Development           |
| CS 4690    | Distributed Internet Application Development |
| CS 4880    | Cloud Computing                      |
| CS 4900    | Full Stack Web Senior Capstone       |

Complete 3 credits from any CS 3000 or 4000 level course not already required. (Minimum grade of C- required in these courses.)

<table>
<thead>
<tr>
<th>Graduation Requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Completion of a minimum of 120 semester credits, with a minimum of 40 upper-division credits.</td>
</tr>
<tr>
<td>2. Overall grade point average of 2.0 or above. Must have a minimum grade of C- with a combined GPA of 2.5 or higher in all discipline core and emphasis requirements and the General Education requirements marked with aa footnote.</td>
</tr>
<tr>
<td>3. Residency hours -- minimum of 30 credit hours through course attendance at UVU. 10 of these hours must be within the last 45 hours earned. At least 12 of the credit hours earned in residence must be in approved CSE Department courses.</td>
</tr>
<tr>
<td>4. All transfer credit must be approved in writing by UVU.</td>
</tr>
<tr>
<td>5. No more than 80 semester hours and no more than 20 hours in CS type courses of transfer credit from a two-year college.</td>
</tr>
<tr>
<td>6. No more than 30 semester hours may be earned through independent study and/or extension classes.</td>
</tr>
<tr>
<td>7. Successful completion of at least one Global/Intercultural course.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Footnote</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Minimum grade required (see Graduation Requirements)</td>
</tr>
</tbody>
</table>

**Computer Science - Full Stack Web Development Emphasis, B.S.**

**Careers**

1. Design the architecture of full stack web systems.
2. Develop full stack web applications that provide web services and consume web services.
3. Develop web infrastructure for building web systems.
4. Design data systems that support the special needs of web applications.
**Related Careers**
- Computer and Information Systems Managers
- Computer and Information Research Scientists
- Information Security Analysts
- Computer Programmers
- Software Developers, Applications
- Software Developers, Systems Software
- Web Developers
- Computer Network Support Specialists
- Computer Occupations, All Other
- Computer Science Teachers, Postsecondary

**Computer Science - Secure Computing Emphasis, B.S.**

**Requirements**
The Bachelor of Science in Computer Science with Secure Computing emphasis is a degree to provide a solid foundation in secure computing and develop advanced skills to master the technical details to develop complex systems securely. It consists mainly of 36 credit hours of security-focused classes, 30 core computer science classes, plus several additional computer sciences elective courses to have the greatest practical applicability. The degree will highly qualify students to meet the high-demand workforce in the security domain.

**Total Program Credits: 120**

Matriculation Requirements:
1. Completion of CS 1400, CS 1410, CS 2300, and CS 2420 with a grade of C+ better.
2. Completion of MATH 1210 and ENGL 1010 or ENGH 1005 with a grade of C or better.
3. Each of CS 1400, CS 1410, CS 2300, CS 2420, MATH 1210, and (ENGL 1010 or ENGH 1005) cannot be taken more than twice to obtain the required grade.
4. Overall GPA of 2.5 or higher.

General Education Requirements: 33 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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</tr>
<tr>
<td>or</td>
<td>ENGH 1005</td>
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<tr>
<td></td>
<td>Literacies and Composition Across Contexts CC (5)</td>
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</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1210</td>
<td>Calculus I QL</td>
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</tr>
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</table>

American Institutions: Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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<tr>
<td>and</td>
<td>HIST 2710</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
</tr>
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</table>

Complete the following:

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness AS (2)</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>EXSC 1097</td>
<td>Fitness for Life AS</td>
</tr>
</tbody>
</table>

Distribution Courses:

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1020</td>
<td>Public Speaking HH</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2110</td>
<td>Interpersonal Communication SS</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts Distribution (Choose from list)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Biology (Choose from list)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Physical Science (Choose from list)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Additional GE to be completed in the core.

Discipline Core Requirements: 54 Credits

Complete one of the following additional GE course/lab combinations: 5

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1610</td>
<td>College Biology I BB (4)</td>
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<tr>
<td>and</td>
<td>BIOL 1615</td>
<td>College Biology I Laboratory (1)</td>
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<tr>
<td>or</td>
<td>CHEM 1210</td>
<td>Principles of Chemistry I PP (4)</td>
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<tr>
<td>and</td>
<td>CHEM 1215</td>
<td>Principles of Chemistry I Laboratory (1)</td>
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<td>or</td>
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<td>College Physics II PP (4)</td>
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<td>Physics for Scientists and Engineers II PP (4)</td>
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<td>and</td>
<td>PHYS 2225</td>
<td>Physics for Scientists and Engineers II Lab (1)</td>
</tr>
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<td>or</td>
<td>GEO 1010</td>
<td>Introduction to Geology PP (3)</td>
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<td>Course</td>
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<td>CS 1400</td>
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<td>CS 2300</td>
<td>Discrete Mathematical Structures I</td>
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<td>CS 2370</td>
<td>C plus plus Programming WE</td>
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<td>STAT 2050</td>
<td>Introduction to Statistical Methods</td>
<td>4</td>
</tr>
</tbody>
</table>

**Minimum grade of C- required in these courses.**

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<thead>
<tr>
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<th>Title</th>
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<tr>
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<td>Operating Systems Theory</td>
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<td>CS 3280</td>
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<td>Java Software Development</td>
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<td>CS 3360</td>
<td>C#SharpNET Software Development</td>
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<td>CS 3370</td>
<td>Python Software Development</td>
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</tr>
<tr>
<td>CS 3380</td>
<td>C Plus Plus Software</td>
<td>3</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits, with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.0 or above. Must have a minimum grade of C- with a combined GPA of 2.5 or higher in all discipline core and emphasis requirements and the General Education requirements marked with a footnote.
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4. All transfer credit must be approved in writing by UVU.
5. No more than 80 semester hours and no more than 20 hours in CS type courses of transfer credit from a two-year college.
6. No more than 30 semester hours may be earned through independent study and/or extension classes.
7. Successful completion of at least one Global/Intercultural course.

**Footnote:**

1 Minimum grade required (see Graduation Requirements)

**Computer Science - Secure Computing Emphasis, B.S.**

**Careers**

1. Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Apply security principles and practices to maintain operations in the presence of risks and threats.

Related Careers
- Computer and Information Systems Managers
- Computer and Information Research Scientists
- Information Security Analysts
- Computer Programmers
- Software Developers, Applications
- Software Developers, Systems Software
- Web Developers
- Computer Network Support Specialists
- Computer Occupations, All Other
- Computer Science Teachers, Postsecondary

Computer Science Education, B.S.

Requirements

The Bachelor of Science in Computer Science Education provides a solid foundation of software and web development skills specifically for secondary educators. It consists of computer science and web development classes as well as education courses necessary to obtain a Utah teaching license with endorsements in Computer Science and Web Development.

Total Program Credits: 120

Matriculation Requirements:

1. Pass MATH 1050 and ENGL 1010 with a grade of "C" or better.
2. Pass CS 1400, CS 1410, CS 2300, and CS 2420 with a grade of "C+" or better.
3. GPA of 3.0 or higher with no grade lower than a C in content area courses.
4. Completion of all General Education requirements and 70% of content area courses.
5. Pass LiveScan Criminal Background Check.
6. ENGL 2010 and MATH QL courses must have a grade C or higher.

General Education Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
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<td>Introduction to Academic Writing CC</td>
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<td>or</td>
<td>ENGH 1005</td>
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<tr>
<td></td>
<td>Literacies and Composition Across Contexts CC (5)</td>
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<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
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<td>or</td>
<td>MATH 1055</td>
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American Institutions: Complete one of the following: 3

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<tbody>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
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<tr>
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<td>US Economic History AS (3)</td>
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<td>American Heritage SS (3)</td>
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<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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<tr>
<td>and</td>
<td>HIST 2710</td>
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</table>

Complete the following:

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<th>Credits</th>
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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
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<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
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<td>or</td>
<td>EXSC 1097</td>
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<td></td>
<td>Fitness for Life TE</td>
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Distribution Courses:

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<td>Fine Arts Distribution</td>
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Discipline Requirements: 84 Credits

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<tbody>
<tr>
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<td>3</td>
</tr>
<tr>
<td>CS 1410</td>
<td>Object-Oriented Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 2300</td>
<td>Discrete Mathematical Structures I</td>
<td>3</td>
</tr>
<tr>
<td>CS 2370</td>
<td>C Plus Plus Programming WE</td>
<td>3</td>
</tr>
<tr>
<td>CS 2420</td>
<td>Introduction to Algorithms and Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CS 2450</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CS 2550</td>
<td>Web Programming I</td>
<td>3</td>
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<tr>
<td>CS 2600</td>
<td>Computer Networks I</td>
<td>3</td>
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<tr>
<td>or</td>
<td>IT 2600</td>
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<tr>
<td></td>
<td>Data Communication Fundamentals</td>
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## Computer Science

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<tbody>
<tr>
<td>CS 2810</td>
<td>Computer Organization and Architecture</td>
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<tr>
<td>CS 305G</td>
<td>Global Social and Ethical Issues in Computing GI WE</td>
<td>3</td>
</tr>
<tr>
<td>or INFO 405G</td>
<td>Global Ethical and Professional Perspectives in IS and IT GI WE</td>
<td>3</td>
</tr>
<tr>
<td>CS 3100</td>
<td>Data Privacy and Security</td>
<td>3</td>
</tr>
<tr>
<td>CS 3450</td>
<td>Principles and Patterns of Software Design</td>
<td>3</td>
</tr>
<tr>
<td>CS 3250</td>
<td>Java Software Development</td>
<td>3</td>
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<tr>
<td>or CS 3260</td>
<td>C#Sharp.NET Software Development</td>
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<tr>
<td>or CS 3270</td>
<td>Python Software Development</td>
<td></td>
</tr>
<tr>
<td>or CS 3370</td>
<td>C++ Plus Software Development</td>
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<tr>
<td>or CS 3380</td>
<td>JavaScript Software Development</td>
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<tr>
<td>DGM 1110</td>
<td>Digital Media Essentials I</td>
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<td>DWDD 1400</td>
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<td>DWDD 1600</td>
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**Education Methods Component**

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<tbody>
<tr>
<td>EDSC 1010</td>
<td>Introduction to Education</td>
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</tr>
<tr>
<td>EDSP 340G</td>
<td>Exceptional Students GI</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 3000</td>
<td>Educational Psychology</td>
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<tr>
<td>EDSC 325G</td>
<td>Equitable Technology Integration GI</td>
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<tr>
<td>EDSC 4200</td>
<td>Classroom Management I</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4250</td>
<td>Classroom Management II</td>
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<tr>
<td>EDSC 4440</td>
<td>Content Area Literacies</td>
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<tr>
<td>EDSC 445G</td>
<td>Multicultural Instruction ESL GI</td>
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<tr>
<td>EDSC 455G</td>
<td>Secondary Curriculum Instruction and Assessment GI</td>
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</table>

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits, with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.0 or above. Must have a minimum grade of C- with a combined GPA of 2.5 or higher in all discipline core and emphasis.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU. 10 of these hours must be within the last 45 hours earned. At least 12 of the credit hours earned in residence must be in approved CSE Department courses.
4. All transfer credit must be approved in writing by UVU.
5. No more than 80 semester hours and no more than 20 hours in CS type courses of transfer credit from a two-year college.
6. No more than 30 semester hours may be earned through independent study and/or extension classes.
7. Successful completion of at least one Global/Intercultural course.
8. Successful completion of at least two Writing Enriched (WE) courses.

### Computer Science Education, B.S.

**Careers**

1. Apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a set of computing requirements.
3. Apply pedagogical theories to facilitate learning in the field of computer science and web programming.
4. Demonstrate how to teach computer science and web programming in the secondary education system.
5. Evaluate student computer programming performance.

### Software Development, B.A.S.

**Requirements**

The Bachelor of Applied Science in Software Development is a degree to provide a solid foundation of software development skills. It consists mainly of 45 credit hours of computer science classes: the core computer science classes, plus several additional computer science courses selected so as to have greatest practical applicability. The degree will qualify students for mid-level programming jobs with good long-term prospects but not necessarily technical leadership roles.

**Total Program Credits: 120**

**Matriculation Requirements:**

1. Completion of CS 1400, CS 1410, CS 2300, and CS 2420 with a grade of C+ better.
2. Completion of MATH 1050 and ENGL 1010 with a grade of C or better.
3. Overall GPA of 2.5 or higher.

**General Education Requirements:**

36 Credits
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<td>or ENGL 1055</td>
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<td>American National Government AS (3)</td>
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<td>US History to 1877 AS (3)</td>
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<td>HLTH 1100</td>
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<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
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**Distribution Requirements:**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Biology</td>
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<td>Fine Arts Distribution</td>
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<tr>
<td>Social/Behavioral Science</td>
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**Discipline Core Requirements:** 51 Credits

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CS 1400</td>
<td>Fundamentals of Programming</td>
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<td>CS 1410</td>
<td>Object-Oriented Programming</td>
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<td>CS 2300</td>
<td>Discrete Mathematical Structures I</td>
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<td>CS 2370</td>
<td>C plus plus Programming WE</td>
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</tr>
<tr>
<td>CS 2420</td>
<td>Introduction to Algorithms and Data Structures</td>
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<td>CS 2450</td>
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<td>CS 305G</td>
<td>Global Social and Ethical Issues in Computing GI WE</td>
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<td>CS 3060</td>
<td>Operating Systems Theory</td>
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<td>Database Theory</td>
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<td>CS 3250</td>
<td>Java Software Development</td>
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<td>or CS 3260</td>
<td>CsharpNET Software Development</td>
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<td>or CS 3270</td>
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<td>or CS 3370</td>
<td>C Plus Plus Software Development</td>
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<td>JavaScript Software Development</td>
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**Complete one of the following:**

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<tr>
<td>CS 3410</td>
<td>Human Factors in Software Development</td>
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<tr>
<td>CS 3680</td>
<td>Mobile Device Programming</td>
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<tr>
<td>CS 481R</td>
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</table>

**One additional 3000-level CS Class not already taken**

**Extra-Major Specialization:**

*Courses in a single major other than Computer Science or Software Engineering. At least 33 Credits*
16 credit hours must be upper division

Graduation Requirements:
1. Completion of a minimum of 120 semester credits, with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.0 or above. Must have a minimum grade of C- with a combined GPA of 2.5 or higher in all discipline requirements.
3. Residency hours — minimum of 30 credit hours through course attendance at UVU. Ten of these hours must be within the last 45 hours earned. At least 12 of the credit hours earned in residence must be in approved Computer Science Department courses.
4. No more than 80 semester hours and no more than 20 hours of transfer credit from a two-year college may be applied to the core or elective courses.
5. No more than 30 semester hours may be earned through independent study.
6. Successful completion of at least one Global/Intercultural course.

Software Development, B.A.S.

Careers
1. Design a software-based solution to meet a given set of requirements.
2. Implement a software-based solution to meet a given set of requirements
3. Communicate effectively in a variety of professional contexts.
4. Function effectively as a member of a team engaged in software development.

Related Careers
• Computer Programmers
• Software Developers, Applications
• Software Developers, Systems Software
• Web Developers
• Computer Network Support Specialists
• Computer Science Teachers, Postsecondary

Software Engineering, B.S.

Requirements
Software Engineers design and develop large software systems. In addition, they may lead teams of software developers or quality assurance engineers. They also work with users and customers to understand their needs. Software systems we take for granted, such as Microsoft Office, are implemented by software engineers. Software engineers employ innovative software development approaches, such as Agile software development, to effectively manage software development projects.

Total Program Credits: 120

Matriculation Requirements:
1. Completion of CS 1400, CS 1410, CS 2300, and CS 2420 with a grade of C+ better.
2. Completion of MATH 1210 and (ENGL 1010 or ENGH 1005) with a grade of C or better.
3. Each of CS 1400, CS 1410, CS 2300, CS 2420, MATH 1210, and (ENGL ENGL 1010 or ENGH 1005) cannot be taken more than twice to obtain the required grade.
4. Overall GPA of 2.5 or higher.

General Education Requirements: 41 Credits

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<th>Course</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
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<td>Course Code</td>
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<td>Credits</td>
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<td>Science Excursion (1)</td>
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**Discipline Core Requirements:** 67 Credits

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<td>CS 2450</td>
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<td>CS 3060</td>
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<td>CS 3100</td>
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<td>Human Factors in Software Development</td>
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<td>CS 4450</td>
<td>Analysis of Programming Languages</td>
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<td>CS 4550</td>
<td>Software Engineering III</td>
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<tr>
<td>CS 496R</td>
<td>Senior Seminar</td>
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</table>

**Elective Requirements:**

Complete 9 credits from the following:

Any CS course numbered 3000 or higher not already required.

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits, with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.0 or above. Must have a minimum grade of C- with a combined GPA of 2.5 or higher in all discipline core and elective requirements and the General Education requirements marked with a footnote 1.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU. Ten of these hours must be within the last 45 hours earned. At least 12 of the credit hours earned in residence must be in approved CSE Department courses.
Computer Science

4. No more than 80 semester hours and no more than 20 hours of transfer credit from a two-year college may be applied to the core or elective courses.
5. No more than 6 semester hours may be earned through independent study.
6. Successful completion of at least one Global/Intercultural course.

Footnotes: \(^1\) Minimum grade of C- required.

**Software Engineering, B.S.**

**Careers**

| 1. Graduates are proficient in using data structures and algorithms. They understand how to implement them, when to apply them, and the abstractions associated with their use. |
| 2. Graduates understand the foundations of computer architecture. |
| 3. Graduates are able to develop solutions to significant software development problems. |
| 4. Graduates will be able to provide internal and external software documentation. |
| 5. Graduates are able to function effectively on teams to accomplish a common goal. |
| 6. Graduates understand software project lifecycles and development processes, and can follow standard processes. |
| 7. Graduates can elicit and write software specifications. |
| 8. Graduates understand principles of software quality assurance and testing, and can test software effectively. |

**Related Careers**

- Architectural and Engineering Managers
- Software Developers, Applications
- Software Developers, Systems Software
- Engineering Teachers, Postsecondary
Computer Science Graduate Programs

Computer Science Graduate Programs
The Computer Science Graduate Program is in the Scott M. Smith College of Engineering. To find the most up-to-date information, including Program Learning Outcomes for the Computer Science Graduate Program, visit their website.

Master of Computer Science Graduate Program

Course Descriptions

Artificial Intelligence, Graduate Certificate

Requirements
The Graduate Certificate in Artificial Intelligence provides fundamental and advanced skills in the principles, algorithms and technologies that enable AI and cybersecurity.

Total Program Credits: 18

Matriculation Requirements:

1. Application for admission to the graduate program with application fee by the established deadline.
2. Submit official transcripts from all universities attended.
3. A bachelor's degree from a regionally accredited college/university or the international equivalent.
4. A 3.0 cumulative undergraduate GPA or a 3.0 GPA calculated on the last 60 semester hours (90 quarter hours) of undergraduate work.
5. Completion of Introduction to Algorithms and Data Structures (CS 2420 or the equivalent).
6. For international students whose native language is not English, submit official TOEFL or IELTS band scores. A TOEFL score of 80 iBT (550 pBT) or higher, or an IELTS band score of 6.5 or higher within the past two years is required.
7. International students must also meet all US government requirements for international students.
8. The university uses a selective admissions process for admitting students to graduate programs. Meeting minimum admissions criteria does not guarantee admission to the graduate program or to the University as a graduate student.
9. Recommended courses to take before the program begins are Linear Algebra (MAT 2270 or equivalent) and Statistics & Probability (STAT 2050 or equivalent).

Graduation Requirements:

1. Completion of all courses with a B- or better.
2. Overall average GPA for 18 hours of 3.0 or higher.
3. A maximum of 6 credit hours transferred from another institution may be used to satisfy graduate requirements. At least two-thirds of the courses applied to the graduate certificate must be taken at UVU.

Artificial Intelligence, Graduate Certificate

Careers

1. Apply principles and techniques of AI and Machine Learning to solve problems.
2. Apply security principles and practices to maintain operations in the presence of risks and threats.

Master of Computer Science, M.C.S.

Requirements
The Master of Computer Science (MCS) at Utah Valley University is an applied graduate program resulting in a professional degree. Students graduating with this degree will have a broad grounding in computer science as a discipline and be well equipped to take on leadership roles in a wide range of computing technology-related industries. Student education will be focused on developing software systems using current technologies while allowing them the freedom to explore and exploit new technologies to solve real-world problems. Students will be required to develop a broad base of competency by passing required courses in large scale implementation, applied mathematics computing, information management, and software engineering. Electives will allow a student to continue to add breadth to their education or allow them to focus on specific areas of computer science they find interesting or feel will best advance their professional objectives.

Total Program Credits: 30
Computer Science Graduate Programs

Matriculation Requirements:

1. Application for admission to the MCS will include letters of recommendation and a statement of purpose.

2. Applicants must have an overall grade point average in their undergraduate work of 3.0 or higher on a 4.0 scale.

3. For international students whose native language is not English, a TOEFL score of 80 iBT (550 pBT) or higher, or an IELTS band score of 6.5 or higher within the past two years, is required.

4. Applicants with a bachelor's degree in a computer-related field (Computer Science, Computer Engineering, Software Engineering, or a closely related field) who have completed the following courses (or equivalent courses from other institutions) with a C+ or better will be deemed to have the fundamental computer science background to enter the program:
   - CS 2300 Discrete Structures I
   - CS 2420 Introduction to Algorithms and Data Structures
   - CS 2810 Computer Organization and Architecture
   - CS 3060 Operating Systems Theory
   - MATH 1210 Calculus I

5. Applicants without a bachelor's degree in a computer-related field or who have not completed the above courses with a C+ will be deemed lacking in fundamental computer science background to enter the program.

6. Applicants found lacking in fundamental computer science background can be conditionally admitted to the MCS. Conditionally admitted students will have an individualized MCS Leveling Plan (MCS LP) developed for them by the Computer Science Graduate Committee. Once the MCS LP has been met by the applicant, the applicant will be deemed to have the fundamental computer science background to enter the program. Graduate policy precludes conditionally admitted students from taking 6000 level courses.

7. All applicants will be subject to the approval of the Computer Science Graduate Committee.

Discipline Core Requirements: 18 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 6150</td>
<td>Advanced Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>CS 6300</td>
<td>Software Engineering Leadership</td>
<td>3</td>
</tr>
<tr>
<td>CS 6470</td>
<td>Machine Learning</td>
<td>3</td>
</tr>
<tr>
<td>CS 6500</td>
<td>Software Architecture</td>
<td>3</td>
</tr>
<tr>
<td>CS 6510</td>
<td>Design and Simulation of Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CS 6700</td>
<td>Advanced Mathematics for Computer Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements: 12 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 6100</td>
<td>Database Management System Construction (3)</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of all courses with a grade of B- or better.

2. Graduate Project Option:
   a. Graduate project proposal presented to and accepted by the student's Advisory Committee.
   b. Completion and defense of graduate project (CS 6600 and CS 6610); defense must be accepted by the student's Advisory Committee.
   c. Completion of all required courses and elective courses for a total of 30 credit hours with an average GPA of 3.0 or higher.

3. Graduate Coursework Option:
   a. Completion of all required courses and elective courses (CS 6600 and CS 6610 do not count toward this option) for a total of 30 credit hours with an average GPA of 3.0 or higher.

4. No transfer credit can be used to satisfy graduation requirements.

Master of Computer Science, M.C.S.

Careers

1. Design of large-scale software systems: To meet this standard, students demonstrate knowledge of common software architectural styles, interaction of design and quality, design tradeoffs, and the role of technology in software design.

2. Implementation of large-scale systems: To meet this standard, students demonstrate the ability to write large programs, integrate software modules built over multiple releases, and devise unit and systems tests to ensure the quality of the system.

3. Professional maturity: To meet this standard, students must demonstrate the ability to understand all phases of software lifecycle, take a significant project from conception through delivery without excessive supervision, be able to communicate technical concepts and problems in a coherent and professional manner, and meet deadlines.

4. Broad base of competency: To meet this standard, students must demonstrate a breadth of knowledge that spans multiple functional domains of computer science. This breadth of knowledge must be deep enough that a student can apply their problem-solving skills to multiple domains or use multiple domains to solve a single problem.

Related Careers

- Computer and Information Systems Managers
• Computer and Information Research Scientists
• Information Security Analysts
• Computer Programmers
• Software Developers, Applications
• Software Developers, Systems Software
• Web Developers
• Computer Network Support Specialists
• Computer Occupations, All Other
• Computer Science Teachers, Postsecondary
Construction Technologies

Construction Technologies

The Construction Technologies department is in the Scott M. Smith College of Engineering. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Construction Technologies department, visit their website.

Construction Technologies department

DEPARTMENT CHAIR
WARCUP, Robert Professor

FACULTY
ADAMS, Kenneth Assistant Professor
BAIRD, Kellan Associate Professor
COX, James Associate Professor
ERDMANN, DeWayne Associate Professor
HALLSTED, Barry Associate Professor
LINFIELD, J. Eric Associate Professor
SCHELLENBERG, Justin H. Assistant Professor
WARCUP, Robert Professor

Course Descriptions

Building Inspection Technology .................................................. 573
Cabinetry and Archit Woodwork ............................................... 579
Civil Engineering ..................................................................... 587
Construction Management ....................................................... 592
Facilities Management ............................................................. 701

Degrees & Programs

Cabinetry and Architectural Woodwork, A.A.S.

Requirements

Students may receive a One-Year Certificate, a Diploma, an Associate in Applied Science degree, an Associate in Science degree, or a Bachelor of Science Degree in Technology Management.

Total Program Credits: 63

General Education Requirements: 16 Credits

ENGLISH

ENGL 1010 Introduction to Academic Writing CC 3

or ENGH 1005 Literacies and Composition Across Contexts CC (5)

MATHEMATICS

MAT 1010 Intermediate Algebra (4)

or ACC 1150 Fundamentals of Business Math (3)

or EGDT 1600 Technical Math--Algebra (3)

HUMANITIES/FINE ARTS/FOREIGN LANGUAGE

Any approved Humanities, Fine Arts, or Foreign Language Distribution Course 3

SOCIAL AND BEHAVIORAL SCIENCE

Any approved Social or Behavioral Science Distribution course 3

BIOLOGY OR PHYSICAL SCIENCE

Any approved Biology or Physical Science Distribution Course 3

PHYSICAL EDUCATION/HEALTH/SAFETY OR ENVIRONMENT

Any approved Physical Education, Health, Safety or Environment Course 1

Discipline Core Requirements: 47 Credits

CAW 140R Millwork Technology (4) 1 16
CAW 1130 Residential Cabinetry 4
CAW 1150 Design Drafting and Billing 3
CAW 1170 Finish Technology 2
CAW 1210 Cabinetmaking Materials and Hardware 1
CAW 1250 Drafting and Computer Applications for Cabinetmakers 4
CAW 299R Skills USA 1
CAW 2250 Computer Aided Manufacturing for Woodworking 4
CAW 2300 Counter-top Technology 3
CAW 2430 Commercial Cabinetry Technology 4
CAW 2450 Machine Maintenance and Upkeep 2
EGDT 1040 Fundamentals of Technical Engineering Drawing 3

Graduation Requirements:

1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours--minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. Complete all core requirements with a minimum grade of "C-" or better.

Cabinetry and Architectural Woodwork, A.A.S.

Careers

1. Graduates of this program will be able to design, plan, and execute a complex woodworking project
2. Graduates will be able to obtain employment (employer or self) in the industry
3. Graduates of this program will be accepted into a related bachelor degree program or advanced trade program

Related Careers

- Cabinetmakers and Bench Carpenters
- Model Makers, Wood
- Patternmakers, Wood
- Sawing Machine Setters, Operators, and Tenders, Wood
- woodworking Machine Setters, Operators, and Tenders, Except Sawing
- Woodworkers, All Other

Cabinetry and Architectural Woodwork, A.S.

Requirements

Students may receive a One-Year Certificate, a Diploma, an Associate in Applied Science degree, an Associate in Science degree, or a Bachelor of Science Degree in Technology Management.
# Construction Technologies

**Total Program Credits: 63**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Context CC (5.0)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3.0)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6.0)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL (3.0)</td>
<td></td>
</tr>
<tr>
<td>STAT 1045 Introduction to Statistics with Algebra QL (5.0)</td>
<td></td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL (4.0)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5.0)</td>
<td></td>
</tr>
<tr>
<td>MATH 1090 College Algebra for Business QL (3.0)</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following: 3

- HIST 2700 US History to 1877 AS (3.0)
- HIST 2710 US History since 1877 AS (3.0)
- HIST 1700 American Civilization AS (3.0)
- HIST 1740 US Economic History AS (3.0)
- POLS 1000 American Heritage SS (3.0)
- POLS 1100 American National Government AS (3.0)

Complete the following:

- PHIL 2050 Ethics and Values IH 3
- HLTH 1100 Personal Health and Wellness TE (2.0)
- or EXSC 1097 Fitness for Life TE 2

**Distribution Courses**

- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution 3
- Fine Arts Distribution 3
- Social/Behavioral Science 3

**Discipline Core Requirements:** 28 Credits

Choose from CAW courses 1000 level or higher 11

- CAW 140R Millwork Technology (4.0) 12
- CAW 1150 Design Drafting and Billing 3
- CAW 1170 Finish Technology 2

**Graduation Requirements:**

1. Completion of a minimum of 63 semester credits
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

---

**Cabinetry and Architectural Woodwork, A.S. Careers**

1. Graduates of this program will be able to design, plan, and execute a complex woodworking project
2. Graduates will be able to obtain employment (employer or self) in the industry
3. Graduates of this program will be accepted into a related bachelor degree program or advanced trade program

**Related Careers**

- Cabinetmakers and Bench Carpenters
- Model Makers, Wood
- Patternmakers, Wood
- Sawing Machine Setters, Operators, and Tenders, Wood
- Woodworking Machine Setters, Operators, and Tenders, Except Sawing
- Woodworkers, All Other

---

**Construction Management, A.A.S. Requirements**

Students may earn an Associate in Applied Science degree. The Clyde Institute of Construction Management Program has been designed to provide students a strong foundation in Construction Management that prepares them for jobs in construction site supervision and/or for advancement on to a BS degree in Construction Management. The program provides courses in building construction, construction management and construction science that apply to all segments of the construction industry with an emphasis on heavy civil and commercial construction. Students will learn about construction materials and methods through the use of readings, 3-D models, hands-on laboratory exercises, and site visits. Construction management courses in estimating and scheduling are also provided along with a strong background in mathematics, computer technology, business and other general education subjects. A supervisory course is also required so students can learn to manage workers at construction sites.

**Total Program Credits: 63**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>24 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Choose one of the following</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 1045 Introduction to Statistics with Algebra QL (3)</td>
<td></td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1090 College Algebra for Business QL</td>
<td></td>
</tr>
<tr>
<td>Fine Arts or Humanities Distribution</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences Distribution</td>
<td>3</td>
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<tr>
<td>Physical Science Distribution</td>
<td>3</td>
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</table>
Discipline Core Requirements: 39 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGDT 1400</td>
<td>Surveying Applications and Field Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1600</td>
<td>Technical Math Algebra</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1610</td>
<td>Technical Math Geometry Trig</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 1010</td>
<td>Introduction to Construction Management WE</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 1020</td>
<td>Construction Materials and Methods I</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 1150</td>
<td>Construction Safety</td>
<td>2</td>
</tr>
</tbody>
</table>

Choose one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMGT 1190</td>
<td>Concrete and Framing Lab (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 1220</td>
<td>Finishing Lab (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 281R</td>
<td>Internship (1-6)</td>
<td></td>
</tr>
<tr>
<td>CMGT 2010</td>
<td>Construction Materials and Methods II</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 2035</td>
<td>Construction Computer Applications (Recommended)</td>
<td>3</td>
</tr>
<tr>
<td>or IM 2010</td>
<td>Business Computer Proficiency (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 2060</td>
<td>Construction Job Site Management</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 2080</td>
<td>Principles of Construction Scheduling</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 289R</td>
<td>Construction Industry Seminar (Must be taken twice for a total of one credit.)</td>
<td>1</td>
</tr>
</tbody>
</table>

Complete 6 credits from the following two specializations: 6

Heavy/Civil

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGDT 2400</td>
<td>Surveying Applications and Field Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1040</td>
<td>Fundamentals of Technical Engineering Drawing</td>
<td>3</td>
</tr>
</tbody>
</table>

Commercial/Residential

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIT 1010</td>
<td>Building Codes</td>
<td>3</td>
</tr>
<tr>
<td>BIT 1020</td>
<td>Residential Codes</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1040</td>
<td>3D Architectural Modeling</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Complete all core requirements with a minimum grade of C - or better.

Footnote:

1 See catalog for approved listings
2 Highly recommended: EGDT 1720 Architectural Rendering FF
3 Recommended: COMM 1020 Public Speaking HH
4 Recommended COMM 2110 Interpersonal Communication SS or FIN 1060 Personal Finance SS
5 Recommended: PHYS 1010 Elementary Physics PP or PHSC 1000 Survey of Physical Science PP or ENVT 1110 Introduction to Environment Management PP
6 Recommended: GEO 1010 Introduction to Geology PP or ENVT 1110 Introduction to Environmental Management PP

Construction Management, A.A.S.

Careers

1. Recognition of the need for health and safety, accident prevention, and regulatory compliance.
3. An ability to identify and analyze project delivery methods.
4. An ability to use and apply verbal and written business and communication skills.

Related Careers

• Construction Managers

Facilities Management, A.A.S.

Requirements

The Facilities Management associate's degree is designed to prepare graduates to manage physical facilities such as resorts, health care centers, government facilities, recreational complexes, schools, industrial plants, and apartment buildings. Two degree options are available: an Associate in Applied Science degree and a Bachelor of Science Degree in Technology Management.

Total Program Credits: 64

General Education Requirements: 17 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMGT 1150</td>
<td>Construction Safety</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1600</td>
<td>Technical Math Algebra</td>
<td>3</td>
</tr>
<tr>
<td>or MAT 1030</td>
<td>Quantitative Reasoning QL</td>
<td>3</td>
</tr>
<tr>
<td>or MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>Any approved Biology or Physical Science Distribution Course 1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TECH 200G</td>
<td>Technology and Human Life SS GI</td>
<td>3</td>
</tr>
</tbody>
</table>

Discipline Core Requirements: 48 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2010</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ART 1820</td>
<td>Interior Space Design</td>
<td>3</td>
</tr>
<tr>
<td>DGM 1645</td>
<td>Mixed Reality Essentials</td>
<td>2</td>
</tr>
<tr>
<td>BIT 1010</td>
<td>Building Codes</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 1010</td>
<td>Introduction to Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 1190</td>
<td>Concrete and Framing Lab</td>
<td>3</td>
</tr>
<tr>
<td>or CMGT 281R</td>
<td>Internship (1)</td>
<td></td>
</tr>
<tr>
<td>CMGT 1220</td>
<td>Finishing Lab</td>
<td>3</td>
</tr>
<tr>
<td>or CMGT 281R</td>
<td>Internship (1)</td>
<td></td>
</tr>
<tr>
<td>CMGT 2010</td>
<td>Construction Materials and Methods I</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 1020</td>
<td>Construction Materials and Methods II</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 2035</td>
<td>Construction Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 2080</td>
<td>Principles of Construction Scheduling</td>
<td>3</td>
</tr>
</tbody>
</table>

1 See catalog for approved listings
2 Highly recommended: EGDT 1720 Architectural Rendering FF
3 Recommended: COMM 1020 Public Speaking HH
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5 Recommended: PHYS 1010 Elementary Physics PP or PHSC 1000 Survey of Physical Science PP or ENVT 1110 Introduction to Environment Management PP
6 Recommended: GEO 1010 Introduction to Geology PP or ENVT 1110 Introduction to Environmental Management PP
3. Overall grade point average of 2.0 (C) or above.
4. Complete all courses with a minimum grade of "C-" or better.

Cabinetry and Architectural Woodwork, Certificate of Completion

Related Careers

- Cabinetmakers and Bench Carpenters
- Model Makers, Wood
- Patternmakers, Wood
- Sawing Machine Setters, Operators, and Tenders, Wood
- Woodworking Machine Setters, Operators, and Tenders, Except Sawing
- Woodworkers, All Other

Cabinetry and Architectural Woodwork, Certificate of Proficiency

Requirements

The Certificate of Proficiency in Cabinetry and Architectural Woodwork is available for all UVU students with a particular focus for high school students who desire to obtain a stackable certificate of proficiency with an emphasis in career and technical education while still enrolled in high school. This certificate will also be available from the University for college students/adults looking for basic entry-level skills leading to further academic advancement and learn more about the Cabinetry career field.

Total Program Credits: 17

Discipline Core Requirements: 17 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5.0)</td>
</tr>
<tr>
<td>MAT 1010</td>
<td>Intermediate Algebra</td>
<td>4</td>
</tr>
<tr>
<td>CAW 140R</td>
<td>Millwork Technology</td>
<td>4</td>
</tr>
<tr>
<td>EGDT 1040</td>
<td>Fundamentals of Technical Engineering Drawing</td>
<td>3</td>
</tr>
<tr>
<td>FIN 1060</td>
<td>Personal Finance SS</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 17 credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours -- minimum of 4 credit hours through course attendance at UVU.
Construction Technologies

Cabinetry and Architectural Woodwork, Certificate of Proficiency

Careers

1. Possess a working knowledge of Cabinetmaking Standards as set forth by Architectural Woodwork Institute (AWI).
2. Possess the skills and trade knowledge necessary to be productive in the cabinet making industry.
3. Possess good computational and reasoning skills.

Related Careers

- Cabinetmakers and Bench Carpenters
- Model Makers, Wood
- Patternmakers, Wood
- Sawing Machine Setters, Operators, and Tenders, Wood
- Woodworking Machine Setters, Operators, and Tenders, Except Sawing
- Woodworkers, All Other

Construction Management, Certificate of Completion

Requirements

A Certificate of Completion for students seeking an applied education in construction. The courses can lead the students who desire to further their education towards the AAS and/or BS degree in Construction Management.

Total Program Credits: 30

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>30 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMGT 1010 Introduction to Construction Management WE</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 1020 Construction Materials and Methods I</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 1150 Construction Safety</td>
<td>2</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 1190 Concrete and Framing Lab</td>
<td>3</td>
</tr>
<tr>
<td>or CMGT 281R Internship (1) (For maximum of 3 credits toward graduation)</td>
<td></td>
</tr>
<tr>
<td>CMGT 1220 Finishing Lab (3)</td>
<td></td>
</tr>
<tr>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>CMGT 2010 Construction Materials and Methods II</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 2035 Construction Computer Applications</td>
<td></td>
</tr>
<tr>
<td>or IM 2010 Business Computer Proficiency</td>
<td></td>
</tr>
<tr>
<td>CMGT 289R Construction Industry Seminar (Must be taken twice for a total of one credit.)</td>
<td>1</td>
</tr>
<tr>
<td>EGDT 1400 Surveying Applications and Field Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1600 Technical Math Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL(3)</td>
<td></td>
</tr>
<tr>
<td>STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL (4)</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 30 semester credits.
2. Overall grade point average of 2.0 (C) or above.
3. No grade lower than a C-.
4. Residency hours -- minimum of 10 credit hours through course attendance at UVU.

Construction Management, Certificate of Proficiency Careers

1. Students will demonstrate a basic understanding of construction management principles and practices in the following areas: Construction Blueprint Reading, Construction Processes, Construction Costs and Quantity Surveys, Construction Operations and Safety, Construction Management Principles.
2. Students will demonstrate verbal and written communication skills.
3. Students will have a foundational understanding of the following basic business practices: Business Communications, Business Computer Proficiency
4. Students will have a solid understanding of construction science in heavy civil, commercial, and residential construction areas including the following: Surveying, Construction Tools and Equipment, Construction Codes and Standards, Construction Graphics and Models, Construction Materials and Methods, Construction Systems, Construction Quality and Safety.
5. Students will have a strong foundation in mathematics and science: Algebra.

Related Careers

- Construction Managers

Construction Management, Certificate of Proficiency

Requirements

This certificate is available to all UVU students with a particular focus designed to provide high school students an opportunity to obtain a certificate of proficiency in a Career and Technical Education (CTE) field while still enrolled in high school and stack into certificate, associate and bachelor degrees at UVU. This certificate will also be available from the University for college students/adults looking for entry-level skills leading to further academic advancement and learn more about the construction field.

Total Program Credits: 15

<table>
<thead>
<tr>
<th>Discipline Core Requirements</th>
<th>15 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMGT 1190 Concrete and Framing Lab</td>
<td>3</td>
</tr>
<tr>
<td>CMGT 1220 Finishing Lab</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
</tbody>
</table>
Graduation Requirements:
1. Completion of a minimum of 15 credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours -- minimum of 4 credit hours through course attendance at UVU.

Construction Management, Certificate of Proficiency Careers
1. Recognition of the need for health and safety, accident prevention, and regulatory compliance.
3. An ability to use and apply current technical concepts and practices in planning and scheduling.
4. An ability to identify and analyze project delivery methods.
5. An ability to function effectively on teams and demonstrate skills in leadership and managing people.
6. An ability to use and apply verbal and written business and communication skills.

Related Careers
- Construction Managers

Woodworking Education, Certificate of Proficiency

Requirements
The CP in Woodworking Education is a package of existing courses that provides licensed, secondary education teachers in Utah with a pathway for adding the Associate level Woods endorsement to their professional portfolio. In addition, it establishes a means for individuals who wish to enter the teaching profession and are seeking a teaching credential with a means to demonstrate the content knowledge required for the Associate level Woods endorsement. It supports the endorsement portion of the licensing process only. It is not a full-fledged teacher preparation program and does not result in a recommendation for licensure.

Total Program Credits: 19

Graduation Requirements:
1. Completion of a minimum of 19 credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours--minimum of 4 credit hours through course attendance at UVU.

Cabinetry and Architectural Woodwork, Diploma

Requirements
Students may receive a One-Year Certificate, a Diploma, an Associate in Applied Science degree, an Associate in Science degree, or a Bachelor of Science Degree in Technology Management.

Total Program Credits: 49

Graduation Requirements:
1. Completion of a minimum of 49 or more semester credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours--minimum of 20 credit hours through course attendance at UVU.
4. Complete all Technical Specialty courses with a minimum grade of "C-" or better.

Footnote:

1 Required 4 times

Cabinetry and Architectural Woodwork, Diploma Careers

1. Possess a working knowledge of Cabinetmaking Standards as set forth by Architectural Woodwork Institute (AWI).
2. Possess the skills and trade knowledge necessary to be productive in the cabinet making industry.
3. Possess good computational and reasoning skills.

Related Careers
- Cabinetmakers and Bench Carpenters
- Model Makers, Wood
- Patternmakers, Wood
- Sawing Machine Setters, Operators, and Tenders, Wood
- Woodworking Machine Setters, Operators, and Tenders, Except Sawing
- Woodworkers, All Other

Construction Management, B.S.

Requirements

Students may earn an Associate in Applied Science degree. The Clyde Institute of Construction Management Program has been designed to provide students a strong foundation in Construction Management that prepares them for jobs in construction site supervision and/or for advancement on to a BS degree in Construction Management. The program provides courses in building construction, construction management and construction science that apply to all segments of the construction industry with an emphasis on heavy civil and commercial construction. Students will learn about construction materials and methods through the use of readings, 3-D models, hands-on laboratory exercises, and site visits. Construction management courses in estimating and scheduling are also provided along with a strong background in mathematics, computer technology, business and other general education subjects. A supervisory course is also required so students can learn to manage workers at construction sites.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL (4)</td>
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<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1090 College Algebra for Business QL (3)</td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Course Catalog 2023-2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1700 American Civilization AS (3)</td>
</tr>
<tr>
<td>HIST 1740 US Economic History AS (3)</td>
</tr>
<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
</tr>
<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
</tr>
<tr>
<td>POLS 1000 American Heritage SS (3)</td>
</tr>
<tr>
<td>POLS 1100 American National Government AS (3)</td>
</tr>
<tr>
<td>Complete the following:</td>
</tr>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
</tr>
<tr>
<td>HLTH 1100 Personal Health and Wellness TE (2)</td>
</tr>
<tr>
<td>or EXSC 1097 Fitness for Life TE</td>
</tr>
</tbody>
</table>

Distribution Courses

<table>
<thead>
<tr>
<th>Distribution Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology Distribution¹</td>
</tr>
<tr>
<td>Humanities Distribution²</td>
</tr>
<tr>
<td>Social Science Distribution³</td>
</tr>
<tr>
<td>Physical Science Distribution⁴</td>
</tr>
<tr>
<td>Third Science Distribution⁵</td>
</tr>
<tr>
<td>Fine Arts Distribution⁶</td>
</tr>
</tbody>
</table>

Discipline Core Requirements 76 Credits

<table>
<thead>
<tr>
<th>Discipline Core Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMGT 1010 Introduction to Construction Management WE</td>
</tr>
<tr>
<td>CMGT 1150 Construction Safety</td>
</tr>
<tr>
<td>CMGT 1190 Concrete and Framing Lab</td>
</tr>
<tr>
<td>or CMGT 1220 Finishing Lab (3)</td>
</tr>
<tr>
<td>or CMGT 281R Internship (1-6) (3 credits maximum towards graduation)</td>
</tr>
<tr>
<td>CMGT 1020 Construction Materials and Methods I</td>
</tr>
<tr>
<td>CMGT 2010 Construction Materials and Methods II</td>
</tr>
<tr>
<td>CMGT 2035 Construction Computer Applications</td>
</tr>
<tr>
<td>or IM 2010 Business Computer Proficiency (3)</td>
</tr>
<tr>
<td>CMGT 2060 Construction Job Site Management</td>
</tr>
<tr>
<td>CMGT 2080 Principles of Construction Scheduling</td>
</tr>
<tr>
<td>CMGT 289R Construction Industry Seminar (Must be taken twice for a total of one credit.)</td>
</tr>
<tr>
<td>CMGT 3010 Construction Materials Testing</td>
</tr>
<tr>
<td>CMGT 3030 Principles of Construction Estimating</td>
</tr>
<tr>
<td>CMGT 3060 Applied Statics and Strength of Materials</td>
</tr>
<tr>
<td>or EGDT 2600 Applied Structures I - Statics (3)</td>
</tr>
<tr>
<td>and EGDT 2610 Applied Structures II - Strength of Materials (3)</td>
</tr>
<tr>
<td>CMGT 3080 Construction Financial Management</td>
</tr>
<tr>
<td>CMGT 405G Global Sustainability and the Built Environment GI WE</td>
</tr>
<tr>
<td>CMGT 4010 Construction Contracts ²</td>
</tr>
<tr>
<td>CMGT 4500 Senior Capstone</td>
</tr>
<tr>
<td>CMGT 481R Internship (1-4) (1 credit required for graduation. Maximum of 4 credits may count towards graduation. Students</td>
</tr>
</tbody>
</table>
with sufficient management experience may choose an upper division elective in CMGT, EGDT, SURV or Woodbury School of Business with department approval)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEGL 3000</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1400</td>
<td>Surveying Applications and Field Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1600</td>
<td>Technical Math Algebra</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1610</td>
<td>Technical Math Geometry Trig</td>
<td>3</td>
</tr>
<tr>
<td>ACC 3000</td>
<td>Financial Managerial and Cost Accounting Concepts (Highly recommended)</td>
<td>3</td>
</tr>
<tr>
<td>or ACC 2110</td>
<td>Principles of Accounting I (3)</td>
<td></td>
</tr>
<tr>
<td>and ACC 2120</td>
<td>Principles of Accounting II (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete 15 credits from one of the following two specializations (A minimum of 5 credits must be upper division):

**Heavy/Civil**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGDT 1040</td>
<td>Fundamentals of Technical Engineering Drawing (3)</td>
<td></td>
</tr>
<tr>
<td>EGDT 2400</td>
<td>Surveying Applications and Field Techniques II (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 3050</td>
<td>Construction Equipment/Planning and Logistics (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 3090</td>
<td>Principles of Hydrology in Construction Management (3)</td>
<td></td>
</tr>
<tr>
<td>or SURV 3230</td>
<td>Construction and Route Surveys (3)</td>
<td></td>
</tr>
<tr>
<td>EGDT 3500</td>
<td>Advanced Civil Drafting and Design (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Commercial/Residential**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIT 1010</td>
<td>Building Codes (3)</td>
<td></td>
</tr>
<tr>
<td>or BIT 1020</td>
<td>Residential Codes (3)</td>
<td></td>
</tr>
<tr>
<td>EGDT 1020</td>
<td>3D Architectural Modeling (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 3020</td>
<td>Building Envelopes and Mechanical Systems (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 3160</td>
<td>Building Information Modeling (3)</td>
<td></td>
</tr>
<tr>
<td>CMGT 4020</td>
<td>Construction Project Management (3) (High Recommended)</td>
<td></td>
</tr>
<tr>
<td>or TECH 3400</td>
<td>Project Management WE (3)</td>
<td></td>
</tr>
</tbody>
</table>

Elective Requirements: 9 Credits

Choose 9 credits from the following: 9

<table>
<thead>
<tr>
<th>Category</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper division Woodbury School of Business courses</td>
<td></td>
</tr>
<tr>
<td>Upper division Technology Management courses</td>
<td></td>
</tr>
<tr>
<td>Other upper division Technical Specialty courses approved by Department Chair</td>
<td></td>
</tr>
<tr>
<td>Any upper division CMGT or EGDT courses not already completed.</td>
<td></td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 120 semester hours
2. A minimum of 40 credits must be upper-division (numbered 3000 or above).
3. Overall grade point average of 2.0 (C) or above
4. No grade lower than a C- in any Discipline Core or Elective course
5. Completion of GE and specified departmental requirements
6. Residency hours - Minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours
7. Successful completion of at least one Global/Intercultural course.
8. Successful completion of at least two Writing Enriched (WE) courses.

**Footnote**

1 See catalog for approved listings
2 Highly Recommended: COMM 1020 Public Speaking HH. See catalog for approved listings.
3 Recommended: COMM 2110 Interpersonal Communication SS or FIN 1060 Personal Finance SS. See catalog for approved listings
4 Recommended: PHYS 1010 Elementary Physics PP or PHSC 1000 Survey of Physical Science PP. See catalog for approved listings
5 Recommended: GEO 1010 Introduction to geology PP or ENVT 1110 Introduction to Environmental Management PP. See catalog for approved listings
6 Highly Recommended: EGDT 1720 Architectural Rendering FF. See catalog for approved listings
7 Students who have passed the state Real Estate exam may receive substitution credit. See advisor for more information.

**Construction Management, B.S. Careers**

1. Construction project management from pre-design through commissioning.
2. An ability to analyze the local and global impact of project life-cycle and sustainability.
3. Recognition of the need for health and safety, accident prevention, and regulatory compliance.
4. An ability to apply knowledge of law, contract documents administration, and dispute prevention and resolution.
5. An understanding of materials, labor and methods of construction.
6. An ability to apply knowledge finance and accounting principles.
7. An ability to use and apply current technical concepts and practices in planning and scheduling.
8. An ability to design, implement, and evaluate construction cost management including plan reading, quantity take offs and estimating.
9. An ability to identify and analyze project delivery methods.
10. An ability to function effectively on teams and demonstrate skills in leadership and managing people.
11. An ability to use and apply verbal and written business and communication skills.

**Related Careers**

- Construction Managers
Criminal Justice/Law Enforcement

Criminal Justice/Law Enforcement

The Criminal Justice/Law Enforcement department is in the College of Health and Public Service. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Criminal Justice/Law Enforcement department, visit their website.

Criminal Justice/Law Enforcement department

DEPARTMENT CHAIR
NOYES, Melissa Associate Professor

FACULTY
DUFFIN, Matthew Associate Professor
HARSTON, Stott P. Associate Professor
HEHNLY, Marcy Associate Professor
HOUGHTON, Amie Ball Associate Professor
KASSEL, Bobbi Associate Professor
LOS, Richard Professional In Residence
NOYES, Melissa Associate Professor
RUDD, Jonathan L. Assistant Professor
SMIDT, Michael L. Assistant Professor
VOGEL, Ryan J. Associate Professor

Course Descriptions

Criminal Justice..............................................................589
Forensic Science............................................................712
Intelligence Studies.........................................................746
National Security Studies............................................790

Degrees & Programs

Criminal Justice, A.A.

Requirements

Students in Criminal Justice may receive a Certificate of Proficiency in Law Enforcement Academy, an Associate in Science Degree in Criminal Justice, a Bachelor of Science Degree in Criminal Justice, or a Bachelor of Science Degree in Forensic Science.

Total Program Credits: 60

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education Requirements:</td>
<td>35 Credits</td>
</tr>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5.0)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3.0)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6.0)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL (3.0)</td>
<td></td>
</tr>
<tr>
<td>STAT 1045 Introduction to Statistics with Algebra QL (5.0)</td>
<td></td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL (4.0)</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700 US History to 1877 AS (3.0)</td>
<td></td>
</tr>
<tr>
<td>and HIST 2710 US History since 1877 AS (3.0)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700 American Civilization AS (3.0)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740 US Economic History AS (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000 American Heritage SS (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100 American National Government AS (3.0)</td>
<td></td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100 Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097 Fitness for Life TE (2.0)</td>
<td></td>
</tr>
</tbody>
</table>

Distribution Courses:

- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities 3
- Fine Arts 3
- Social/Behavioral Science 3

Discipline Core Requirements: 15 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 1010 Introduction to Criminal Justice SS</td>
<td>3</td>
</tr>
<tr>
<td>CJ 1340 Criminal Investigations</td>
<td>3</td>
</tr>
<tr>
<td>CJ 1350 Introduction to Forensic Science</td>
<td>3</td>
</tr>
<tr>
<td>CJ 1330 Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>CJ 2350 Laws of Evidence</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements: 10 Credits

- Foreign Language 8
- Electives may consist of any Criminal Justice (CJ) course that is not part of the core requirements, Forensic Science (FSCI) or National Security Studies (NSS) courses. 2

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours: Minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. For the AA degree, completion of 8 credit hours of course work from one language.
6. Must have a grade of C- or higher in all discipline core and criminal justice elective requirements.

Criminal Justice, A.A.

Careers

1. General Criminal Justice System Knowledge.
2. Effective Written Communication and Reasoning.

Related Careers

- Managers, All Other
Criminal Justice/Law Enforcement

- Criminal Justice and Law Enforcement Teachers, Postsecondary
- First-Line Supervisors of Police and Detectives

Criminal Justice, A.S.

Requirements

Students in Criminal Justice may receive a Certificate of Proficiency in Law Enforcement Academy, an Associate in Science Degree in Criminal Justice, a Bachelor of Science Degree in Criminal Justice, or a Bachelor of Science Degree in Forensic Science.

Total Program Credits: 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

| MAT 1030 | Quantitative Reasoning QL (3) |
| MAT 1035 | Quantitative Reasoning with Integrated Algebra QL (6) |
| STAT 1040 | Introduction to Statistics QL (3) |
| STAT 1045 | Introduction to Statistics with Algebra QL (5) |
| MATH 1050 | College Algebra QL (4) |
| MATH 1055 | College Algebra with Preliminaries QL (5) |

Complete one of the following: 3

| HIST 2700 US History to 1877 AS (3) |
| and HIST 2710 US History since 1877 AS (3) |
| HIST 1700 American Civilization AS (3) |
| HIST 1740 US Economic History AS (3) |
| POLS 1000 American Heritage SS (3) |
| POLS 1100 American National Government AS (3) |

Complete the following:

| PHIL 2050 Ethics and Values IH | 3 |
| HLTH 1100 Personal Health and Wellness TE | 2 |
| or EXSC 1097 Fitness for Life TE (2) |

Distribution Courses:

- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities 3
- Fine Arts 3
- Social/Behavioral Science 3

Discipline Core Requirements: 15 Credits

| CJ 1010 | Introduction to Criminal Justice SS |
| CJ 1340 | Criminal Investigations |
| CJ 1350 | Introduction to Forensic Science |
| CJ 1330 | Criminal Law |
| CJ 2350 | Laws of Evidence |

Elective Requirements: 10 Credits

Electives may consist of any Criminal Justice (CJ) course that is not part of the core requirements, Forensic Science (FSCI) or National Security Studies (NSS) courses.

Graduation Requirements:

1. Completion of a minimum of 60 or more semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours: Minimum of 20 credit hours through course attendance at UVU
4. Completion of GE and specified departmental requirements.
5. Must have a grade of C- or higher in all discipline core and criminal justice elective requirements.

Criminal Justice, A.S.

Careers

1. Students should acquire general knowledge about the criminal justice system, including familiarity with the criminal law, victimization, the adjudication process, corrections options, police-community relations, evidence, ethics and theory.
2. Students will demonstrate the skills necessary to communicate effectively in writing, solve complex problems demonstrating they can see problems from multiple perspectives and still support their final conclusions with persuasive arguments.
3. Students can describe and implement the main principles of the United States Constitution. Specifically, they will demonstrate they can properly apply Constitutional principles relating to individual rights and due process to actual criminal justice problems.

Related Careers

- Managers, All Other
- Criminal Justice and Law Enforcement Teachers, Postsecondary
- First-Line Supervisors of Police and Detectives

Forensic Science, A.S.

Requirements

The Associate of Science in Forensic Science (ASFS) is designed to provide a preparatory educational path for students who are seeking acceptance into UVU’s Bachelor of Science in Forensic Science (BSFS) degree program. The ASFS enable students to complete the general education requirements while meeting the required lower division course work needed for application to the BSFS degree. This degree will additionally provide a completion point for students who do not wish to pursue a bachelor’s degree, or facilitate transfer to another institution for a bachelor’s degree completion elsewhere.

Total Program Credits: 63

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>40 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following: 5

| MATH 1080 Precalculus QL (5) |
| MATH 1050 College Algebra QL (4) |
| and MATH 1060 Trigonometry QL (7) |

Complete one of the following: 3
Forensic Science, A.S.

**Careers**

1. Explain how forensic science uses scientific and mathematical principles.
2. Develop a conceptual foundation of the criminal justice system, rules of evidence, and the legal system.
3. Explain the relationship between forensic science and criminal law.
4. Situate forensic science applications within criminal investigative procedures.
5. Describe how various forensic science disciplines are utilized within criminal investigations.

Intelligence Studies, A.S.

**Requirements**

The Associate of Science in Intelligence Studies exposes students to the wide range of theoretical and functional issues related to the field of military intelligence. Students are prepared for employment in the intelligence field. This degree is limited to students participating in the Utah National Guard’s (UNG) military intelligence education program at Camp Williams in Bluffdale, Utah.

**Total Program Credits: 60**

**Matriculation Requirements:**

Students in the AS program must be admitted to the Utah National Guard’s Military Intelligence Education program and admitted to UVU.

**General Education Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
<td>5.0</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL</td>
<td>6.0</td>
</tr>
<tr>
<td>MAT 103H</td>
<td>Quantitative Reasoning QL</td>
<td>3</td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL</td>
<td>3</td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (3.0)</td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3.0)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3.0)</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 63 or more semester credits.
2. Overall grade point average of 2.7 (B-) or above.
3. Must have a grade of B- or higher in all math, science and criminal justice courses.
4. Residency hours: minimum of 16 credit hours through course attendance at UVU.

Program Electives: 6 Credits
Complete 6 credits from one of the following: 6

For Application to the BS Forensic Investigation Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 1340</td>
<td>Criminal Investigations</td>
<td></td>
</tr>
<tr>
<td>ZOOL 1090</td>
<td>Introduction to Human Anatomy and Physiology BB</td>
<td></td>
</tr>
</tbody>
</table>

For Application to the BS Forensic Laboratory Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1210</td>
<td>Calculus I QL</td>
<td></td>
</tr>
</tbody>
</table>

2 credits from any 1000 or 2000 level course
The Certificate of Proficiency in Criminal Justice is available for all UVU students with a particular focus designed to provide high school students an opportunity to obtain a certificate of proficiency with a focus on a Career and Technical Education (CTE) field while still enrolled in high school that will stack into certificates and associate degrees at UVU. This certificate will be available from the University for college students/adults looking for entry-level skills leading to further academic advancement and learn more about the criminal justice field.

**Total Program Credits: 15**

**Discipline Core Requirements:**

- **ENGL 1010** Introduction to Academic Writing CC 3
- or **ENGH 1005** Literacies and Composition Across Contexts CC (5)

Choose one of the following: 3

- **MAT 1030** Quantitative Reasoning QL (3)
- **MAT 1035** Quantitative Reasoning with Integrated Algebra QL (6)
- **STAT 1040** Introduction to Statistic QL (3)
- **STAT 1045** Introduction to Statistics with Algebra QL (5)
- **MATH 1050** College Algebra QL (4)
- **MATH 1055** College Algebra with Preliminaries QL (5)
- An Advanced Placement (AP) Mathematics Test with a score of 3 or higher

- **CJ 1010** Introduction to Criminal Justice SS 3
- **CJ 1330** Criminal Law 3
- **CJ 1340** Criminal Investigations 3

**Graduation Requirements:**

1. Completion of a minimum of 15 credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours -- minimum of 4 credit hours through course attendance at UVU.

**Criminal Justice, Certificate of Proficiency**

**Careers**

1. Students should acquire general knowledge about the criminal justice system, including familiarity with the criminal law, victimization, the adjudication process, corrections options, police-community relations, evidence, ethics and theory.
2. Students will gather, interpret, and evaluate information in a variety of forms while critiquing a crime scene scenario.
3. Students will approach complex problems from a diverse perspective while considering alternative solutions when critiquing a crime scene scenario.

**Related Careers**

- Managers, All Other
- Criminal Justice and Law Enforcement Teachers, Postsecondary
- First-Line Supervisors of Police and Detectives

**Law Enforcement, Certificate of Proficiency**

**Requirements**

Utah Valley University is a sanctioned provider of the Utah Law Enforcement Academy, the basic training program for certification of law enforcement officers. The academy is divided into two modules. The first, or core, provides training required for certification of special function officers and is foundational for law enforcement and correctional officers. The second module is required for certification as a reserve or law enforcement officer.
The NSS certificate of proficiency is aimed at students with a baccalaureate degree who are looking to re-tool or specialize in national security in order to enter or advance in a national security career. The certificate will provide an interdisciplinary program that prepares students for and allows existing professionals to advance in public and private sector national security careers through acquisition of subject matter expertise and analytical skills. The certificate will expose students to the wide variety of critically important security challenges and issues faced in the twenty-first century, such as terrorism and cyber security, nuclear proliferation and weapons of mass destruction, piracy and global pandemics, sovereignty and the use of force, and civil liberties and the rule of law. Students will also acquire skills such as critical thinking, writing, briefing, and analysis techniques specifically tailored for the national security field, but applicable in many others.

Whether students are interested in counterterrorism, homeland security, intelligence gathering and analysis, foreign relations, law and politics, diplomacy, or international development, the NSS certificate of proficiency will provide insight and skills needed to succeed in these professions.

**Related Careers**
- Managers, All Other
- Criminal Justice and Law Enforcement Teachers, Postsecondary
- First-Line Supervisors of Police and Detectives

**National Security Studies, Certificate of Proficiency**

**Requirements**

The NSS certificate of proficiency is aimed at students with a baccalaureate degree who are looking to re-tool or specialize in national security in order to enter or advance in a national security career. The certificate will provide an interdisciplinary program that prepares students for and allows existing professionals to advance in public and private sector national security careers through acquisition of subject matter expertise and analytical skills. This certificate will expose students to the wide variety of critically important security challenges and issues faced in the twenty-first century, such as terrorism and cyber security, nuclear proliferation and weapons of mass destruction, piracy and global pandemics, sovereignty and the use of force, and civil liberties and the rule of law. Students will also acquire skills such as critical thinking, writing, briefing, and analysis techniques specifically tailored for the national security field, but applicable in many others. Whether students are interested in counterterrorism, homeland security, intelligence gathering and analysis, foreign relations, law and politics, diplomacy, or international development, the NSS certificate of proficiency will provide insight and skills needed to succeed in these professions.

**Related Careers**
- Managers, All Other
- Criminal Justice and Law Enforcement Teachers, Postsecondary
- First-Line Supervisors of Police and Detectives

**Criminal Justice, Minor**

**Requirements**

Students in Criminal Justice may receive a Certificate of Proficiency in Law Enforcement Academy, an Associate in Science Degree in Criminal Justice, a Bachelor of Science Degree in Criminal Justice, or a Bachelor of Science Degree in Forensic Science.
Total Program Credits: 24

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Admitted to a bachelor degree program at UVU.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>12 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 1010 Introduction to Criminal Justice SS</td>
<td>3</td>
</tr>
<tr>
<td>CJ 1340 Criminal Investigations</td>
<td>3</td>
</tr>
<tr>
<td>CJ 1330 Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>CJ 2350 Laws of Evidence</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Requirements:</th>
<th>12 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete 12 credits from any CJ (Criminal Justice) or NSS (National Security Studies) upper-division courses. (At least one elective must be a CJ upper-division course.)</td>
<td>12</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Overall grade point average of 2.5 (C) or above, with completion of each Criminal Justice class with a “C-“ or higher.

Criminal Justice, Minor Careers

1. Students should acquire general knowledge about the criminal justice system, including familiarity with the criminal law, victimization, the adjudication process, corrections options, police-community relations, evidence, ethics and theory.
2. Students will gather, interpret, and evaluate information in a variety of forms while critiquing a crime scene scenario.
3. Students will approach complex problems from a diverse perspective while considering alternative solutions when critiquing a crime scene scenario.

Related Careers

- Managers, All Other
- Criminal Justice and Law Enforcement Teachers, Postsecondary
- First-Line Supervisors of Police and Detectives

National Security Studies, Minor

Requirements

The Minor in National Security Studies provides an interdisciplinary program that prepares students for public and private sector national security careers through acquisition of subject matter expertise and analytical skills. The minor exposes students to the wide variety of critically important security challenges and issues faced in the twenty-first century, such as terrorism and cyber security, nuclear proliferation and weapons of mass destruction, piracy and global pandemics, sovereignty and the use of force, and civil liberties and the rule of law. Students will also acquire skills such as critical thinking, writing, briefing, and analysis techniques specifically tailored for the national security field, but applicable in many others. Whether students are interested in counterterrorism, homeland security, intelligence gathering and analysis, foreign relations, law and politics, diplomacy, or international development, the Minor in National Security Studies provides the insight and skills needed to succeed in these professions.

Total Program Credits: 24

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Admitted to bachelor degree program at UVU</td>
</tr>
<tr>
<td>2. Students must take either CJ 1010 Introduction to Criminal Justice SS or POLS 1100 American National Government AS for matriculation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>15 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 1010 Introduction to Criminal Justice SS</td>
<td>3</td>
</tr>
<tr>
<td>or POLS 1100 American National Government AS</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSS 2010 Introduction to National Security WE</td>
</tr>
<tr>
<td>NSS 301R National Security Area Studies</td>
</tr>
<tr>
<td>NSS 475R Current Topics in National Security (3.0)</td>
</tr>
<tr>
<td>NSS 4600 National Security Law</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Requirements:</th>
<th>9 Credits</th>
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</thead>
<tbody>
<tr>
<td>Complete 9 credits from the following:</td>
<td></td>
</tr>
<tr>
<td>CNST 4795 Civil Rights and Civil Liberties (3.0)</td>
<td></td>
</tr>
<tr>
<td>NSS 4210 Law of War WE (3.0)</td>
<td></td>
</tr>
<tr>
<td>CJ 4160 Constitutional Criminal Rights (3.0)</td>
<td></td>
</tr>
<tr>
<td>CJ 3340 Terrorism and the Criminal Justice System (3.0)</td>
<td></td>
</tr>
<tr>
<td>ESMG 310G Introduction to Homeland Security GI (3.0)</td>
<td></td>
</tr>
<tr>
<td>HIST 3440 The History of World War I (3.0)</td>
<td></td>
</tr>
<tr>
<td>HIST 345G The History of World War II GI (3.0)</td>
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<tr>
<td>HIST 4140 Genocide in the Twentieth Century (3.0)</td>
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<tr>
<td>HIST 430G Violence and Social Conflict in Latin America GI (3.0)</td>
<td></td>
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<tr>
<td>IT 2700 Information Security Fundamentals (3.0)</td>
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<tr>
<td>MILS 259R Current Topics in Military Science (3.0)</td>
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</tr>
<tr>
<td>MILS 4200 The Profession of Arms I (3.0)</td>
<td></td>
</tr>
<tr>
<td>MILS 4210 The Profession of Arms II (3.0)</td>
<td></td>
</tr>
<tr>
<td>PJST 3020 The Ethics of War and Peace (3.0)</td>
<td></td>
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<tr>
<td>PJST 3100 Introduction to Human Security (3.0)</td>
<td></td>
</tr>
<tr>
<td>PJST 3400 Conflict Transformation: Resolution and Sustainable Peace (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 1440 Introduction to Middle East Politics (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 2100 Introduction to International Relations SS (3.0)</td>
<td></td>
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<tr>
<td>POLS 3100 Survey of International Terrorism (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 3210 World Diplomacy (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 3400 American Foreign Policy (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 3500 International Relations of the Middle East (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 3600 International Relations of East Asia WE (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 3610 International Organization WE (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 4500 International Conflict and Security (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 4610 International Law (3.0)</td>
<td></td>
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<tr>
<td>or Other course approved by department advisor or director.</td>
<td></td>
</tr>
</tbody>
</table>
Criminal Justice/Law Enforcement

Graduation Requirements
Completion of discipline core and electives with a C- grade or higher.

National Security Studies, Minor

Careers
1. Discuss the U.S. national security system and process, including familiarity with the National Security Council, executive departments and agencies, presidential powers, congressional roles and powers, applicable international and domestic law, and current geographical and functional issues in the national security field.
2. Demonstrate analytical thinking and reasoning, professional writing, and public speaking and presenting skills.
3. Apply both theoretical and practical approaches to complex national security problems, employing appropriate context to a decision-making framework.

Related Careers
- Managers, All Other
- Criminal Justice and Law Enforcement Teachers, Postsecondary
- First-Line Supervisors of Police and Detectives

Criminal Justice, B.S.
Requirements
Students in Criminal Justice may receive a Certificate of Proficiency in Law Enforcement Academy, an Associate in Science Degree in Criminal Justice, a Bachelor of Science Degree in Criminal Justice, or a Bachelor of Science Degree in Forensic Science.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
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<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
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<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

| MAT 1030 | Quantitative Reasoning QL (3) |
| MAT 1035 | Quantitative Reasoning with Integrated Algebra QL (6) |
| STAT 1040 | Introduction to Statistics QL (3) |
| STAT 1045 | Introduction to Statistics with Algebra QL (5) |
| MATH 1050 | College Algebra QL (4) |
| MATH 1055 | College Algebra with Preliminaries QL (5) |
| MATH 1090 | College Algebra for Business QL (3) |
| An Advanced Placement (AP) Mathematics Test with a score of 3 or higher | |

Complete one of the following: 3

| HIST 2700 | US History to 1877 AS (3) |
| and HIST 2710 | US History since 1877 AS (3) |
| HIST 1740 | US Economic History AS (3) |
| POLS 1000 | American Heritage SS (3) |
| POLS 1100 | American National Government AS (3) |

Complete 18 credits from the following (12 must be upper-division):

Complete the following:

| PHIL 2050 | Ethics and Values IH | 3 |
| HLTH 1100 | Personal Health and Wellness TE | 2 |
| or EXSC 1097 | Fitness for Life TE (2) |

Distribution Courses:

| Biology | 3 |
| Physical Science | 3 |
| Additional Biology or Physical Science | 3 |
| Humanities | 3 |
| Fine Arts | 3 |
| Social/Behavioral Science | 3 |

Discipline Core Requirements: 74 Credits

| CJ 1010 | Introduction to Criminal Justice SS | 3 |
| CJ 1300 | Introduction to Corrections Process | 3 |
| CJ 1330 | Criminal Law | 3 |
| CJ 1340 | Criminal Investigations | 3 |
| CJ 1350 | Introduction to Forensic Science | 3 |
| CJ 1390 | Introduction to Policing | 3 |
| CJ 2200 | Writing for Criminal Justice Professionals WE | 3 |
| CJ 2330 | Juvenile Justice | 3 |
| CJ 2350 | Laws of Evidence | 3 |
| CJ 250G | Justice for All GI | 3 |
| CJ 3270 | Criminology | 3 |
| CJ 3300 | Victimology | 3 |
| CJ 3400 | Drugs and Crime | 3 |
| CJ 4060 | Special Problems in Criminal Justice WE | 3 |
| CJ 4160 | Constitutional Criminal Rights | 3 |
| CJ 4200 | Ethical Issues in Criminal Justice | 3 |
| CJ 4250 | Criminal Justice Career Strategies | 2 |
| CJ 470G | Comparative Criminal Justice Systems GI | 3 |
| CJ 4880 | Qualitative Research Methods in Criminal Justice | 3 |
| CJ 4990 | Criminal Justice Capstone Seminar | 3 |

Complete 18 credits from the following (12 must be upper-division):

| CJ 481R | Internship (1-12) (Strongly Recommended) |

Elective Requirements: 8 Credits

Complete any 1000 course or higher 8

Graduation Requirements:
1. Completion of a minimum of 120 semester credits with 40 semester credits from 3000- and 4000-level courses.
2. Overall grade point average of 2.0 (C) or above. Must have a grade of C- or higher in all discipline core and criminal justice elective requirements.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.

Criminal Justice, B.S.

Careers

1. Students should acquire general knowledge about the criminal justice system, including familiarity with the criminal law, victimization, the adjudication process, corrections options, police-community relations, evidence, ethics and theory.
2. Students will demonstrate the skills necessary to communicate effectively in writing, solve complex problems demonstrating they can see problems from multiple perspectives and still support their final conclusions with persuasive arguments.
3. Students can describe and implement the main principles of the United States Constitution. Specifically, they will demonstrate they can properly apply Constitutional principles relating to individual rights and due process to actual criminal justice problems.
4. Students will be able to discuss the complexity of cultural diversity and ethical issues within the criminal justice system.
5. Students will design and conduct an original research study on a topic related to the study of CJ.

Related Careers

- Managers, All Other
- Criminal Justice and Law Enforcement Teachers, Postsecondary
- First-Line Supervisors of Police and Detectives

Forensic Science - Forensic Investigation Emphasis, B.S.

Requirements

The Forensic Investigation Emphasis within the BS in Forensic Science provides an interdisciplinary program that prepares students for public, state, and federal careers with needed forensic investigation subject matter expertise and analytical skills. This emphasis exposes students to the wide variety of critically important forensic investigation techniques, which are currently practiced within various forensic service providers and law enforcement agencies. Students are exposed to various techniques such as the identification and proper collection of evidence found at crime scenes, accurate crime scene documentation skills, forensic photography, death investigations, fingerprint processing/examinations, impression evidence/examination, bloodstain pattern analysis, crime scene reconstruction, firearms and tool mark evidence/examination. Students acquire skills such as critical thinking, writing, expert testimony, and analysis techniques specifically tailored for forensic investigation fieldwork. This emphasis provides students with the overall professional skills, work ethic, and demeanor required of forensic investigators.

Total Program Credits: 125

Matriculation Requirements:

1. Completion of all general education courses.
2. Completion of all lower division CJ courses with a B- grade or higher.
3. Completion of MATH 1080 (or MATH 1050 and MATH 1060), BIOL 1610, BIOL 1615, CHEM 1210, CHEM 1215, CHEM 1220, 1225, PHYS 2010, PHYS 2015 with a B- or grade or higher.
4. Overall GPA of 2.7 or higher.
5. Application for admission to BS Forensic Science program.

6. Two academic letters of recommendation

General Education Requirements: 40 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5.0)</td>
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Complete one of the following:

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<tr>
<td>MATH 1080 Precalculus QL (MATH 1050 or MATH 1060) also fulfill this requirement)</td>
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<table>
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<tbody>
<tr>
<td>HIST 1700 American Civilization AS (3.0)</td>
<td>3</td>
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<tr>
<td>HIST 1740 US Economic History AS (3.0)</td>
<td>3</td>
</tr>
<tr>
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<td>3</td>
</tr>
<tr>
<td>and HIST 2710 US History since 1877 AS (3.0)</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000 American Heritage SS (3.0)</td>
<td>3</td>
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<tr>
<td>PHIL 205G Ethics and Values IH GI</td>
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<tr>
<td>HLTH 1100 Personal Health and Wellness TE (2.0)</td>
<td>2</td>
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<tr>
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<td>2</td>
</tr>
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Distribution Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 1610 College Biology I BB</td>
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<tr>
<td>CHEM 1210 Principles of Chemistry I PP</td>
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<tr>
<td>PHYS 2010 College Physics I PP</td>
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<tr>
<td>CJ 1010 Introduction to Criminal Justice SS</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts Distribution</td>
<td>3</td>
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</table>

Discipline Core Requirements: 34 Credits

Forensic Science Foundational Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CJ 1330 Criminal Law</td>
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<tr>
<td>CJ 1350 Introduction to Forensic Science</td>
<td>3</td>
</tr>
<tr>
<td>CJ 2350 Laws of Evidence</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1615 College Biology I Laboratory</td>
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</tr>
<tr>
<td>CHEM 1215 Principles of Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1220 Principles of Chemistry II PP</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1225 Principles of Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2015 College Physics I Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2020 College Physics II PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2025 College Physics II Lab</td>
<td>1</td>
</tr>
<tr>
<td>FSCI 3400 Criminalistics</td>
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</tr>
<tr>
<td>FSCI 3820 Crime Scene Investigation Techniques I WE</td>
<td>3</td>
</tr>
<tr>
<td>FSCI 3860 Forensic Microscopy</td>
<td>3</td>
</tr>
<tr>
<td>FSCI 3880 Forensic Experts/Professional Practices and the Legal System</td>
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Emphasis Requirements: 51 Credits

Complete one of the Following:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td></td>
<td>3</td>
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</tbody>
</table>
Criminal Justice/Law Enforcement

Complete 21 Credits from the Following (two courses must be upper division):

- ZOOL 1090 Introduction to Human Anatomy and Physiology BB

or
- ZOOL 2320 Human Anatomy BB

and
- ZOOL 2325 Human Anatomy Laboratory (4.0)

Complete the Following:

- CJ 1340 Criminal Investigations 3
- FSCI 3300 Forensic Photography 3
- FSCI 3700 Fingerprint Processing 3
- FSCI 3720 Fingerprint Examination 3
- FSCI 3780 Bloodstain Pattern Analysis 3
- FSCI 3830 Crime Scene Investigation Techniques II WE 3
- FSCI 4100 Forensic Pathology 3
- FSCI 4200 Medicolegal Death Investigations 3

Complete one of the following as a Capstone Experience:

- FSCI 481R Forensic Science Internship 3
- FSCI 489R Research in Forensic Investigations
- FSCI 4990 Forensic Investigation Capstone
- FSCI 491R Directed Reading and Special Projects

Emphasis Electives: 21 Credits

Complete 21 Credits from the Following (two courses must be upper division):

- FSCI 3500 Footwear and Tire Mark Evidence and Examination (3.0)
- FSCI 3540 Forensic Trace Analysis I (3.0)
- FSCI 3550 Forensic Trace Analysis II (3.0)
- FSCI 3600 Forensic Anthropology I (3.0)
- FSCI 3850 Marijuana Identification Certificate (3.0)
- FSCI 4000 Firearms Examination (3.0)
- FSCI 4050 Forensic Approaches to Cold Case Investigation (3.0)
- FSCI 4300 Forensic Genealogy (3.0)
- FSCI 4320 Genealogy Research Methods and Standards (3)
- FSCI 4350 Forensic Genealogy Seminar (3)
- FSCI 475R Current Topics in Forensic Science (3.0)
- FSCI 491R Directed Reading and Special Projects (1.0-9.0)
- CHEM 2310 Organic Chemistry I (4.0)
- CHEM 2315 Organic Chemistry I Laboratory (1.0)
- CHEM 2320 Organic Chemistry II (4.0)
- CHEM 2325 Organic Chemistry II Laboratory (1.0)
- CHEM 3600 Biological Chemistry (3.0)
- CHEM 3000 Analytical Chemistry (2.0)
- BIOL 3550 Molecular Biology (3)
- BIOL 3555 Experiments in Molecular Biology
- CHEM 3005 Analytical Chemistry Laboratory (2.0)
- CHEM 3605 Biological Chemistry Lab (1.0)
- CHEM 4000 Instrumental Analysis WE (2.0)
- CHEM 4005 Instrumental Analysis WE (2.0)
- ENGL 3300 Collaborative Communication for Technology Professions (3.0)
- CJ 470G Comparative Criminal Justice Systems GI (3.0)

Any Upper Division CJ Course or Approved Elective

Notes:

1. COMM 1020 Public Speaking Recommended
2. ART 1050 Photography I Recommended

Graduation Requirements:

1. Completion of a minimum of 125 or more semester credits 40 credits of which must be upper division.
2. A minimum grade of B- or higher is required in all Math, Chemistry, Biology, Physics, and FSCI Courses with an overall GPA of 3.0 to graduate.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched courses.

Forensic Science - Forensic Investigation Emphasis, B.S.

Careers

1. Conduct proper crime scene documentation procedures, which include note taking, sketching, photography, crime scene reporting.
2. Identify physical evidence commonly encountered at crime scenes using various techniques from visual identification, alternate light source, and chemical enhancements.
4. Analyze legal aspects as they pertain to forensic investigative work.
5. Evaluate basic to complex crime scenes critically.
6. Employ any reconstruction techniques such as bloodstain pattern analysis or shooting incident scene analysis.
7. Evaluate proper approaches/techniques for death investigations.
8. Analyze and correlate trauma to investigative planning and coordination between other agencies and the medical examiner systems.
9. Describe qualifications, requirements, professional practices and ethical skills needed of the forensic expert.

Related Careers

- Forensic Science Technicians
- Criminal Justice and Law Enforcement Teachers, Postsecondary

Forensic Science - Forensic Laboratory Emphasis, B.S.

Requirements

The Forensic Laboratory Emphasis within the BS in Forensic Science provides students with a comprehensive science-based undergraduate education, which enables students to enter into a forensic science career. This emphasis provides the necessary technical and theoretical knowledge, skills, and abilities of modern forensic techniques. Students employ the theoretical and practical principles of chemistry, biology,
physics, and mathematics in order to perform forensic science work commonly conducted within a crime laboratory. Science-based study and application of these principles expose students to a stimulating academic environment conducive to scholarly inquiry. Students gain the knowledge and ability for research-based projects and for potential improvement of the forensic community. Throughout this program, students utilize effective written and oral communication skills required of forensic experts, as well as demonstrate work ethic, professional demeanor, reliability, and proper interpersonal skills.

**Total Program Credits: 126**

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| Humanities Distribution | 3 |
| Fine Arts Distribution | 3 |

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<th>Discipline Core Requirements: 34 Credits</th>
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<tr>
<th>Emphasis Electives: 5 Credits</th>
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<tbody>
<tr>
<td>CJ 2350 Laws of Evidence</td>
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<td>BIOL 1615 College Biology I Laboratory</td>
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<td>CHEM 1215 Principles of Chemistry I Laboratory</td>
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<tr>
<td>MATH 1210 Calculus I QL (Requires MATH 1080 or MATH 1050 &amp; MATH 1060)</td>
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<tr>
<td>STAT 2040 Principles of Statistics QL</td>
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<tr>
<td>BIOL 1620 College Biology II</td>
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<td>BIOL 1625 College Biology II Laboratory</td>
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<tr>
<td>BIOL 3500 Genetics</td>
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<td>BIOL 3600 Biological Chemistry</td>
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<td>BIOL 3605 Biological Chemistry Lab</td>
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<tr>
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<td>or BIOL 4500 Principles of Evolution WE</td>
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<tr>
<td>or BIOL 4515 Advanced Genetics Laboratory</td>
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<td>FSCI 3540 Forensic Trace Analysis I</td>
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<tr>
<td>FSCI 3550 Forensic Trace Analysis II</td>
</tr>
<tr>
<td>FSCI 443R Directed Research in Forensic Science</td>
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<tr>
<td>or FSCI 481R Forensic Science Internship</td>
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<th>Emphasis Electives: 5 Credits</th>
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<tbody>
<tr>
<td>Complete 5 credits from the following</td>
</tr>
<tr>
<td>FSCI 3300 Forensic Photography (3.0)</td>
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<td>FSCI 3500 Footwear and Tire Mark Evidence and Examination (3.0)</td>
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<td>FSCI 3600 Forensic Anthropology I (3.0)</td>
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<td>FSCI 3720 Fingerprint Examination (3.0)</td>
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<td>FSCI 3780 Bloodstain Pattern Analysis (3.0)</td>
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**Course Catalog 2023-2024**

**Criminal Justice/Law Enforcement**

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<th>Course Code</th>
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<tbody>
<tr>
<td>FSCI 3830</td>
<td>Crime Scene Investigation Techniques II WE (3.0)</td>
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<tr>
<td>FSCI 3850</td>
<td>Marijuana Identification Certificate (3.0)</td>
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<tr>
<td>FSCI 4000</td>
<td>Firearms Examination (3.0)</td>
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<tr>
<td>FSCI 4050</td>
<td>Forensic Approaches to Cold Case Investigations (3.0)</td>
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<tr>
<td>FSCI 4100</td>
<td>Forensic Pathology (3.0)</td>
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<td>FSCI 4200</td>
<td>Medicolegal Death Investigations (3.0)</td>
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<td>FSCI 4300</td>
<td>Forensic Genealogy (3.0)</td>
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<tr>
<td>FSCI 4320</td>
<td>Genealogy Research Methods and Standards (3.0)</td>
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<td>FSCI 4350</td>
<td>Forensic Genealogy Seminar (3.0)</td>
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<tr>
<td>FSCI 475R</td>
<td>Current Topics in Forensic Science (3.0)</td>
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<tr>
<td>CJ 470G</td>
<td>Comparative Criminal Justice Systems GI (3.0)</td>
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**Notes:**
1. COMM 1020 Public Speaking HH Recommended
2. ART 1050 Photography I FF Recommended

**Graduation Requirements:**
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2. A minimum grade of B- or higher is required in all Math, Chemistry, Biology, Physics, and FSCI Courses with an overall GPA of 3.0 to graduate.
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4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of two Writing Enriched courses.

**Forensic Science - Forensic Laboratory Emphasis, B.S.**

**Careers**
1. Demonstrate theoretical knowledge, skills and abilities of modern forensic techniques.
2. Identify evidence commonly found at crime scenes.
3. Scientifically analyze evidence used in criminal investigations.
4. Analyze principles of biology, chemistry, physics and mathematics as they pertain to the performance of forensic science work commonly conducted within a crime laboratory.
5. Evaluate scientific results of the analysis of physical evidence and correlate their importance to criminal investigations.
6. Describe legal aspects it pertains to forensic science.
7. Describe qualifications, requirements, professional practices and ethical skills needed of the forensic expert.

**Related Careers**
- Forensic Science Technicians
- Criminal Justice and Law Enforcement Teachers, Postsecondary

---

**National Security Studies, B.A.**

**Requirements**

The BA/BS in National Security Studies (NSS) will provide an interdisciplinary program that prepares students for public and private sector national security careers through acquisition of subject matter expertise and analytical skills. This baccalaureate degree program will expose students to the wide variety of critically important security challenges and issues faced in the twenty-first century such as: terrorism and cyber security, nuclear proliferation and weapons of mass destruction, piracy and global pandemics, sovereignty and the use of force, and civil liberties and the rule of law. Students will also acquire skills such as critical thinking, writing, briefing, and analysis techniques specifically tailored for the national security field, but applicable in many others. Whether students are interested in counterterrorism, homeland security, intelligence gathering and analysis, foreign relations, law and politics, diplomacy, or international development, the NSS BA/BS will provide insight and skills needed to succeed in these professions.

**Total Program Credits: 120**

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<thead>
<tr>
<th>General Education Requirements:</th>
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</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3) (recommended)</td>
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<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)</td>
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<tr>
<td>STAT 1040 Introduction to Statistics QL (3)</td>
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<td>STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
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<tr>
<td>MATH 1050 College Algebra QL (4) (recommended for Business, Education,Science, and Health Professions majors)</td>
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<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
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<td>MATH 1090 College Algebra for Business QL (3)</td>
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**Distribution Courses:**
- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities (any foreign language 202G/2020 course) 4
- Fine Arts 3
- Social/Behavioral Science 3
### National Security Studies, B.A.

**Careers**
- Managers, All Other
- Political Scientist
- Political Science Teachers, Postsecondary

**Requirements**
The BA/BS in National Security Studies (NSS) will provide an interdisciplinary program that prepares students for public and private sector national security careers through acquisition of subject matter expertise and analytical skills. This baccalaureate degree program will expose students to the wide variety of critically important security challenges and issues faced in the twenty-first century such as: terrorism and cyber security, nuclear proliferation and weapons of mass destruction, piracy and global pandemics, sovereignty and the use of force, and civil liberties and the rule of law. Students will also acquire skills such as critical thinking, writing, briefing, and analysis techniques specifically tailored for the national security field, but applicable in many others. Whether students are interested in counterterrorism, homeland security, intelligence gathering and analysis, foreign relations, law and politics, diplomacy, or international development, the NSS BA/BS will provide insight and skills needed to succeed in these professions.

**Total Program Credits:** 120

---

### National Security Studies, B.S.

**Careers**
- Managers, All Other
- Political Scientist
- Political Science Teachers, Postsecondary

**Requirements**
The interdisciplinary program prepares students for public and private sector national security careers through acquisition of subject matter expertise and analytical skills. This baccalaureate degree program will expose students to the wide variety of critically important security challenges and issues faced in the twenty-first century such as: terrorism and cyber security, nuclear proliferation and weapons of mass destruction, piracy and global pandemics, sovereignty and the use of force, and civil liberties and the rule of law. Students will also acquire skills such as critical thinking, writing, briefing, and analysis techniques specifically tailored for the national security field, but applicable in many others. Whether students are interested in counterterrorism, homeland security, intelligence gathering and analysis, foreign relations, law and politics, diplomacy, or international development, the NSS BA/BS will provide insight and skills needed to succeed in these professions.

**Total Program Credits:** 120

---

### Discipline Core Requirements: 42 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<td>POLS 1100</td>
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<td>NSS 2010</td>
<td>Introduction to National Security WE</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2100</td>
<td>Introduction to International Relations SS</td>
<td>3</td>
</tr>
<tr>
<td>NSS 3050</td>
<td>US Intelligence Community</td>
<td>3</td>
</tr>
<tr>
<td>NSS 301R</td>
<td>National Security Area Studies</td>
<td>3</td>
</tr>
<tr>
<td>NSS 4210</td>
<td>Law of War WE</td>
<td>3</td>
</tr>
<tr>
<td>NSS 4250</td>
<td>National Security Career Strategies</td>
<td>3</td>
</tr>
<tr>
<td>NSS 4300</td>
<td>Intelligence Cycle and Collections</td>
<td>3</td>
</tr>
<tr>
<td>NSS 4400</td>
<td>Statecraft and Strategy</td>
<td>3</td>
</tr>
<tr>
<td>NSS 4600</td>
<td>National Security Law</td>
<td>3</td>
</tr>
<tr>
<td>NSS 475R</td>
<td>Current Topics in National Security</td>
<td>3</td>
</tr>
<tr>
<td>POLS 3680</td>
<td>International Political Economy</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4500</td>
<td>International Conflict and Security</td>
<td>3</td>
</tr>
<tr>
<td>NSS 4990</td>
<td>National Security Capstone Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Requirements:** 42 Credits

- Complete 21 credits from the following:
  - NSS 3350  The Cold War--Culture and Politics
  - NSS 4800  Intelligence Analysis and Tradecraft (3)
  - NSS 481R  National Security Internship (1-9)
  - NSS 491R  Directed Readings and Special Projects in National Security (1-3)
  - CNST 4795 Civil Rights and Civil Liberties (3)
  - CJ 3340  Terrorism and the Criminal Justice System (3)
  - CJ 4160  Constitutional Criminal Rights (3)
  - HIST 3440 The History of World War I (3)
  - HIST 345G The History of World War II GI (3)
  - HIST 4140 Genocide in the Twentieth Century (3)
  - HIST 430G Violence and Social Conflict in Latin America GI (3)
  - ESMG 310G Introduction to Homeland Security GI (3)
  - IT 2700  Information Security Fundamentals (3)
  - MILS 259R Current Topics in Military Science (3)
  - MILS 4200 The Profession of Arms I (3)
  - MILS 4210 The Profession of Arms II (3)
  - PJST 3020 The Ethics of War and Peace (3)
  - PJST 3100 Introduction to Human Security (3)
  - PJST 3400 Conflict Transformation Resolution and Sustainable Peace (3)
  - POLS 3100 Survey of International Terrorism (3)
  - POLS 3150 US Presidency (3)
  - POLS 3210 World Diplomacy (3)
  - POLS 3400 American Foreign Policy (3)
  - POLS 3500 International Relations of the Middle East (3)

---

### Graduation Requirements:

1. Completion of a minimum of 120 or more semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above.
3. All discipline and core requirements must be passed with a C- or higher.
4. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. Completion of GE and specified departmental requirements.
6. Successful completion of at least one Global/Intercultural course.
7. Completion of 12 credit hours of course work from one language, to include the 1010, 1020, 2010, and 202G/2020 levels or transferred equivalent.

---

### Related Careers
- Managers, All Other
- Political Scientist
- Political Science Teachers, Postsecondary
<table>
<thead>
<tr>
<th>General Education Requirements:</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
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<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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</table>

Complete one of the following: 3

| MAT 1030                        | Quantitative Reasoning QL (3) |
| MAT 1035                        | Quantitative Reasoning with Integrated Algebra QL (6) |
| STAT 1040                       | Introduction to Statistics QL (3) |
| STAT 1045                       | Introduction to Statistics with Algebra QL (5) |
| MATH 1090                       | College Algebra for Business QL (3) |
| MATH 1050                       | College Algebra QL (4) (recommended for Business, Education, Science, and Health Professions majors) |
| MATH 1055                       | College Algebra with Preliminaries QL (5) |

Complete one of the following: 3

| HIST 1700                       | American Civilization AS (3) |
| or HIST 2700                    | US History to 1877 AS (3) |
| and HIST 2710                   | US History since 1877 AS (3) |

Complete the following:

| PHIL 2050                       | Ethics and Values IH | 3 |
| HLTH 1100                      | Personal Health and Wellness TE (2.0) |
| or EXSC 1097                   | Fitness for Life TE | 2 |

Distribution Courses:

| Biology                          | 3 |
| Physical Science                 | 3 |
| Additional Biology or Physical Science | 3 |
| Humanities                       | 3 |
| Fine Arts                        | 3 |
| Social/Behavioral Science        | 3 |

Discipline Core Requirements: 42 Credits

| POLS 1100                       | American National Government AS | 3 |
| NSS 2010                        | Introduction to National Security WE | 3 |
| POLS 2100                       | Introduction to International Relations SS | 3 |
| NSS 3050                       | US Intelligence Community | 3 |
| NSS 301R                       | National Security Area Studies | 3 |
| NSS 4210                       | Law of War WE | 3 |
| NSS 4250                       | National Security Career Strategies | 3 |
| NSS 4300                       | Intelligence Cycle and Collections | 3 |
| NSS 4400                       | Statecraft and Strategy | 3 |
| NSS 4600                       | National Security Law | 3 |
| NSS 475R                       | Current Topics in National Security | 3 |
| POLS 3680                      | International Political Economy | 3 |
| POLS 4500                      | International Conflict and Security | 3 |
| NSS 4990                       | National Security Capstone Seminar | 3 |

Elective Requirements: 43 Credits

Complete 28 credits from the following: 28

| NSS 3350                       | The Cold War--Culture and Politics | (3) |
| NSS 4800                       | Intelligence Analysis and Tradecraft | (3) |
| NSS 481R                       | National Security Internship | (1-9) |
| NSS 491R                       | Directed Readings and Special Projects in National Security | (1-3) |
| CNST 4795                      | Civil Rights and Civil Liberties | (3) |
| CJ 3340                        | Terrorism and the Criminal Justice System | (3) |
| CJ 4160                        | Constitutional Criminal Rights | (3) |
| HIST 3440                      | The History of World War I | (3) |
| HIST 345G                      | The History of World War II GI | (3) |
| HIST 4140                      | Genocide in the Twentieth Century | (3) |
| HIST 430G                      | Violence and Social Conflict in Latin America GI | (3) |
| ESMG 310G                      | Introduction to Homeland Security GI | (3) |
| IT 2700                        | Information Security Fundamentals | (3) |
| MILS 259R                      | Current Topics in Military Science | (3) |
| MILS 4200                      | The Profession of Arms I | (3) |
| MILS 4210                      | The Profession of Arms II | (3) |
| PJST 3020                      | The Ethics of War and Peace | (3) |
| PJST 3100                      | Introduction to Human Security | (3) |
| PJST 3400                      | Conflict Transformation Resolution and Sustainable Peace | (3) |
| POLS 3100                      | Survey of International Terrorism | (3) |
| POLS 3150                      | US Presidency | (3) |
| POLS 3210                      | World Diplomacy | (3) |
| POLS 3400                      | American Foreign Policy | (3) |
| POLS 3500                      | International Relations of the Middle East | (3) |
| POLS 3600                      | International Relations of East Asia WE | (3) |
| POLS 3610                      | International Organization WE | (3) |
| POLS 4610                      | International Law | (3) |
| Any other course approved by the NSS Director or Academic Advisor |

All other non-discipline electives 15

Graduation Requirements:

1. Completion of a minimum of 120 or more semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above.
3. All discipline and core requirements must be passed with a C- or higher.
4. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. Completion of GE and specified departmental requirements.
6. Successful completion of at least one Global/Intercultural course.
National Security Studies, B.S.

Careers

1. Acquire general knowledge about the U.S. national security system and process, including familiarity with the National Security Council, executive departments and agencies, presidential powers, congressional roles and powers, applicable international and domestic law, and current geographical and functional issues in the national security field.
2. Gain skills through class simulations and instruction in analytical thinking and reasoning, professional writing, and public speaking and presenting.
3. Apply both theoretical and practical approaches to complex national security problems, employing appropriate context to a decision-making framework.

Related Careers

- Managers, All Other
- Political Scientist
- Political Science Teachers, Postsecondary
Culinary Arts Institute

Culinary Arts Institute

The Culinary Arts Institute is in the Scott M. Smith College of Engineering. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Culinary Arts Institute, visit their website.

Culinary Arts Institute

DEPARTMENT CHAIR
WILSON, Troy Associate Professor

FACULTY
FALLIS, Diana Associate Professor
FRANCOM, Kenneth Assistant Professor
LEONARD, Todd Associate Professor
MCRAE, Joseph Assistant Professor
RODDY, Meghan Associate Professor
SPROUL, Peter Associate Professor
WILSON, Troy Associate Professor

Course Descriptions

Culinary Arts.......................................................... 577

Degrees & Programs

Culinary Arts, A.A.S.

Requirements

The Culinary Arts Institute (CAI) at UVU provides premier training for students interested in a career in professional cooking or baking. The program offers small, hands-on classes, focusing on individualized attention and development. The Culinary Arts Institute provides experience, through “engage” industry based learning.

The Culinary Arts Institutes comprehensive course of study covers several service areas; including not only learning how to cook and bake, but key requirement to success such as; customer service, business and finance management, marketing and advertising. CAI students learn how to apply these skills to a variety of food service establishments and operations. The practical and theoretical instruction covers such areas as food service safety and sanitation, professional dining room service, menu planning, nutrition and purchasing-storeroom management procedures.

While studying Culinary Arts at UVU, students gain a solid understanding of the food and beverage industry and learn the newest techniques in food and baking production using state-of-the-art equipment in our kitchen labs. The CAI also applies real world training as students run, full service, fine dining operations at Restaurant Forte, located in the UCCU Center and the Canyon Park Café located the Culinary Arts Institute in North Orem. These industry based learning models allow students to work with a wide range of foods while directly interacting with the public. In order to get the full breadth of running their own food service establishment, students work in a variety of functions including waiting tables, purchasing, preparing food, hosting, and supervising as the head chef.

Total Program Credits: 63

Matriculation Requirements:

1. Completion of the following courses with a grade of C- or better. CA 1160 Culinary Math; CA 1490 Food Service Sanitation (including current ServSafe certification); MAT 0990 Introductory Algebra; ENGH 1005 Literacies and Composition Across Contexts CC or ENGL 1010 Introduction to Academic Writing CC.
2. Acceptance into the Culinary Arts Institute by completion of application process (see Advisor for specific details).
3. Overall GPA: 2.0 or better.

General Education Requirements: 10 Credits

ENGLISH:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
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MATHMATICS:

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<td>FIN 1060</td>
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SOCIAL AND BEHAVIORAL SCIENCE

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<td>HM 1010</td>
<td>Introduction to Hospitality Industry</td>
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PHYSICAL EDUCATION/HEALTH/SAFETY OR ENVIRONMENT

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<thead>
<tr>
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<tbody>
<tr>
<td>CA 1120</td>
<td>Cooking Skills Development</td>
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</tr>
<tr>
<td>CA 1140</td>
<td>Professional Dining Room Services</td>
<td>1</td>
</tr>
<tr>
<td>CA 1150</td>
<td>Nutrition and Food Service</td>
<td>3</td>
</tr>
<tr>
<td>CA 1160</td>
<td>Culinary Math</td>
<td>1</td>
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<tr>
<td>CA 1170</td>
<td>Pastry and Baking Skills</td>
<td>5</td>
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<tr>
<td>CA 1180</td>
<td>Professional Kitchen Garde Manger</td>
<td>5</td>
</tr>
<tr>
<td>CA 1230</td>
<td>Professional Kitchen I Cooking</td>
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<tr>
<td>CA 1310</td>
<td>Purchasing and Storeroom Management</td>
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<tr>
<td>CA 1320</td>
<td>Culinary Management</td>
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<tr>
<td>CA 1490</td>
<td>Food Service Sanitation</td>
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</tr>
<tr>
<td>CA 2120</td>
<td>Professional Kitchen II Restaurant</td>
<td>5</td>
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<tr>
<td>CA 2130</td>
<td>Advanced Pastry Baking</td>
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<tr>
<td>CA 2450</td>
<td>Menu Design</td>
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<tr>
<td>CA 282R</td>
<td>Culinary Arts Internship</td>
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</table>

Graduation Requirements:

1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade below a "C-" in culinary arts or other discipline core courses.
3. Residency hours–minimum of 20 credit hours through course attendance at UVU.

Note: Students are responsible for completing all prerequisite courses.

Culinary Arts, A.A.S.

Careers

1. Demonstrate the ability to succeed in the professional kitchen environment.
2. Understand and recognize kitchen culture.
3. Overcome obstacles through proper procedure and critical thinking.

Related Careers

- Chefs and Head Cooks
- First-Line Supervisors of Food Preparation and Serving Workers
- Cooks, Private Household
- Cooks, Restaurant
Baking and Pastry, Certificate of Proficiency

Requirements

The Certificate of Proficiency in Baking and Pastry is offered by the Culinary Arts Institute at UVU and is available for all UVU students. This certificate will be available from the University for college students/adults looking for entry-level skills leading to direct employment in the baking and pastry field. The focus is to provide students an opportunity to obtain a certificate of proficiency in a Career and Technical Education (CTE) field that will stack into certificates and associate degrees at UVU.

Total Program Credits: 16

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>16 Credits</th>
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</thead>
<tbody>
<tr>
<td>CA 1140 Professional Dining Room Services</td>
<td>1</td>
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<tr>
<td>CA 1150 Nutrition and Food Service</td>
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<tr>
<td>CA 1160 Culinary Math</td>
<td>1</td>
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<tr>
<td>CA 1170 Pastry and Baking Skills</td>
<td>5</td>
</tr>
<tr>
<td>CA 1490 Food Service Sanitation</td>
<td>1</td>
</tr>
<tr>
<td>CA 2130 Advanced Pastry Baking</td>
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</table>

Graduation Requirements:

1. Completion of a minimum of 16 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade below a "C-" in culinary arts or other discipline core courses.
3. Residency hours—minimum of 4 credit hours through course attendance at UVU.

Entry Kitchen, Certificate of Proficiency

Careers

1. Prepare individuals to obtain entry level baking & pastry or cooking employment upon completion.
2. Understand basic cooking and baking & pastry technics, methods, terms, mise en place, sanitation, and safety.
3. Produce basic baking and pastry items including cookies, breads, custards, quick breads, pies, meringues, and pate a choux.
4. Produce basic culinary items including knife cuts, stocks, sauces, poultry fabrication, fish fabrication, and breakfast items.
5. Provide shortened additional and advanced training for individuals already working in the industry.

Related Careers

- Chefs and Head Cooks
- Bakers

Entry Kitchen, Certificate of Proficiency

Requirements

The Certificate of Proficiency in Entry Kitchen is offered by the Culinary Arts Institute at UVU and is available for all UVU students. This certificate will be available from the University for college students/adults looking for beginning skills leading to direct employment in a restaurant in the prep kitchen or bakery. The focus is to provide students an opportunity to obtain a certificate of proficiency in a Career and Technical Education (CTE) field that will stack into certificates and associate degrees at UVU.

Total Program Credits: 16

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>16 Credits</th>
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</thead>
<tbody>
<tr>
<td>CA 1120 Cooking Skills Development</td>
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<td>5</td>
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<tr>
<td>CA 1150 Nutrition and Food Service</td>
<td>3</td>
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<tr>
<td>CA 1160 Culinary Math</td>
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<tr>
<td>CA 1170 Pastry and Baking Skills</td>
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<tr>
<td>CA 1490 Food Service Sanitation</td>
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</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 16 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade below a "C-" in culinary arts or other discipline core courses.
3. Residency hours—minimum of 4 credit hours through course attendance at UVU.
Culinary Arts Institute

Professional Kitchen, Certificate of Proficiencyy

Careers

1. Understand basic and advanced cooking technics, methods, terms, mise en place, sanitation, and safety.
2. Produce basic culinary items including knife cuts, stocks, sauces, poultry fabrication, fish fabrication, and breakfast items.
3. Produce advanced culinary items including meat fabrication, advanced sauces, potatoes, starches, restaurant quality entrees and appetizers, and soups.
4. Prepare individuals to obtain culinary employment upon completion.
5. Provide shortened additional and advanced training for individuals already working in the industry.

Related Careers

• Chefs and Head Cooks
• Bakers
Cybersecurity Graduate Programs

The Cybersecurity Graduate Programs are in the Scott M. Smith College of Engineering. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Cybersecurity Graduate Programs, visit their website.

FACULTY
HAMDAN, Basil Associate Professor

Course Descriptions

Information Technology

Elective Requirements:
Choose 9 credits from the following:
- IT 6660 Advanced Network Forensics (3.0)
- IT 6750 Reverse Engineering and Malware Analysis (3.0)
- IT 6780 Secure Coding (3.0)
- INFO 6420 Web and Mobile Application Security (3.0)

or other departmental approved electives

Graduation Requirements:
1. Complete all courses with a grade of B- or better with an overall GPA of 3.0 or higher.
2. Courses must be finished within a five-year period. No courses will apply toward graduation that are older than five years.

Cybersecurity, M.S.

Careers

- Computer and Information Systems Managers
- Information Security Analysts
- Database Administrators
- Network and Computer Systems Administrators
- Computer Network Architects
- Computer Network Support Specialists

Related Careers

Requirements

The Master of Science in Cybersecurity is intended for individuals who desire to acquire additional cybersecurity knowledge, skills, and abilities in order to pursue new or advance existing careers in cybersecurity. The program is also designed for individuals who plan to pursue doctorate degrees in cybersecurity or related fields. The program focuses on the managerial and technical perspectives of cybersecurity through extensive use of case-studies and hands-on lab exercises.

Total Program Credits: 30

Matriculation Requirements:
1. Bachelor's degree with a GPA of at least 3.2 on a 4.0 scale from an accredited institution in one of the following fields: (Applicants who have bachelor's degrees in other fields may be admitted to the program if they have at least two years of technology or cybersecurity industry experience and have completed undergraduate courses in data communication, programming, and server administration with a grade of C+ or better. Students may also take a comprehensive exam on these topics to satisfy this admission requirement. These applications will be handled on a case-by-case basis.)
   a. Information Systems
   b. Information Security
   c. Information Technology
   d. Computer Science
2. Admission essay.
3. Completed application for admission.
4. Official transcripts from all attended institutions of higher education.
5. Two letters of recommendation

Discipline Core Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>IT 6300</td>
<td>Principles of Cybersecurity</td>
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<td>IT 6330</td>
<td>Cybersecurity Operations</td>
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<tr>
<td>IT 6350</td>
<td>Law/Ethics/ Privacy in Cybersecurity</td>
<td>3</td>
</tr>
<tr>
<td>IT 6370</td>
<td>Penetration Testing and</td>
<td>3</td>
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<td>IT 6740</td>
<td>Advanced Network Defense and Countermeasures</td>
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<td>IT 6770</td>
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<tr>
<td>IT 6900</td>
<td>Cybersecurity Capstone</td>
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</table>

Degrees & Programs

Cybersecurity, M.S.
Dance

The Dance department is in the School of the Arts. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Dance department, visit their website.

DEPARTMENT CHAIR
CAMPBELL, Monica Associate Professor

FACULTY
BANCHERO-KELLEHER, Angela Professor
BOYD, Tara Lecturer
CAMPBELL, Monica Associate Professor
DONOHUE, Sarah Assistant Professor
GERKE, Brian Assistant Professor
JOHNSON, Jamie Assistant Professor
MARKGRAF JACOBSON, Amy Professor
ORTEGA, Nichole Associate Professor
POTTS, Kaitlyn Lecturer
ST. JOHN, Christa Assistant Professor
WALLENTINE, Corinne Lecturer
WITT, Christopher Associate Professor
ZUBAL, Stefan Assistant Professor

Course Descriptions

Dance

Degrees & Programs

Dance, A.S.

Requirements

The Associate of Science in Dance is a two-year pre-major degree that provides students with basic foundational knowledge and skills in dance. Students are engaged in an array of courses to include Modern/Contemporary Dance, Ballet, and Jazz technique, improvisation, composition, dance conditioning, and somatic studies. Students pursuing the Bachelor degrees will also fulfill the requirements of the AS degree and are eligible to apply for it at graduation.

Total Program Credits: 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>33 Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
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<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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<td>ENGL 2010 Intermediate Academic Writing CC</td>
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<td>Complete one of the following:</td>
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<tr>
<td>MAT 1030 Quantitative Reasoning QL (3)</td>
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<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)</td>
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<tr>
<td>STAT 1040 Introduction to Statistics QL (3)</td>
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<tr>
<td>STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
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<th>Disciplines Core Requirements:</th>
<th>22 Credits</th>
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<tr>
<td>MATH 1050 College Algebra QL (recommended for Business, Education, Science, and Health Professions majors) (4)</td>
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<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
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<td>MATH 1090 College Algebra for Business QL (3)</td>
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<td>Complete one of the following:</td>
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<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
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<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
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<tr>
<td>HIST 1700 American Civilization AS (3)</td>
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<td>HIST 1740 US Economic History AS (3)</td>
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<td>POLS 1100 American National Government AS (3)</td>
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<td>Complete the following:</td>
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<td>PHIL 2050 Ethics and Values IH</td>
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<td>Distribution Courses:</td>
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<td>Humanities Distribution</td>
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<td>DANC 2110 Orientation to Dance FF</td>
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<td>Social/Behavioral Science</td>
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Choose one of the following: 1

DANC 150R Beginning Jazz Dance (1)
DANC 151R Intermediate Jazz Dance (1)
DANC 156R African Dance I (1)
DANC 158R Tap Dance I (1)
DANC 159R Hip Hop I (1)
DANC 160R Hip Hop II (1)
DANC 162R Polynesian Dance I (1)
DANC 170R American Social Dance I (1)

Elective Requirements: 5 Credits

Complete 2 credits from the following: 2

DANC 171R International Ballroom Dance I (1)
DANC 172R Latin Ballroom Dance I (1)
DANC 2100 Teaching Dance for Children FF (3)
Dance

DANCE 221R Pointe II (1)
DANCE 222R Allegro Dance II (1)
DANCE 225R Character Dance I (1)
DANCE 227R Ballet Technique II (3)
DANCE 2350 Dance and Technology (2)
DANCE 243R Modern/Contemporary Dance Technique and Theory Level II / Semester I (3)
DANCE 244R Modern/Contemporary Dance Technique and Theory Level II/ Semester II (3)
DANCE 247R Repertory (1)
DANCE 248R Special Topics In Dance (2)
DANCE 250R Advanced Jazz Dance (2)
DANCE 256R African Dance II (1)
DANCE 270R American Social Dance II (1)
DANCE 271R International Ballroom Dance II (1)
DANCE 272R Latin Ballroom Dance II (1)
DANCE 276R Ballroom Dance Company Back-Up Team (1)
DANCE 281R Internship in Dance I (1-3)

Complete 3 credits from any 1000 level or 2000 level course(s) 3

Graduation Requirements:
1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Dance, A.S.

Careers
1. Level I technical competency in Ballet, Modern, and Jazz Dance.
2. Level I competency in dance improvisation and composition.
3. Level II performance in Ballet, Modern, and/or Ballroom Dance.
5. Beginning Level competency in applying concepts of music to dance.
6. Written and oral communication skills specific to the field of dance.

Related Careers
• Art, Drama, and Music Teachers, Postsecondary
• Dancers
• Choreographers

Ballroom Dance, Certificate of Proficiency

Requirements
Promotes access to an appreciation for ballroom dance. Provides rigorous instruction in ballroom dance technique. Focuses on performance skills and teaching methods of ballroom dance. Prepares students to enter the field of ballroom dance as artists, teachers, choreographers, critical thinkers, problem solvers, and engaged human beings.

Total Program Credits: 19

Discipline Core Requirements: 19 Credits

<table>
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<tr>
<th>Course Code</th>
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<tr>
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<td>DANC 307R American Social Dance III</td>
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<tr>
<td>DANC 271R</td>
<td>International Ballroom Dance II</td>
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<td>or</td>
<td>DANC 371R International Ballroom Dance III</td>
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<td>DANC 471R</td>
<td>Latin Ballroom Dance IV</td>
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<td>or</td>
<td>DANC 372R Latin Ballroom Dance III</td>
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<td>DANC 472R</td>
<td>Latin Ballroom Dance IV</td>
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<td>or</td>
<td>DANC 3730 American Social Dance Teaching Methods</td>
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<td>DANC 474R</td>
<td>International Ballroom and Latin Theory</td>
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<td>or</td>
<td>DANC 376R Ballroom Dance Company Back-up Tour Team (Two semesters required)</td>
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<td>or</td>
<td>DANC 476R Ballroom Dance Company Tour Team</td>
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Graduation Requirements:
1. Complete a minimum of 19 programs credits.
2. Overall GPA 2.0 (C) or above.
3. Residency hours - minimum of 5 credit hours through course attendance at UVU.

Ballroom Dance, Certificate of Proficiency

Careers
1. Perform ballroom dance figures using proper technique.
2. Perform ballroom dance choreography with artistry.
3. Teach ballroom dance with proficiency.
4. Create choreographic works demonstrating skill in the choreographic principles.

Dance - Ballet Emphasis, B.F.A.

Requirements
The BFA in Dance with an emphasis in Ballet at Utah Valley University offers a rigorous program grounded in technique, performance, and choreography that is approached through a historical, somatic, scientific, and theoretical lens. The common core curriculum provides a broad knowledge base that supports the Ballet Program's specialized courses. Performance opportunities include- Repertory Ballet Ensemble (RBE), a pre-professional performing ensemble that has earned a notable reputation for their presentation of classical and contemporary choreography, Utah Metropolitan Ballet (UMB) a professional ballet
Dance company in residence at UVU, and Senior Capstone concerts, which culminates students' learning. The UVU Ballet Program provides ongoing opportunities for students to work with national and international guest artists. In addition, opportunities exist for students to participate in academic conferences and regional festivals, such as the American College Dance Association Conference, the Utah Conference of Undergraduate Research and the National Conference of Undergraduate Research.

**Total Program Credits: 120**

**Matriculation Requirements:**

1. Completion DANC 2110 Orientation to Dance FF, and DANC 2330 Improvisation with B- or higher.
   a. Ballet emphasis: Completion of DANC 227R Ballet Technique II (2 semesters), with a grade of B- or higher.
   b. Modern emphasis: Completion of DANC 143R Modern/Contemporary Dance Technique and Theory I/Semester I and DANC 144R Modern/Contemporary Dance Technique and Theory I/Semester II with a B- or higher.
2. Pass audition, interview, and portfolio review with faculty members.
3. Cumulative GPA of 2.75 or higher.

**General Education Requirements:**

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**Discipline Core Requirements:**

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**Emphasis Requirements:**

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**Emphasis Elective Requirements:**

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<td>DANC 151R</td>
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</table>
Majors and non-majors alike are integrated in the courses and for ballroom dance through its courses, performances, and outreach. Requirements

Dance - Ballroom Dance Emphasis, B.S.

Graduation Requirements:
1. Completion of a minimum of 120 semester credits; a minimum of 40 credits must be upper division.
2. Overall GPA of 2.0 (C) or above.
3. Overall GPA of 2.5 or above in all DANC courses.
4. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. Completion of GE and specified departmental requirements.
6. Successful completion of at least one Global/Intercultural course.

Dance - Ballet Emphasis, B.F.A.

Careers
1. Applicable knowledge base in somatic practices that enhance performance and technique including, Laban Movement Analysis, Bartenieff Fundamentals, Advanced Movement Analysis, and Dance Conditioning.
2. Level 2 technical competency in Character Dance, Jazz, and Modern.
3. Ability to generate original movement material and create well-crafted and meaningful choreography.
4. Pre-professional or professional performance skills.
5. Written and oral communication skills specific to the field of dance.
6. Fluency in a variety of traditional and contemporary ballet techniques and styles.
7. Level 4 Technical competency in Pointe (Women) or (Men’s class Men).
8. Advanced Level competency in applying concepts of music to Ballet and dance in general.

Related Careers
- Art, Drama, and Music Teachers, Postsecondary
- Dancers
- Choreographers

Dance - Ballroom Dance Emphasis, B.S.

Requirements
The Utah Valley Ballroom Program promotes access and appreciation for ballroom dance through its courses, performances, and outreach. Majors and non-majors alike are integrated in the courses and performances which creates a vibrant learning environment. The BS in Dance with an emphasis in Ballroom Dance degree program offers students the potential of having a broad foundation in dance, provided by the core class requirements, with a specialization in the technique, and performance skills in Ballroom Dance. Specialized course offerings include International, Latin, and American styles of ballroom dance as well as choreography, ballet styles, and pedagogy. Performance opportunities include the Ballroom Company comprised of the Ballroom Tour Team, the Back-up Ballroom Team, the Beginning Team and Capstone Concerts. Students have the opportunity to compete in regional, national and international competitions as solo group and as a team, participate in national and/or international touring.

Total Program Credits: 120

Matriculation Requirements:
1. Completion of DANC 270R American Social Dance II, DANC 271R International Ballroom Dance II, DANC 272R Latin Ballroom Dance II, DANC 2110 Orientation to Dance FF, and DANC 2330 Improvisation with a grade of B- or better.
2. Pass audition, interview, and portfolio review with faculty members.
3. Cumulative G.P.A. of 2.75 or higher.

General Education Requirements: 33 Credits
- ENGL 1010 Introduction to Academic Writing CC 3
- ENGH 1005 Literacies and Composition Across Contexts CC (5) 3
- ENGL 2010 Intermediate Academic Writing CC 3

Choose one of the following: 3
- MAT 1030 Quantitative Reasoning QL (3)
- MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)

Choose one of the following: 3
- HIST 2700 US History to 1877 AS (3)
- HIST 2710 US History since 1877 AS (3)
- HIST 1700 American Civilization AS (3)
- HIST 1740 US Economic History AS (3)
- POLS 1000 American Heritage SS (3)
- POLS 1100 American National Government AS (3)

Complete the following:
- PHIL 2050 Ethics and Values IH 3

Distribution Courses:
- BIOL 1010 General Biology BB (strongly recommended for Biology) 3
- DANC 2110 Orientation to Dance FF (Fine Arts) 3
- Humanities 3
- Physical Science 3
- Social/Behavioral Science 3
- ZOOL 1090 Introduction to Human Anatomy and Physiology BB (Fulfills additional Biology or Physical Science) 3

Discipline Core Requirements: 39 Credits
- DANC 127R Ballet Technique I 6
- or DANC 227R Ballet Technique II (3)
- DANC 143R Modern/Contemporary Dance Technique and Theory I/Semester I 3
### Dance

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<th>Course Title</th>
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**Emphasis Requirements:** 33 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DANC 270R</td>
<td>American Social Dance II</td>
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<tr>
<td>DANC 370R</td>
<td>American Social Dance III</td>
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<tr>
<td>DANC 271R</td>
<td>International Ballroom Dance II</td>
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<tr>
<td>DANC 371R</td>
<td>International Ballroom Dance III (1) (two semesters required)</td>
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<tr>
<td>DANC 471R</td>
<td>International Ballroom Dance IV (2) (two semesters required)</td>
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<td>DANC 272R</td>
<td>Latin Ballroom Dance II</td>
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<tr>
<td>DANC 372R</td>
<td>Latin Ballroom Dance III (1) (two semesters required)</td>
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<tr>
<td>DANC 472R</td>
<td>Latin Ballroom Dance IV (2) (two semesters required)</td>
<td>4</td>
</tr>
<tr>
<td>DANC 3730</td>
<td>American Social Dance Teaching Methods</td>
<td>2</td>
</tr>
<tr>
<td>DANC 4740</td>
<td>International Ballroom and Latin Theory</td>
<td>3</td>
</tr>
<tr>
<td>DANC 376R</td>
<td>Ballroom Dance Company Back-up Tour Team (2)</td>
<td>1</td>
</tr>
<tr>
<td>or DANC 476R</td>
<td>Ballroom Dance Company Tour Team (3)</td>
<td>1</td>
</tr>
<tr>
<td>MGMT 1010</td>
<td>Introduction to Business SS</td>
<td>3</td>
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<tr>
<td>DANC 3740</td>
<td>Ballroom Dance Choreography</td>
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<tr>
<td>DANC 3750</td>
<td>Studies in Ballroom Dance Styles</td>
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**Choose one of the following:** 1

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DANC 150R</td>
<td>Beginning Jazz Dance (1)</td>
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<td>DANC 151R</td>
<td>Intermediate Jazz Dance (1)</td>
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<tr>
<td>DANC 250R</td>
<td>Advanced Jazz Dance (1)</td>
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<tr>
<td>DANC 156R</td>
<td>African Dance I (1)</td>
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<tr>
<td>DANC 159R</td>
<td>Hip Hop I (1)</td>
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<tr>
<td>DANC 160R</td>
<td>Hip Hop II (1)</td>
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<tr>
<td>DANC 162R</td>
<td>Polynesian Dance I (1)</td>
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</table>

### Emphasis Elective Requirements:

9 Credits

**Choose 9 hours from the following:**

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tr>
<td>DANC 158R</td>
<td>Tap Dance I (1)</td>
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<td>DANC 2100</td>
<td>Teaching Dance for Children FF (3)</td>
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<tr>
<td>DANC 222R</td>
<td>Allegro Dance II (1)</td>
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<td>DANC 227R</td>
<td>Ballet Technique II (3)</td>
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<td>DANC 2350</td>
<td>Dance and Technology (2)</td>
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<tr>
<td>DANC 248R</td>
<td>Special Topics In Dance (2)</td>
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<tr>
<td>DANC 256R</td>
<td>African Dance II (1)</td>
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<td>DANC 276R</td>
<td>Ballroom Dance Company Back Up Team (1)</td>
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<tr>
<td>DANC 281R</td>
<td>Internship in Dance I (1-3)</td>
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<tr>
<td>DANC 3400</td>
<td>Dance in the Elementary School XF (2)</td>
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<tr>
<td>DANC 346R</td>
<td>Synergy Dance Company (3)</td>
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<tr>
<td>DANC 3610</td>
<td>Intermediate Dance Conditioning and Injury Prevention (2)</td>
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<tr>
<td>DANC 376R</td>
<td>Ballroom Dance Company Back-up Tour Team (2)</td>
<td></td>
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<tr>
<td>or DANC 476R</td>
<td>Ballroom Dance Company Tour Team (3)</td>
<td></td>
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<tr>
<td>DANC 365R</td>
<td>Advanced Fundamentals of Movement (2)</td>
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<tr>
<td>EXSC 3700</td>
<td>Exercise Physiology</td>
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<tr>
<td>and EXSC 3705</td>
<td>Exercise Physiology Laboratory (4)</td>
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<td>PES 2400</td>
<td>Sports Injuries (2)</td>
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<td>HLTH 1055</td>
<td>Pilates I CoreMax Training (1)</td>
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<td>HLTH 1057</td>
<td>Power Yoga (1)</td>
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<td>THEA 3541</td>
<td>Costume Design I (3)</td>
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<tr>
<td>THEA 3545</td>
<td>Costume Design I Lab (1)</td>
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<tr>
<td>Any DANC course not previously taken</td>
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<td></td>
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</tbody>
</table>

Complete 6 credits from any courses 1000 level or higher (Students must have 40 upper division credit hours to graduate.) 6

**Notes:**

1. Either course must be taken twice

### Graduation Requirements:

1. Completion of a minimum of 120 semester credits; a minimum of 40 credits must be upper division.
2. Overall GPA of 2.0 (C) or above.
3. Overall GPA of 2.5 or above in all DANC courses.
4. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. Completion of GE and specified departmental requirements.
6. Successful completion of at least one Global/Intercultural course.
Dance - Ballroom Dance Emphasis, B.S.

**Careers**

1. Perform ballroom dance with artistry demonstrating advanced level technical competency.
2. Create choreographic works of artistic merit demonstrating skills in choreographic elements, principles, and structures of dance.
3. Write articulately using dance language demonstrating perceptive, reflective, and analytical knowledge and skills.
4. Demonstrate proficiency in teaching ballroom dance.

**Related Careers**

- Art, Drama, and Music Teachers, Postsecondary
- Dancers
- Choreographers

Dance - Modern Dance Emphasis, B.F.A.

**Requirements**

The Modern/Contemporary Dance Program in UVU’s Department of Dance is a rigorous program that provides dance training for BFA students with a strong foundation in technique and choreography. This daily physical practice merges with serious scholarly study of dance in its historical, somatic, theoretical, scientific, pedagogical, and cultural contexts. The rigorous course study of the BFA in Modern/Contemporary Dance prepares the next generation of dance artists and scholars for myriad career opportunities. The Modern/Contemporary Dance Program provides opportunities for students to work with nationally and internationally recognized guest artists on a yearly basis, to participate in study abroad programs, and to work alongside faculty mentors in scholarly and creative research.

Performance opportunities include Contemporary Dance Ensemble (CDE) a pre-professional level modern dance company and upper division course; Synergy Dance Company, which produces student and guest artists work in concert; and Senior Capstone Concerts. The Modern/Contemporary Program participates annually in the American College Dance Association conference and has been selected to perform at the national festival held at the Kennedy Center for the Performing Arts in Washington D.C. Dance majors also participate in several academic conferences and regional festivals including the Utah Conference of Undergraduate Research and the National Conference of Undergraduate Research.

Students graduating from the UVU Modern/Contemporary Dance Program are prepared to enter the world as artists, teachers, performers, choreographers, critical thinkers, problem solvers, and engaged human beings.

**Total Program Credits: 120**

### Discourse on Content

This daily physical practice merges with serious scholarly study of dance in its historical, somatic, theoretical, scientific, pedagogical, and cultural contexts. The rigorous course study of the BFA in Modern/Contemporary Dance prepares the next generation of dance artists and scholars for myriad career opportunities. The Modern/Contemporary Dance Program provides opportunities for students to work with nationally and internationally recognized guest artists on a yearly basis, to participate in study abroad programs, and to work alongside faculty mentors in scholarly and creative research.

**Distribution Courses:**

- **BIOL 1010** General Biology BB (required prerequisite for ZOOL 1090)
- **DANC 2110** Orientation to Dance FF (Fine Arts)
- **DANC 227R** Ballet Technique I (3)
- **DANC 2330** Improvisation
- **DANC 2340** Composition
- **DANC 256G** Dance as a Cultural Practice I GI
- **DANC 265R** Fundamentals of Movement
- **DANC 2670** Introduction to Laban Studies
- **DANC 3140** Dance Production and Lighting
- **DANC 3630** Dance as a Cultural Practice II WE
- **DANC 3680** Dance Kinesiology
- **DANC 4350** Senior Capstone I WE
- **DANC 4360** Senior Capstone II WE
- **DANC 4880** Current Issues in Dance

**Related Careers**

- Art, Drama, and Music Teachers, Postsecondary
- Dancers
- Choreographers

**Emphasis Requirements:**

- **DANC 243R** Modern/Contemporary Dance Technique and Theory Level I/Semester I
- **DANC 244R** Modern/Contemporary Dance Technique and Theory Level II/Semester II

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**Course Catalog 2023-2024**

Utah Valley University
DANCE 3160 Dance Accompaniment 2
DANC 3330 Modern Dance Workshop 2
DANC 3350 Choreography 2
DANC 3400 Dance in the Elementary School XF 2

DANC 341R Modern/Contemporary Dance Technique and Theory Level III/ Semester I 3
DANC 342R Modern/Contemporary Dance Technique and Theory Level III/ Semester II 3
DANC 3450 Modern/Contemporary Dance Teaching Methods 3
DANC 346R Synergy Dance Company (Both courses may be taken or one of them repeated for 6 credits) 6

or
DANC 446R Contemporary Dance Ensemble (3)

DANC 365R Advanced Fundamentals of Movement 2

or
DANC 3670 Movement Analysis (3)

DANC 441R Modern/Contemporary Dance Technique and Theory Level IV/ Semester I 3
DANC 442R Modern/Contemporary Dance Technique and Theory Level IV/ Semester II 3

Choose one of the following: 1

DANC 150R Beginning Jazz Dance (1)
DANC 151R Intermediate Jazz Dance (1)
DANC 250R Advanced Jazz Dance (1)
DANC 156R African Dance I (1)
DANC 159R Hip Hop I (1)
DANC 160R Hip Hop II (1)
DANC 162R Polynesian Dance I (1)

Emphasis Elective Requirements: 7 Credits

Choose 7 credits from the following list:

DANC 158R Tap Dance I (1)
DANC 170R American Social Dance I (1)
DANC 171R International Ballroom Dance I (1)
DANC 172R Latin Ballroom Dance I (1)
DANC 248R Special Topics in Dance (2)
DANC 256R African Dance II (1)
DANC 327R Ballet Technique III (3)
DANC 3610 Intermediate Dance Conditioning and Injury Prevention (2)
DANC 365R Advanced Fundamentals of Movement (2)
DANC 3670 Movement Analysis (3)
DANC 442R Modern/Contemporary Dance Technique and Theory Level IV/ Semester II (3)

DANC 446R Contemporary Dance Ensemble (3)

Any DANC course not previously taken

Complete 3 credits from any Department (Students must have 40 upper division credit hours to graduate.) 3

Graduation Requirements:

1. Completion of a minimum of 120 semester credits; a minimum of 40 credits must be upper division.
2. Overall GPA of 2.0 (C) or above.
3. Overall GPA of 2.5 or above in all DANC courses.
4. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. Completion of GE and specified departmental requirements.
6. Successful completion of at least one Global/Intercultural course.

Dance - Modern Dance Emphasis, B.F.A.

Careers

1. Perform dance with artistry demonstrating advanced level technical competency.
2. Create choreographic works of artistic merit and personal voice demonstrating skills in choreographic elements, principles, and structures of dance.
3. Integrate diverse theoretical dance knowledge and skills in the writing, performance and creation of dance.
4. Write articulately using dance language demonstrating perceptive, reflective, and analytical knowledge and skills.
5. Demonstrate proficiency in writing and teaching of modern dance lesson plans.

Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Dancers
- Choreographers

Dance Education, B.S.

Requirements

The Dance Education program is dedicated in preparing students to teach, create, and perform dance at the highest level. Students participate in a rigorous Bachelor’s of Science degree program focusing on developing exceptional dance artists and outstanding dance teachers dedicated to the art, craft, creativity, and teaching of dance. Students are encouraged to participate in the dance and education communities through guest artist, workshops, and conferences (regional, national, and international). Rigorous coursework includes various dance techniques, choreography, performance, dance history, world dance, kinesiology, somatic studies, pedagogy, music and production. Students receive their secondary certification with an option to receive their elementary endorsement in dance. Dance Education majors have numerous career options. to include the public and private school settings, private studios, community centers, and higher education. Students are able to pursue both the BFA in Modern/Contemporary Dance and a BS in Dance Education.

Performance opportunities include Contemporary Dance Ensemble (CDE) a pre-professional level modern dance company and upper division course; Synergy Dance Company, which produces student and guest artists work in concert; and Senior Capstone Concerts. The Dance Education Program participates annually in the festival of the American College Dance Association, and has been selected to perform at the national festival held at the Kennedy Center for the Performing Arts in Washington D.C. In addition, it also participates in several academic conferences and regional festivals including the Utah
Dance Conference of Undergraduate Research and the National Conference of Undergraduate Research.

Total Program Credits: 125

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<thead>
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<th>Matriculation Requirements:</th>
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<tbody>
<tr>
<td><strong>Dance Department Matriculation Requirements</strong></td>
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<tr>
<td>1. Completion of DANC 143R Modern/Contemporary Dance Technique and Theory I/Semester I, DANC 144R Modern/Contemporary Dance Technique and Theory I/Semester II, DANC 161R Dance Conditioning, DANC 2110 Orientation to Dance FF, and DANC 2330 Improvisation with B- or higher.</td>
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<tr>
<td>2. Pass audition, interview, and portfolio review with faculty members.</td>
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<tr>
<td><strong>Education Department matriculation requirements:</strong></td>
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<tr>
<td>1. ENGL and MATH QL courses must have a grade C or higher.</td>
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<tr>
<td>2. GPA of 3.0 or higher with no grade lower than a C in content area courses.</td>
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<tr>
<td>3. Completion of all General Education requirements and 70% of content area courses.</td>
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<td>4. Pass LiveScan Criminal Background Check.</td>
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<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
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<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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<td>ENGL 2010 Intermediate Academic Writing CC</td>
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<td><strong>Complete one of the following:</strong></td>
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<td>MAT 1030 Quantitative Reasoning QL (3)</td>
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<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (5)</td>
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<tr>
<td>STAT 1040 Introduction to Statistics QL (3)</td>
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<tr>
<td>STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
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<tr>
<td>MATH 1050 College Algebra QL (4) (recommended for Business, Education, Science, and Health Professions majors)</td>
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<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
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<td>MATH 1090 College Algebra for Business QL (3)</td>
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<td>HIST 1700 American Civilization AS (3)</td>
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<td>HIST 2700 US History to 1877 AS (3)</td>
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<td>and HIST 2710 US History since 1877 AS (3)</td>
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<td>HIST 1740 US Economic History AS (3)</td>
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<td>POLS 1000 American Heritage SS (3)</td>
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<td>POLS 1100 American National Government AS (3)</td>
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<td><strong>Complete the following:</strong></td>
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<td>PHIL 2050 Ethics and Values IH</td>
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**Distribution Courses:**

| BIOL 1010 General Biology BB | 3 |
| DANC 2110 Orientation to Dance FF | 3 |

Humanities Distribution 3

Physical Science 3

Social/Behavioral Science 3

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<th>Discipline Core Requirements:</th>
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<td>ZOOL 1090 Introduction to Human Anatomy and Physiology BB (Strongly recommended for additional Biology or Physical Science)</td>
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<td>DANC 127R Ballet Technique I (3)</td>
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<tr>
<td>or DANC 227R Ballet Technique II</td>
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<tr>
<td>DANC 143R Modern/Contemporary Dance Technique and Theory I/Semester I</td>
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<tr>
<td>DANC 144R Modern/Contemporary Dance Technique and Theory I/Semester II</td>
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<tr>
<td>DANC 161R Dance Conditioning</td>
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<td>DANC 2330 Improvisation</td>
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<tr>
<td>DANC 2340 Composition</td>
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<td>DANC 243R Modern/Contemporary Dance Technique and Theory Level II / Semester I</td>
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<td>DANC 244R Modern/Contemporary Dance Technique and Theory Level II / Semester II</td>
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<td>DANC 2670 Introduction to Laban Studies</td>
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<td>DANC 270R American Social Dance II</td>
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<td>DANC 3140 Dance Production and Lighting</td>
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<td>DANC 3160 Dance Accompaniment</td>
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<td>DANC 3330 Modern Dance Workshop</td>
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<td>DANC 3350 Choreography</td>
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<td>DANC 3400 Dance in the Elementary School XF</td>
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<td>DANC 341R Modern/Contemporary Dance Technique and Theory Level III/ Semester I</td>
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<td>DANC 342R Modern/Contemporary Dance Technique and Theory Level III/ Semester II</td>
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<td>DANC 3450 Modern/Contemporary Dance Teaching Methods</td>
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<td>DANC 346R Synergy Dance Company</td>
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<td>DANC 3630 Dance as a Cultural Practice II WE</td>
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<td>DANC 3680 Dance Kinesiology</td>
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<td>DANC 4350 Senior Capstone I WE</td>
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<tr>
<td>DANC 4360 Senior Capstone II WE</td>
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<tr>
<td>DANC 4430 Dance Teaching Practicum (Dance Education majors take DANC 4430 in place of EDSC 4200.)</td>
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<td><strong>Complete 1 credit from the following:</strong></td>
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<tr>
<td>DANC 159R Hip Hop I (1)</td>
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<td>DANC 160R Hip Hop II (1)</td>
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<td>DANC 170R American Social Dance I (1)</td>
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<tr>
<td>DANC 171R International Ballroom Dance I (1)</td>
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<tr>
<td>DANC 172R Latin Ballroom Dance I (1)</td>
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</table>

**Education Courses:** Must be completed with a grade of B- or higher.
### Dance Education, B.S.

**Careers**

1. Perform dance with artistry demonstrating an intermediate/advanced level technical competency.
2. Create choreographic works of artistic merit and personal voice demonstrating skills in choreographic elements, principles, and structures of dance.
3. Integrate diverse theoretical dance knowledge and skills in the writing, performance, and creation of dance.
4. Write articulately using dance language demonstrating perceptive, reflective, and analytical knowledge and skills.
5. Demonstrate proficiency in writing and teaching of unit and lesson plans in the public schools.
6. Demonstrate proficient skills and knowledge necessary to create a vibrant and artistic secondary dance program based on state and national standards.

**Related Careers**

- Art, Drama, and Music Teachers, Postsecondary
- Dancers
- Choreographers

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### Graduation Requirements:

1. Completion of a minimum of 125 semester credits, a minimum of 40 credits must be upper division.
2. Overall Grade of 3.0 (B) or above with no grade lower than a C or better in major required content courses and no grade lower than a B- in Licensure and Methods courses.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>EDSC 1010</td>
<td>Introduction to Education</td>
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<td>EDSC 3000</td>
<td>Educational Psychology</td>
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<tr>
<td>EDSC 325G</td>
<td>Equitable Technology Integration GI</td>
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<tr>
<td>EDSP 340G</td>
<td>Exceptional Students GI</td>
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<tr>
<td>EDSC 4250</td>
<td>Classroom Management II</td>
<td>2</td>
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<tr>
<td>EDSC 4440</td>
<td>Content Area Literacies</td>
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<tr>
<td>EDSC 445G</td>
<td>Multicultural Instruction ESL GI</td>
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<tr>
<td>EDSC 455G</td>
<td>Secondary Curriculum Instruction and Assessment GI</td>
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<tr>
<td>EDSC 4850</td>
<td>Student Teaching Secondary</td>
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<tr>
<td>EDSC 4990</td>
<td>Teacher Performance Assessment Project WE</td>
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</table>
Developmental Mathematics

Mathematical and Quantitative Reasoning

The Mathematical and Quantitative Reasoning department is in the College of Science. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Department of Mathematical and Quantitative Reasoning, visit their website.

Mathematical and Quantitative Reasoning department

Course Descriptions

Mathematics Developmental

762
Digital Media

Digital Media

The Digital Media department is in the Scott M. Smith College of Engineering. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Digital Media department, visit their website.

Digital Media department

DEPARTMENT CHAIR
BROWN, Kim Associate Professor

FACULTY
ANDERSEN, Duane Associate Professor
ANDERSON, Thor Associate Professor
BROWN, Kim Associate Professor
CARD, Arlen Associate Professor
CHENEY, Paul Associate Professor
CLAYTON, Marty J. Associate Professor
ESMAY, Rodayne Professor
HARPER, Michael F. Associate Professor
HATCH, Daniel Associate Professor
HEDRICK, Emily Assistant Professor
LANTZ, Clayton Associate Professor
MACKENZIE, Jenny Assistant Professor
NIBLEY, Alex Professional In Residence
PETERSON, Owen Associate Professor
ROMRELL, Anthony Associate Professor
WISLAND, Michael G. Associate Professor

Course Descriptions

Digital Media.................................................................627

Degrees & Programs

Digital Audio, A.A.S.

Requirements

The UVU AAS in Digital Audio is a powerful gateway into the fascinating world of album recording and mixing, location and post-production sound for film and video, audio restoration and forensics, live sound, radio production, gaming, and audio hardware and software design. Students will use industry-leading equipment including SSL, Audient, AVID ProTools, Universal Audio, Neumann, Waves, Tube Tech, AKG, and many others. By graduation, each student will have produced and engineered numerous music, ADR, Foley, and sound effects sessions, including professional-level mixes; will have their choice of many other areas of audio expertise; and will be professional employment-ready.

Total Program Credits: 64

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>36 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
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</tr>
<tr>
<td>MATH 1050 College Algebra QL (4)</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 1055 College Algebra with Preliminaries QL (5)</td>
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Complete one of the following: 3

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>POLS 1000 American Heritage SS (3)</td>
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<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
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<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
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<tr>
<td>HIST 1700 American Civilization AS (3)</td>
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<tr>
<td>HIST 1740 US Economic History AS (3)</td>
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<tr>
<td>POLS 1100 American National Government AS (3)</td>
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Complete the following: 3

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<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100 Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097 Fitness for Life TE (2)</td>
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Distribution Courses

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Biology</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
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<tr>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
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</tbody>
</table>

Discipline Core Requirements: 28 Credits

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>DGM 1110 Digital Media Essentials I</td>
<td>4</td>
</tr>
<tr>
<td>MUSC 1100 Fundamentals of Music FF</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1700 Descriptive Acoustics PP</td>
<td>3</td>
</tr>
<tr>
<td>DGM 2130 Digital Audio Essentials</td>
<td>3</td>
</tr>
<tr>
<td>DGM 2410 Core Recording</td>
<td>3</td>
</tr>
<tr>
<td>DGM 2430 Core Mixing</td>
<td>3</td>
</tr>
<tr>
<td>DGM 2440 Production Sound for Cinema</td>
<td>3</td>
</tr>
<tr>
<td>DGM 2460 Podcast and Radio Production</td>
<td>3</td>
</tr>
<tr>
<td>DGM 2481 Digital Audio Restoration</td>
<td>3</td>
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</table>

Graduation Requirements:

1. Completion of a minimum of 64 semester credits.
2. Residency hours—minimum of 20 credit hours through course attendance at UVU.
3. Students must have a minimum AGGREGATE GPA of 2.0 (C letter grade) or higher (including core, electives, and GE)
4. Students must have an individual GPA in EACH CORE COURSE in the Audio AAS program of 2.5 (B minus) or higher.

Digital Audio, A.A.S.

Careers

1. Calculate answers to practical audio math problems using formulas and principles of physics.
2. Choose and place microphones correctly for a broad range of recording applications.
3. Route electronic connections for proper signal flow to maximize clean audio and eliminate noise.
4. Connect audio components correctly, accounting for level, impedance, and format.
5. Route signal paths in the digital domain to properly insert digital signal processors.
6. Set parameters on compression and EQ processing competently.
7. Implement level and pan settings for effective audio mixing and outputs.

**Related Careers**
- Audio and Video Equipment Technicians
- Sound Engineering Technicians

**Digital Cinema Production, A.A.S.**

**Requirements**
Digital cinema is the design, development, and delivery of digital cinema content through the process of pre-production, production, and post-production. The curriculum integrates digital cinema mediums to entertain, educate, and communicate ideas and information. This program provides motivated and dedicated students the opportunity to work with professionally active faculty members committed to the future of digital disciplines. The Associate of Applied Science in Digital Cinema will provide students with employable skills and a pathway to further education.

**Total Program Credits: 63**

**General Education Requirements:** 24 Credits

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC (3)</td>
<td></td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC (3)</td>
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**MATHEMATICS - Complete one of the following:** 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (3)</td>
<td></td>
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**Complete the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH (3)</td>
<td></td>
</tr>
<tr>
<td>or PHIL 205G</td>
<td>Ethics and Values IH GI</td>
<td></td>
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</table>

**HUMANITIES/FINE ARTS** 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any approved Humanities/Fine Arts Distribution</td>
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<td></td>
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</table>

**SOCIAL/BEHAVIORAL SCIENCE** 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any approved Social/Behavioral Science Distribution</td>
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<td></td>
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</tbody>
</table>

**BIOLOGY/PHYSICAL SCIENCE** 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any approved Biology/Physical Science Distribution</td>
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</table>

**Total Program Credits:** 63

**Elective Requirements:** 5 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Complete 5 credits of department or advisor approved lower division coursework</td>
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**Graduation Requirements:**
1. Completion of a minimum of 63 semester credits.
2. Residency hours--minimum of 20 credit hours through course attendance at UVU.
3. Completion of GE and specified departmental requirements.

**Footnote:**
1- THEA 2311 (Film History I) recommended
2 - MGMT 1010 (Introduction to Business) recommended

**Digital Cinema Production, A.A.S.**

**Careers**

1. Write a Project Needs Analysis for a documentary or corporate production.
2. Participate in a production team to produce a short documentary or training film.
3. Tag a short narrative script.
4. Edit, polish and color grade a short documentary/NLE film using NLE keystrokes.
5. Identify the classic sequential structure of a feature film script.
6. Identify what produces tension in a scene.
7. Identify a set up and payoff in a script.
8. Prepare camera assets with a one lite color grade for AVID & Premiere editorial.
9. Photograph still shots using high contrast lighting and golden section composition that tell a story.
10. Shoot a sequence of outdoor motion shots using magic hour lighting and golden section composition that tell a story.
11. Shoot a sequence of studio motion shots using hard light and golden section composition that tell a story.
12. Set up a circuit from power source using distribution boxes to lamp head and make the lamp head work. 13) Set up C-Stand and folding stand safely with predetermined load. 14) Identify range of lighting and grip stands. 15) Identify the seven qualities of light. 16) Calculate the load on a circuit with given light fixture or fixtures.
Digital Media

Related Careers
- Art, Drama, and Music Teachers, Postsecondary
- Producers and Directors
- Camera Operators, Television, Video, and Motion Picture
- Film and Video Editors

Digital Communication Technology, A.A.S.

Requirements
Digital Media (DGM) fuses both fundamental theory and practical application in the production of electronically-generated content to be delivered via internet, radio and television, digital cinema, computer games, animation and cinematic visual effects, as well as for emerging technologies such as mobile computing (hand-held computing devices). The curriculum integrates these digital mediums to entertain, educate, and communicate ideas through meaningful human interaction. DGM provides motivated and dedicated students the opportunity to work closely with professionally active faculty members committed to the future of the digital disciplines. Students in Digital Media may earn either a Certificate of Proficiency in Digital Cinema, Associate in Applied Science Degree, or a Bachelor of Science Degree. Areas of emphasis include: Digital Communication Technology, Audio Production, Digital Motion Picture Production, Gaming and Animation, Internet Technologies.

Total Program Credits: 63

General Education Requirements: 17 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010  Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005  Literacies and Composition Across Contexts CC (5)</td>
<td>3</td>
</tr>
</tbody>
</table>

Mathematics:
- MAT 1010  Intermediate Algebra | 4

Humanities/Fine Arts/Foreign Language:
Choose one of the following:
- PHIL 2050  Ethics and Values IH (3)

Social and Behavioral Science:
- Any approved Behavioral Science, Fine Arts, or Foreign Language Distribution Course | 3

Biology or Physical Science:
- Any approved Biology or Physical Science Distribution Course | 3

Physical Education/Health/Safety or Environment:
Choose one of the following:
- HLTH 1100  Personal Health and Wellness TE (2)

Discipline Core Requirements: 16 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DGM 1110  Digital Media Essentials I</td>
<td>4</td>
</tr>
<tr>
<td>DGM 1520  Digital Cinema Production I</td>
<td>3</td>
</tr>
<tr>
<td>DAGV 1200  3D Modeling Essentials</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 1600  Web Essentials</td>
<td>3</td>
</tr>
<tr>
<td>DGM 2130  Digital Audio Essentials</td>
<td>3</td>
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</table>

Elective Requirements: 30 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete 30 credits from approved DGM electives (see advisor)</td>
<td>30</td>
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</tbody>
</table>

Graduation Requirements:
1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Digital Communication Technology, A.A.S.

Careers
1. Demonstrate a strong familiarity and proficiency with professional software for video editing, audio production and editing, basic animation, and web development.
2. Demonstrate understanding and competency with the production pipeline of at least two of the following: Digital Cinema Production, Digital Audio Production, Web & App Development, and Animation.
3. Demonstrate mastery over media file formats, conversion protocols, and storage frameworks.
4. Use critical thinking skills to solve industry-related problems on real-world projects and in collaboration with other students.
5. Carry out applied learning activities focused on the production and post production process for digital media productions.

Related Careers
- Web Developers
- Multimedia Artists and Animators
- Graphic Designers

Web Design and Development, A.A.S.

Requirements
Web design and development fuses together the design, development, and delivery of rich media content through the medium of the internet to hand held mobile devices as well as desktop computers. The curriculum integrates these digital mediums to entertain, educate, and communicate ideas and information through meaningful human interaction. This program provides motivated and dedicated students the opportunity to work with professionally active faculty members committed to the future of digital disciplines. The Associate of Applied Science in Web Design and Development will provide students with employable skills and a pathway to further education.

Total Program Credits: 63

General Education Requirements: 17 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010  Introduction to Academic Writing CC</td>
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</tr>
<tr>
<td>or ENGH 1005  Literacies and Composition Across Contexts CC (5)</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following:
- MAT 1030  Quantitative Reasoning QL (3)
- MAT 1035  Quantitative Reasoning with Integrated Algebra QL (6)
- STAT 1040  Introduction to Statistics QL (3)
- STAT 1045  Introduction to Statistics with Algebra QL (5)
- MATH 1050  College Algebra QL (4)
Digital Media

The curriculum integrates these digital mediums to entertain, educate, and communicate ideas through meaningful human interaction. DGM closely with professionally active faculty members committed to the future of the digital disciplines. Students in Digital Media may earn either a Certificate of Proficiency in Digital Cinema, Associate in Applied Science Degree, or a Bachelor of Science Degree. Areas of emphasis include: Digital Communication Technology, Audio Production, Digital Motion Picture Production, Gaming and Animation, Internet Technologies.

Graduation Requirements:
1. Completion of a minimum of 15 credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours -- minimum of 4 credit hours through course attendance at UVU.

Digital Cinema, Certificate of Proficiency

Careers

1. PRODUCTION: Student is able to implement the processes, strategies, and protocols required for the production and creation of filmed media content, from entry level (production assistant) to advanced (producer and production manager), based on standard industry practices.
2. DIRECTION: Student is able to fill the role of the director in creating and executing the aesthetic look and shooting plan of a screenplay in collaboration with department heads, actors, key crew members, and the post production team.
3. STORYTELLING: Student is able to implement their understanding of the psychological foundations of how storytelling functions through various technologies, how to apply the storytelling principles to create effective communication using a variety of media and in a variety of key production roles including producer, director, writer and editor.
4. CINEMATOGRAPHY: Student is able to perform the role of the cinematographer as technician, manager and storyteller and has acquired hands-on skills with grip, electric and camera equipment, and understands how these skills are applied to workflows in pre-production, principle photography and post-production.
5. EDITING: Student can carry out applied learning activities focused on the post production process for digital media productions (documentaries, narrative, short format and corporate industrial).
6. POST-PRODUCTION: Student understands and shows practical skills for the post workflows from asset management through final project delivery including client/director collaboration, technical and aesthetic editing skills, mastery of software tools, color correction and delivery of the product in required industry standard formats.

Related Careers
- Web Developers
- Multimedia Artists and Animators
- Graphic Designers

Web Design and Development, A.A.S.

Careers

1. Markup a website using semantically appropriate HTML5 tags.
2. Use media queries and mobile first design to create responsive page templates.
4. Implement user experience design strategies to build applications and web sites that lead to a call to action.
5. Design simple and understandable user interfaces and interactions for desktop, mobile, and web.
6. Design and build digital video, audio, photographic, and textual assets.
7. Demonstrate the ability to be a contributing member of a team.

Digital Media, Certificate of Proficiency

Requirements

Digital Media (DGM) fuses both fundamental theory and practical application in the production of electronically-generated content to be delivered via internet, radio and television, digital cinema, computer games, animation and cinematic visual effects, as well as for emerging technologies such as mobile computing (hand-held computing devices). The curriculum integrates these digital mediums to entertain, educate, and communicate ideas through meaningful human interaction. DGM provides motivated and dedicated students the opportunity to work
Digital Media, Certificate of Proficiency

Requirements

This certificate is designed to provide high school students an opportunity to obtain a certificate of proficiency while still enrolled in high school, which not only gives initial employability skills, but also stacks into associate degrees at UVU.

Total Program Credits: 16

General Education Requirements 6 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contexts CC (5.0)</td>
<td></td>
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</tbody>
</table>

Complete one of the following: (Course must be completed with grade ‘C’ or higher.) 3 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6.0)</td>
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<td>STAT 1040</td>
<td>Introduction to Statistics QL (3)</td>
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<td>MATH 1050</td>
<td>College Algebra QL (4.0)</td>
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<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5.0)</td>
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<td>MATH 1090</td>
<td>College Algebra for Business QL (3.0)</td>
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Discipline Core Requirements: 10 Credits

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<tbody>
<tr>
<td>DGM 1110</td>
<td>Digital Media Essentials I</td>
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Choose 6 credits from one of the following categories: 6 Credits

Animation and Games

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<tbody>
<tr>
<td>DAGV 1400</td>
<td>Scripting Essentials (3)</td>
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<td>DAGV 1300</td>
<td>Animation Essentials (2)</td>
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<td>DAGV 130L</td>
<td>Animation Essentials Lab (1)</td>
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Digital Cinema

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>DGM 1061</td>
<td>Digital Cinema Editing I (3.0)</td>
</tr>
<tr>
<td>DGM 1520</td>
<td>Digital Cinema Production I (3)</td>
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</table>

Digital Audio

<table>
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<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>DGM 2130</td>
<td>Digital Audio Essentials (3.0)</td>
</tr>
<tr>
<td>DGM 2460</td>
<td>Podcast and Radio Production (3.0)</td>
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</table>

Web Development

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>DWDD 1600</td>
<td>Web Essentials (3)</td>
</tr>
<tr>
<td>DWDD 1400</td>
<td>Digital Design Essentials (3)</td>
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</table>

Graduation Requirements:

1. Completion of a minimum of 16 semester credits.
2. Overall grade point average of 2.5 or above.
3. All DGM courses must be completed with grade ‘C’ or higher.
4. Residency hours—minimum of 5 credit hours through course attendance at UVU.

Digital Media, Certificate of Proficiency

Careers

1. Develop critical thinking skills to solve industry-related problems.

2. Describe the industry opportunities for Digital Media.
3. Create media for use in an introductory level project.
4. Produce a introductory level project using current industry tools.

Related Careers

- Web Developers
- Multimedia Artists and Animators
- Graphic Designers

Digital Media, Minor

Requirements

Digital Media (DGM) fuses both fundamental theory and practical application in the production of electronically-generated content to be delivered via internet, radio and television, digital cinema, computer games, animation and cinematic visual effects, as well as for emerging technologies such as mobile computing (hand-held computing devices). The curriculum integrates these digital mediums to entertain, educate, and communicate ideas through meaningful human interaction. DGM provides motivated and dedicated students the opportunity to work closely with professionally active faculty members committed to the future of the digital disciplines. Students in Digital Media may earn either a Certificate of Proficiency in Digital Cinema, Associate in Applied Science Degree, or a Bachelor of Science Degree. Areas of emphasis include: Digital Communication Technology, Audio Production, Digital Motion Picture Production, Gaming and Animation, Internet Technologies.

Total Program Credits: 22

Discipline Core Requirements: 7 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGM 1110</td>
<td>Digital Media Essentials I</td>
<td>4</td>
</tr>
</tbody>
</table>

Complete one course from the following: 3 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGM 1520</td>
<td>Digital Cinema Production I (3)</td>
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</tr>
<tr>
<td>DWDD 1600</td>
<td>Web Essentials (3)</td>
<td></td>
</tr>
<tr>
<td>DGM 2130</td>
<td>Digital Audio Essentials (3)</td>
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</tr>
<tr>
<td>DAGV 1200</td>
<td>3D Modeling Essentials (3)</td>
<td></td>
</tr>
</tbody>
</table>

Elective Requirements: 15 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete 15 credits from 1000 and 2000 level DGM courses.</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Overall grade point average of 2.5 GPA in all discipline core and elective courses with no grade lower than a C-.
2. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.

Digital Media, Minor

Careers

1. Demonstrate a strong familiarity and proficiency with professional software for video editing, audio production and editing, basic animation, and web development.
2. Demonstrate understanding and competency with the production pipeline of at least two of the following: Digital Cinema Production, Digital Audio Production, Web & App Development, and Animation.
3. Demonstrate mastery over media file formats, conversion protocols, and storage frameworks.
4. Use critical thinking skills to solve industry-related problems on real world projects and in collaboration with other students.
5. Carry out applied learning activities focused on the production and post production process for digital media productions.
Related Careers

- Web Developers
- Multimedia Artists and Animators
- Graphic Designers

Writing for Entertainment Media, Minor

Requirements

Students take the full advanced writing curriculum currently offered in the Digital Cinema Program, allowing non-majors to gain a credential in writing storytelling scripts for a variety of media without having to take the full Digital Cinema curriculum.

Total Program Credits: 24

Matriculation Requirements:

1. Admitted to a bachelor degree program at UVU.
2. Cinema Portfolio Review acceptance OR Writing for Entertainment Minor acceptance and University Advanced Standing.

Discipline Core Requirements: 24 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGM 1510</td>
<td>Film Production Analysis</td>
<td>3</td>
</tr>
<tr>
<td>DGM 450R</td>
<td>Story Editing for Digital Media (Must be taken a minimum of twice.)</td>
<td>6</td>
</tr>
<tr>
<td>DGM 457R</td>
<td>Storytelling for Digital Media III (Must be taken three times)</td>
<td>9</td>
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</tbody>
</table>

Complete six hours from the following electives: 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGM 1520</td>
<td>Digital Cinema Production I (3) (Elective)</td>
<td></td>
</tr>
<tr>
<td>DGM 2110</td>
<td>Digital Cinema Production II (3) (Elective)</td>
<td></td>
</tr>
<tr>
<td>DGM 3580</td>
<td>Digital Cinema Directing Workshop I (3) (Elective)</td>
<td></td>
</tr>
<tr>
<td>DGM 3590</td>
<td>Documentary I (3) (Elective)</td>
<td></td>
</tr>
<tr>
<td>DGM 4511</td>
<td>Film Production Analysis II (3) (Elective)</td>
<td></td>
</tr>
<tr>
<td>THEA 1033</td>
<td>Acting I FF (3) (Elective)</td>
<td></td>
</tr>
<tr>
<td>THEA 314G</td>
<td>Global Cinema History GI (Elective)</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:

Writing for Entertainment Media, Minor

Careers

1. Students learn the technical aspects of creating scripts for professional media productions, including script formatting, writing for camera, audio and other technical elements in order to create scripts that are easily producible in a professional production.
2. Students learn Film Production Analysis to enable them to understand storytelling principles of structure, character development, audience involvement and how different types of stories vary.
3. Students learn story editing, allowing them to be able to analyze scripts written by other writers, identify storytelling strengths and challenges, and work with other writers on improving their scripts, as well as being able to apply the same analytical tools to their own work.

4. Students graduate having completed a full long-form media script (i.e. a storytelling media experience requiring a minimum of 45 minutes), which can serve as a strong entree into the world of professional media writing.
5. Students gain knowledge of the business and economic aspects of professional media writing.

Related Careers

- Web Developers
- Multimedia Artists and Animators
- Graphic Designers

Animation and Game Development, B.S.

Requirements

The BS in Animation and Game Development focuses on contemporary, industry-standard, and technology oriented processes and procedures.

Total Program Credits: 120

Matriculation Requirements:

1. Portfolio review acceptance:
   a. After completing first-year courses students may submit a portfolio to one of three Animation and Game Development Tracks. Students are accepted for matriculation into their chosen track based on the quality of work found in their portfolio. A student may only apply twice for program matriculation.
   b. Acceptance criteria varies for the three academic tracks available. Please meet with an academic advisor to learn more.

General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Context CC (5)</td>
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</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
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</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (3)</td>
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</tr>
<tr>
<td>or</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4) (recommended for Business, Education, Science, and Health Professions majors)</td>
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</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (3) (recommended for Business majors)</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>and</td>
<td>US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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</tr>
</tbody>
</table>
Complete the following:

- PHIL 2050 Ethics and Values IH (3)

or

- PHIL 205G Ethics and Values IH GI (3)

- HLTH 1100 Personal Health and Wellness TE (2)

or

- EXSC 1097 Fitness for Life TE (2)

**Distribution Courses**

- Biology (3)
- Physical Science (3)
- Additional Biology or Physical Science (3)
- Humanities Distribution (3)
- Fine Arts Distribution (3)
- Social/Behavioral Science (3)

**Discipline Core Requirements:** 40 Credits

- DAGV 1200 3D Modeling Essentials (3)
- DAGV 2210 3D Modeling and Animation (3)
- DAGV 2230 Animation I (2)
- DAGV 223L Animation Lab (1)
- DAGV 2240 Character Development (3)
- DAGV 2330 Introduction to Rigging (2)
- DAGV 233L Introduction to Rigging Lab (1)
- DAGV 3350 Animation and Game Production I (2)
- DAGV 335L Animation and Game Lab I (1)
- DAGV 3360 Advanced Character Rigging (3)
- DAGV 3450 Animation and Game Production II (2)
- DAGV 345L Animation and Game Lab II (1)
- DAGV 3470 Animation Story Development WE (3)
- DAGV 490R Senior Capstone (6)
- DGM 3110 Corporate Issues in Digital Media WE (3)
- DGM 312G Digital Media for Intercultural Communication GI (3)
- DWDD 301R Digital Lecture Series (1)

or

- DAGV 301R Digital Lecture Series

**Animation and Game Development Tracks:** 45 Credits

**2D Track Requirements:**

- Take the following courses:
  - DGM 1110 Digital Media Essentials I (4)
  - DAGV 1300 Animation Essentials (2)
  - DAGV 130L Animation Essentials Lab (1)
  - DAGV 1500 Concept Essentials (3)
  - DAGV 1600 Studio Technology Essentials (3)
  - DAGV 2340 Digital Storyboarding (3)
  - DAGV 2480 Introduction to Compositing (3)

**3D Track Requirements:**

- Take the following courses:
  - DAGV 1400 Scripting Essentials (3)
  - CS 1400 Fundamentals of Programming (3)
  - DAGV 2440 Scripting for Animation and Games I (3)
  - DAGV 2460 Game Development I (3)
  - DAGV 2470 Game Development II (3)
  - DAGV 2480 Introduction to Compositing (3)
  - DAGV 3440 Scripting for Animation and Games II (3)
  - DAGV 3460 Game Development III (3)
  - DAGV 4450 Advanced Technical Direction II (3)
  - DAGV 4550 Performance Animation (3)

- Complete 9 additional approved credits.

**Extended Reality and Simulations Track Requirements:**

- Take the following courses:
  - DWDD 1400 Digital Design Essentials (3)
  - DWDD 1420 Communicating Digital Design WE (3)
  - DWDD 2420 Media Formats and Outputs (3)
  - DGM 1645 Mixed Reality Essentials (2)
  - DAGV 2460 Game Development I (3)
  - DAGV 2470 Game Development II (3)
  - DAGV 2480 Game Development III (3)
  - DGM 2245 Mixed Reality Experiences I (3)
  - DGM 260R Special Topics in Animation and Game Development (Visual Scripting) (3)
  - DGM 270R Special Topics in Web Design and Development (Materials, Textures, and Lighting) (3)
  - DGM 3261 Mixed Reality Experiences II (3)
  - DGM 4261 Mixed Reality Studio (3)

- Complete 13 additional approved credits (9 credits must be upper-division).

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits, with a minimum of 40 credit hours of upper division coursework.
2. A minimum of 2.5 GPA in all discipline core courses with no grade lower than a C- required for graduation. To qualify for the portfolio review, DGM courses must be completed with a grade of B- or higher.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements, which includes a portfolio review and acceptance into the degree.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched (WE) courses.

Footnotes:
1-ENGL 220G Introduction to Literature HH GI or ENGL 2130 Science Fiction HH recommended
2-THEA 1023 Introduction to Film FF recommended

Animation and Game Development, B.S.

CAREERS
1. Demonstrate competent application of the Principles of Animation.
2. Rig bipedal and quadrupedal characters for animation and/or interactive titles.
3. Create hybrid (2D and 3D) assets (layouts, backgrounds, characters, props, lights, cameras, scripting, and effects) for film, games, and/or simulations.
4. Composite and render constructed assets into unified scenes.
5. Contribute in a team setting, i.e. plan, schedule, follow through, and communicate, to produce and submit a capstone title demonstrating competent understanding of the animation discipline.

Related Careers
- Web Developers
- Multimedia Artists and Animators
- Graphic Designers

Digital Audio, B.S.

Requirements
The BS in Digital Audio allows students to study, without distraction, the physics and mathematics of audio engineering, basic audio-related electronics, recording tools and techniques, mixing tools and techniques, mastering tools and techniques, radio production, room acoustics and design, production sound for film and television, post-production sound, audio restoration (archival, historical, and forensic), and the business and marketing practices of the audio industry.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>36 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>ENGH 1005 Literacies and Composition Across Contexts CC (5.0)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5.0)</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following:
- HIST 2700 US History to 1877 AS (3.0)
- HIST 2710 US History since 1877 AS (3.0)
- HIST 1700 American Civilization AS (3.0)
- HIST 1740 US Economic History AS (3.0)
- POLS 1000 American Heritage SS (3.0)
- POLS 1100 American National Government AS (3.0)

Complete the following:
- PHIL 2050 Ethics and Values IH | 3 |
- HLTH 1100 Personal Health and Wellness TE | 2 |
| or EXSC 1097 Fitness for Life TE (2) |

Distribution Courses
- Biology |
- Physical Science |
- Additional Biology or Physical Science |
- Humanities |
- Fine Arts 1 |
| Social/Behavioral Science 2 |
- 71 Credits |
- DGM 1110 Digital Media Essentials I | 4 |
- MUSC 1100 Fundamentals of Music FF | 3 |
- PHYS 1700 Descriptive Acoustics PP | 3 |
- DGM 2130 Digital Audio Essentials | 3 |
- DGM 2140 Audio Hardware I | 3 |
- DGM 2440 Production Sound for Cinema | 3 |
- DGM 2460 Podcast and Radio Production | 3 |
- DGM 2481 Digital Audio Restoration | 3 |
- DGM 2410 Core Recording | 3 |
- DGM 2430 Core Mixing | 3 |
- DGM 2490 Digital Audio Workstation Training I | 3 |
- DGM 2491 Digital Audio Workstation Training II | 3 |
- DGM 3110 Corporate Issues in Digital Media WE | 3 |
- DGM 312G Digital Media for Intercultural Communication GI | 3 |
- DWDD 301R Digital Lecture Series | 1 |
- DGM 3220 Digital Media Project Management | 3 |
- DGM 3410 Advanced Recording | 3 |
- DGM 3460 Live Sound Reinforcement | 3 |
- DGM 3420 Advanced Mixing | 3 |
- DGM 3440 Sound for Games I | 3 |
- DGM 4000 Writing for Digital Audio WE | 3 |
- DGM 4310 Senior Capstone I | 3 |
- DGM 4410 Senior Capstone II | 3 |
- DGM 4430 Audio Mastering | 3 |

Elective Requirements: 13 Credits
Take 13 credits from the following including 6 upper division credits.
- MUSC 1010 Introduction to Music FF (3.0)
- MUSC 1110 Music Theory I (3.0)
- MUSC 1120 Music Theory II (3.0)
- DWDD 1600 Web Essentials (3.0)
- DGM 240R Special Topics in Digital Audio (1-4)
- DAGV 1200 3D Modeling Essentials (3)
- DWDD 2410 Interaction Design (3.0)
- DGM 281R Internship (1-8)
Digital Media

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGM 340R</td>
<td>Advanced Topics in Digital Audio (1-4)</td>
</tr>
<tr>
<td>DGM 3430</td>
<td>Recording Studio Design Principles and Practices (3.0)</td>
</tr>
<tr>
<td>DGM 3481</td>
<td>Advanced Audio Restoration and Forensics (3.0)</td>
</tr>
<tr>
<td>DGM 3490</td>
<td>Digital Audio Workstation Training III (3)</td>
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<tr>
<td>DGM 3491</td>
<td>Digital Audio Workstation Training IV (3)</td>
</tr>
<tr>
<td>DGM 350R</td>
<td>Advanced Topics in Digital Motion Picture Production (1-4)</td>
</tr>
<tr>
<td>DGM 481R</td>
<td>Internship (1-8)</td>
</tr>
</tbody>
</table>

Or other advisor approved electives

Graduation Requirements:

1. Completion of a minimum of 120 semester credits.
2. A minimum of 2.5 GPA in all discipline core courses with no grade lower than a C- required for graduation. To qualify for the portfolio review, DGM courses must be completed with a grade of B- or higher.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements, which includes a portfolio review and acceptance into the degree.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched (WE) courses.

Total Program Credits: 120

Digital Cinema Production, B.S.

Requirements

The BS degrees in Digital Cinema Production trains students in the development, production, and post-production process of filmed media content for a variety of platforms. Using a hands-on, practical approach, students learn the tools, equipment, technologies, software, and protocols that are used on sets and post-production facilities, large and small, throughout the world. The curriculum focuses on character driven stories and how to use emerging digital technologies to enhance storytelling. Advanced students can choose to focus their study on different skill-sets within the digital cinema production process including, but not limited to, directing for digital cinema, writing for digital cinema, cinematography, production, post-production, documentary, and sports broadcasting.

Digital Audio, B.S.

Careers

1. Demonstrate in practicum a thorough knowledge of foundational principles of acoustics, math, signal processing, and all their practical counterparts.
2. Show proficiency in choosing and using appropriate microphones, preamplifiers, and other equipment to record sound in the most accurate and effective way for the application at hand.
3. Produce both technically competent and emotionally powerful mixes of recorded media using the signal processing algorithms and devices listed in item four, below.
4. Demonstrate both technical and artistic command of all signal processors, including, without limitation, equalization, compression, expansion, gate, synthetic and IR reverberation, delay lines, chorus, phase shifting, flange, distortion and harmonic generation, and restoration and forensic processors such as noise recognition and cleaning, de-clicking, hiss removal, and utility processors such as file compression algorithms and format conversion tools.
5. Build a portfolio of recordings and mixes involving a broad range of non-musical subjects as well as a broad range of musical styles.
6. Demonstrate full competency in multimedia collaboration, including film and television production and post-production audio.
7. Show a competent understanding of room and space acoustics, including formal and informal ways of treating a recording or mixing environment to increase sonic accuracy and eliminate standing waves and frequency nulls.
8. Demonstrate an ongoing understanding of the current professional equipment of the audio industry, including both outboard and foundational gear, and also “in the box” solutions for the all-digital environment.
9. Have advanced proficiency in either audio mastering or audio restoration and forensics.

Related Careers

- Web Developers
- Multimedia Artists and Animators
- Graphic Designers

Footnote

1 MUSC 1010 Introduction to Music FF recommended.
2 MGMT 1010 Introduction to Business recommended
**Digital Media**

**Distribution Courses**

- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution 3
- Fine Arts Distribution 1
- Social/Behavioral Science 2

**Discipline Core Requirements:** 62 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DGM 1061</td>
<td>Digital Cinema Editing I</td>
<td>3</td>
</tr>
<tr>
<td>DGM 1500</td>
<td>Intro to Digital Cinema</td>
<td>1</td>
</tr>
<tr>
<td>DGM 1510</td>
<td>Film Production Analysis</td>
<td>3</td>
</tr>
<tr>
<td>DGM 1520</td>
<td>Digital Cinema Production I</td>
<td>3</td>
</tr>
<tr>
<td>CINE 217G</td>
<td>Race Class and Gender in U S Cinema GI HH</td>
<td>3</td>
</tr>
<tr>
<td>or DGM 312G</td>
<td>Digital Media for Intercultural Communication GI (3)</td>
<td></td>
</tr>
<tr>
<td>or RUS 367G</td>
<td>History of Russian Film GI (3)</td>
<td></td>
</tr>
<tr>
<td>or RUS 416G</td>
<td>Contemporary Russian Cinema GI (3)</td>
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</tr>
<tr>
<td>DGM 2110</td>
<td>Digital Cinema Production II</td>
<td>3</td>
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<tr>
<td>DGM 2130</td>
<td>Digital Audio Essentials</td>
<td>3</td>
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<tr>
<td>CINE 2312</td>
<td>Film History II</td>
<td>3</td>
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<tr>
<td>DGM 2320</td>
<td>Digital Photography and Compositing I</td>
<td>3</td>
</tr>
<tr>
<td>DGM 2440</td>
<td>Production Sound for Cinema</td>
<td>3</td>
</tr>
<tr>
<td>DGM 2540</td>
<td>Cinematography I</td>
<td>3</td>
</tr>
<tr>
<td>DGM 2570</td>
<td>Storytelling for Digital Media I WE</td>
<td>3</td>
</tr>
<tr>
<td>or THEA 2742</td>
<td>Scriptwriting for the Screen WE (3)</td>
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<tr>
<td>DGM 2661</td>
<td>Visualization for Digital Cinema-Pre-Directing</td>
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<tr>
<td>DGM 302R</td>
<td>Digital Cinema Production Lecture Series-CineSkype</td>
<td>1</td>
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<tr>
<td>DGM 3530</td>
<td>Digital Cinema Production Management</td>
<td>3</td>
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<tr>
<td>DGM 3540</td>
<td>Cinematography II</td>
<td>3</td>
</tr>
<tr>
<td>DGM 3550</td>
<td>Producing I</td>
<td>3</td>
</tr>
<tr>
<td>DGM 3560</td>
<td>Digital Cinema Editing II</td>
<td>3</td>
</tr>
<tr>
<td>DGM 3570</td>
<td>Storytelling for Digital Media II WE</td>
<td>3</td>
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<tr>
<td>DGM 3580</td>
<td>Digital Cinema Directing Workshop I</td>
<td>3</td>
</tr>
<tr>
<td>DGM 4310</td>
<td>Senior Capstone I</td>
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</tr>
<tr>
<td>DGM 4410</td>
<td>Senior Capstone II</td>
<td>3</td>
</tr>
</tbody>
</table>

**Recommended Tracks:** 18 Credits

Complete at least 18 upper-division credits from the following Recommended Tracks.

**POST-PRODUCTION**

Following this track students must complete three additional upper-division elective credits.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>DGM 2340</td>
<td>Output and Color for Digital Cinema I (3)</td>
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<tr>
<td>DGM 2510</td>
<td>Visual Effects for Digital Cinema I (3)</td>
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</table>

**OR**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCPR 2995</td>
<td>Virtual Reality for Digital Cinema Storytelling</td>
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</tr>
<tr>
<td>DGM 2490</td>
<td>Digital Audio Workstation Training I (3)</td>
<td></td>
</tr>
<tr>
<td>DGM 3061</td>
<td>Professional NLE Certification (3)</td>
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</tr>
<tr>
<td>DGM 4510</td>
<td>Visual Effects for Digital Cinema II (3)</td>
<td></td>
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<tr>
<td>or DGM 3545</td>
<td>Advanced Editing for Mixed Reality Content (3)</td>
<td></td>
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<tr>
<td>DGM 2491</td>
<td>Digital Audio Workstation Training II (3)</td>
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<tr>
<td>DGM 456R</td>
<td>Digital Cinema Editing III (3)</td>
<td></td>
</tr>
<tr>
<td>DGM 4560</td>
<td>Output and Color for Digital Cinema II (3)</td>
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</table>

**PRODUCTION**

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ACC 3000</td>
<td>Financial Managerial and Cost Accounting Concepts (3)</td>
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<tr>
<td>DGM 3520</td>
<td>Digital Cinema Production III (3)</td>
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<tr>
<td>DGM 450R</td>
<td>Story Editing for Digital Media (3)</td>
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<td>DGM 4550</td>
<td>Producing II (3)</td>
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</tr>
<tr>
<td>DGM 4511</td>
<td>Film Production Analysis II (3)</td>
<td></td>
</tr>
<tr>
<td>or THEA 3625</td>
<td>Development and Fundraising for the Arts (3)</td>
<td></td>
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<tr>
<td>FIN 3100</td>
<td>Principles of Finance (3)</td>
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</table>

**PRODUCTION (Pre-MBA Track)**

In order to qualify for the 4+1 BS/MBA students must complete all of the following:

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 3000</td>
<td>Financial Managerial and Cost Accounting Concepts (3)</td>
<td></td>
</tr>
<tr>
<td>DGM 3520</td>
<td>Digital Cinema Production III (3)</td>
<td></td>
</tr>
<tr>
<td>DGM 450R</td>
<td>Story Editing for Digital Media (3)</td>
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<tr>
<td>DGM 4550</td>
<td>Producing II (3)</td>
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<tr>
<td>FIN 3100</td>
<td>Principles of Finance (3)</td>
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<tr>
<td>or IM 2600</td>
<td>Spreadsheet Applications (3)</td>
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</tr>
<tr>
<td>MGMT 2340</td>
<td>Business Statistics I (3)</td>
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**CINEMATOGRAPHY**

Following this track students must complete three additional upper-division elective credits.

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<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DGM 2340</td>
<td>Output and Color for Digital Cinema I (3)</td>
<td></td>
</tr>
<tr>
<td>DCPR 2995</td>
<td>Virtual Reality for Digital Cinema Storytelling</td>
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</tr>
<tr>
<td>DGM 3320</td>
<td>Digital Photography and Compositing II (3)</td>
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<tr>
<td>DGM 4530</td>
<td>Special Topics-Cinematography Masterworks (3)</td>
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</tr>
<tr>
<td>DGM 454R</td>
<td>Cinematography III (3)</td>
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<tr>
<td>DGM 4560</td>
<td>Output and Color for Digital Cinema II (3)</td>
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**DIRECTING FOR DIGITAL CINEMA**

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>DGM 3520</td>
<td>Digital Cinema Production III (3)</td>
<td></td>
</tr>
<tr>
<td>DGM 450R</td>
<td>Story Editing for Digital Media (3)</td>
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Digital Media

<table>
<thead>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DGM 4511</td>
<td>Film Production Analysis II</td>
<td>(3)</td>
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<tr>
<td>DGM 458R</td>
<td>Digital Cinema Directing Workshop II</td>
<td>(3)</td>
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<tr>
<td>THEA 3113</td>
<td>Acting for Film</td>
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<tr>
<td>THEA 3614</td>
<td>Directing Actors for the Screen</td>
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**WRITING FOR DIGITAL CINEMA**

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<tr>
<td>DGM 3520</td>
<td>Digital Cinema Production III</td>
<td>(3)</td>
</tr>
<tr>
<td>DGM 450R</td>
<td>Story Editing for Digital Media</td>
<td>(3)</td>
</tr>
<tr>
<td>DGM 4511</td>
<td>Film Production Analysis II</td>
<td>(3)</td>
</tr>
<tr>
<td>DGM 457R</td>
<td>Storytelling for Digital Media III</td>
<td>(3)</td>
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<tr>
<td>THEA 3741</td>
<td>Script Writing II</td>
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<tr>
<td>THEA 4741</td>
<td>Scriptwriting III</td>
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or
THEA 3241  Storytelling (3)

**SPORTS BROADCASTING PRODUCTION**

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<tr>
<td>DGM 2340</td>
<td>Output and Color for Digital Cinema I</td>
<td>(3)</td>
</tr>
<tr>
<td>DGM 351R</td>
<td>Digital Broadcasting (3) (Take for up to three semesters, equalling nine credits)</td>
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<tr>
<td>DGM 4560</td>
<td>Output and Color for Digital Cinema II</td>
<td>(3)</td>
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<tr>
<td>DGM 454R</td>
<td>Cinematography III</td>
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or
DGM 3590  Documentary I (3)

**DOCUMENTARY**

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<td>DCPR 2995</td>
<td>Virtual Reality for Digital Cinema Storytelling</td>
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<tr>
<td>DGM 3590</td>
<td>Documentary I</td>
<td>(3)</td>
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<tr>
<td>CINE 418R</td>
<td>Sundance Documentary Film</td>
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or
THEA 3110  Non Fiction Cinema History (3)

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<tr>
<td>DGM 450R</td>
<td>Story Editing for Digital Media</td>
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<tr>
<td>DGM 456R</td>
<td>Digital Cinema Editing III</td>
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or
DGM 454R  Cinematography III (3)

DGM 459R  Documentary II (3)

Elective Requirements: 5

Complete an additional 5 credits from the above Recommended Tracks or from the list below.

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ART 1050</td>
<td>Photography I FF</td>
<td>(3)</td>
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<tr>
<td>ART 1790</td>
<td>Dark Room Techniques</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 1820</td>
<td>Interior Space Design</td>
<td>(3)</td>
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<tr>
<td>ART 1830</td>
<td>Residential Interior Design</td>
<td>(3)</td>
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<tr>
<td>ART 2700</td>
<td>Photography II</td>
<td>(3)</td>
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<tr>
<td>ART 2720</td>
<td>Color Photography</td>
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<tr>
<td>ART 3740</td>
<td>Fine Art Photography</td>
<td>(3)</td>
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<tr>
<td>ARTH 2710</td>
<td>Prehistoric Through Gothic Art History FF</td>
<td>(3)</td>
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or
ARTH 271H  Prehistoric Through Gothic Art History FF

ARTH 2720  Renaissance Through Contemporary Art History FF

or
ARTH 272H  Renaissance Through Contemporary Art History FF

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ARTH 272H</td>
<td>Renaissance Through Contemporary Art History FF</td>
<td>(3)</td>
</tr>
<tr>
<td>ARTH 271H</td>
<td>Prehistoric Through Gothic Art History FF</td>
<td>(3)</td>
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</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ARTH 2720</td>
<td>Renaissance Through Contemporary Art History FF</td>
<td>(3)</td>
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Graduation Requirements:

- **ARTH 272H**  Renaissance Through Contemporary Art History FF
- **ARTH 3200**  The History of Photography (3)
- **CINE 2150**  Critical Introduction to Cinema Studies HH (3)
- **CINE 312R**  National Cinema History (3)
- **DGM 1110**  Digital Media Essentials I (4)
- **DGM 281R**  Internship (1-8)
- **DGM 3110**  Corporate Issues in Digital Media WE (3)
- **DGM 3261**  Mixed Reality Experiences II (3)
- **DGM 340R**  Advanced Topics in Digital Audio (1-4)
- **DGM 3490**  Digital Audio Workstation Training III (3)
- **DGM 3491**  Digital Audio Workstation Training IV (3)
- **DGM 4261**  Mixed Reality Studio (3)
- **DGM 481R**  Internship (1-8)
- **DWDD 3530**  Immersive Experiences II (3)
- **THEA 1033**  Acting I FF (3)
- **THEA 1223**  Makeup I (3)
- **THEA 2513**  Introduction to Design for Stage and Screen (3)
- **THEA 1513**  Stagecraft I (2)
- **THEA 1514**  Stagecraft I Lab (1)
- **THEA 2203**  Costume Construction I (3)
- **THEA 2204**  Costume Construction I Lab (1)
- **THEA 2513**  Introduction to Design for Stage and Screen (3)
- **THEA 2514**  Introduction to Design for Stage and Screen Lab (1)
- **THEA 2517**  Visual Concepts in Theatre (3)
- **THEA 2541**  Costume History GI (3)
- **THEA 2574**  Drafting for Theatre Design (3)
- **THEA 314G**  Global Cinema History GI (3)
- **THEA 3223**  Makeup II (3)
- **THEA 3241**  Storytelling (3)
- **THEA 3516**  Art Direction for Film (3)
- **THEA 3541**  Costume Design I (3)
- **THEA 3571**  Scenic Design I (3)
- **THEA 3573**  Scenic Painting (3)
- **THEA 3612**  Directing Actors for the Stage (3)
- **THEA 3625**  Development and Fundraising for the Arts (3)
- **THEA 374R**  New Script Workshop (3)
- **THEA 416R**  Special Topics in Film Studies (3)
- **THEA 4547**  Costume Design II (3)
- **THEA 4577**  Scenic Design II (3)
1. Completion of a minimum of 120 semester credits.
2. A minimum of 2.5 GPA in all discipline core courses with no grade lower than a C- required for graduation. To qualify for the portfolio review, DGM courses must be completed with a grade of B- or higher.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements, which includes a portfolio review and acceptance into the degree.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched (WE) courses.

Footnote:
1-THEA 2311 Film History I FF recommended
2 - MGMT 1010 Introduction to Business SS recommended

Digital Cinema Production, B.S.

Careers

1. Technical – students will understand the use of camera, camera menus, electrical lighting, natural lighting, editing, color correction, audio recording, data management, and scheduling and budgeting software in order to be successfully handle the requirements of entry-level positions within the industry that require this technical knowledge.
2. Communicative – students will understand the structure, technique, format and style of contemporary storytelling for filmed media content, as well as the software used to create it. They will be able to write and express complex ideas using industry standard formatting that present story, visualization, camera angles, lighting designs, character development, and production design.
3. Leadership – students will understand film set protocol and film set culture and will be able to lead and train others in proper performance on filmed media industry sites. They will understand expectations and requirements of union regulated production standards and be able to adhere to them and train others in these standards.
4. Aesthetic – students will understand the aesthetic side of filmed media design, composition and color theory and how these elements are created using cameras, software, and source design.

Related Careers

• Art, Drama, and Music Teachers, Postsecondary
• Producers and Directors
• Camera Operators, Television, Video, and Motion Picture
• Film and Video Editors

Web Design and Development - Interaction Design and Development Emphasis, B.S.

Requirements

The BS in Web Design and Development allows students to study app development for mobile devices, web design, and development for mobile friendly websites, digital magazine publishing, and user experience design. In order to be successful in these areas, students need skills in design and content creation.

Total Program Credits: 120

or

ENGH 1005 Literacies and Composition Across Contexts CC (5.0)
ENGL 2010 Intermediate Academic Writing CC 3
Complete one of the following:
MAT 1030 Quantitative Reasoning QL (3.0)
MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6.0)
STAT 1040 Introduction to Statistics QL (3.0)
STAT 1045 Introduction to Statistics with Algebra QL (5.0)
MATH 1050 College Algebra QL (4.0) (recommended for Business, Education, Science, and Health Professions majors)
MATH 1055 College Algebra with Preliminaries QL (5.0)
MATH 1090 College Algebra for Business QL (3.0)
Complete one of the following:
HIST 2700 US History to 1877 AS (3.0)
HIST 2710 US History since 1877 AS (3.0)
HIST 1700 American Civilization AS (3.0)
HIST 1740 US Economic History AS (3.0)
POLS 1000 American Heritage SS (3.0)
POLS 1100 American National Government AS (3.0)
Complete the following:
PHIL 2050 Ethics and Values IH 3
HLTH 1100 Personal Health and Wellness TE 2
or
EXSC 1097 Fitness for Life TE (2.0)

Distribution Courses

- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution 3
- Fine Arts Distribution 3
- Social/Behavioral Science 3

Discipline Core Requirements: 44 Credits

DWDD 1400 Digital Design Essentials 3
DWDD 1410 Interaction Design Essentials 3
DWDD 1420 Communicating Digital Design WE 3
DWDD 1430 Principles of Digital Design 3
DWDD 1600 Web Essentials 3
DWDD 1720 Scripting for Internet Technologies 3
DWDD 2410 Interaction Design 3
DWDD 241R Interaction Design Practicum 1
DWDD 2610 Principles of Web Languages 3
DWDD 301R Digital Lecture Series 1
DGM 3110 Corporate Issues in Digital Media WE 3
Digital Media

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MKTG 3690</td>
<td>Digital Marketing Analytics</td>
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<tr>
<td>DGM 312G</td>
<td>Digital Media for Intercultural Communication GI</td>
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<tr>
<td>DGM 3220</td>
<td>Digital Media Project Management</td>
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<tr>
<td>DGM 481R</td>
<td>Internship</td>
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<tr>
<td>DWDD 490R</td>
<td>Senior Capstone</td>
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Interaction and Design Requirements 40

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<tr>
<td>DWDD 2420</td>
<td>Media Formats and Outputs</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 2510</td>
<td>Interactive Media Production</td>
<td>3</td>
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<tr>
<td>DWDD 2520</td>
<td>Digital Product Experiences I</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 3410</td>
<td>Interaction Design Colloquium</td>
<td>3</td>
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<tr>
<td>DWDD 3520</td>
<td>Digital Product Experiences II</td>
<td>3</td>
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<tr>
<td>DWDD 3430</td>
<td>Adaptive Media Experience</td>
<td>3</td>
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<tr>
<td>DWDD 4430</td>
<td>Adaptive Media II</td>
<td>3</td>
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<tr>
<td>DWDD 4520</td>
<td>Digital Product Design Studio</td>
<td>3</td>
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<tr>
<td>DWDD 4240</td>
<td>Experience Design Process</td>
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Complete 13 credits of electives (at least 2 credits must be upper-division) 13

<table>
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<tr>
<td>ART 1410</td>
<td>Typography I (3)</td>
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<td>DWDD 2530</td>
<td>Immersive Experiences I (3)</td>
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<td>DGM 281R</td>
<td>Internship (1-8)</td>
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<tr>
<td>DGM 1645</td>
<td>Mixed Reality Essentials (2)</td>
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<td>DGM 2245</td>
<td>Mixed Reality Experiences I (3)</td>
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<td>DCPR 2995</td>
<td>Virtual Reality for Digital Cinema Storytelling (3)</td>
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<td>DGM 3261</td>
<td>Mixed Reality Experiences II (3)</td>
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<tr>
<td>DWDD 4560</td>
<td>Designing Voice Experiences (3)</td>
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</tr>
<tr>
<td>Or other advisor-approved electives</td>
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Graduation Requirements:
1. Completion of a minimum of 120 semester credits.
2. A minimum of 2.5 GPA in all discipline core courses with no grade lower than a C- required for graduation. To qualify for the portfolio review, DGM courses must be completed with a grade of B- or higher.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements, which includes a portfolio review and acceptance into the degree.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched (WE) courses.

Web Design and Development - Interaction Design and Development Emphasis, B.S.

Careers
1. Develop critical thinking skills to solve industry-related problems,
2. Professional level creative design and production, problem solving, and robust verbal and written communication skills
3. Demonstrate junior level of proficiency in using industry standard digital hardware and software within their specific emphasis on student and real world projects
4. Work on community partnered and service learning projects that benefit the local community.

Related Careers
- Web Developers
- Multimedia Artists and Animators
- Graphic Designers

Web Design and Development - Web and App Development Emphasis, B.S.

Requirements
The BS in Web Design and Development allows students to study app development for mobile devices, web design, and development for mobile friendly websites, digital magazine publishing, and user experience design. In order to be successful in these areas, students need skills in design and content creation.

Total Program Credits: 120

General Education Requirements: 35 Credits

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<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
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<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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Complete one of the following: 3

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<th>Course Title</th>
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<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
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<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
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<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (3)</td>
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<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
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<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4.0) (recommended for Business, Education, Science, and Health Professions majors)</td>
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<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
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<td>MATH 1090</td>
<td>College Algebra for Business QL (3)</td>
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Complete one of the following: 3

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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<td>or HIST 2710</td>
<td>US History since 1877 AS (3)</td>
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<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
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<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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Complete the following: 2

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<th>Course Title</th>
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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
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<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
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<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
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Distribution Courses

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<td>Physical Science</td>
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<tr>
<td>Humanities Distribution</td>
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<tr>
<td>Fine Arts Distribution</td>
<td>3</td>
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<tr>
<td>Social/Behavioral Science</td>
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**Discipline Core Requirements:**

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DWDD 1400</td>
<td>Digital Design Essentials</td>
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<td>DWDD 1410</td>
<td>Interaction Design Essentials</td>
<td>3</td>
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<tr>
<td>DWDD 1420</td>
<td>Communicating Digital Design WE</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 1430</td>
<td>Principles of Digital Design</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 1600</td>
<td>Web Essentials</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 1720</td>
<td>Scripting for Internet Technologies</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 2410</td>
<td>Interaction Design</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 241R</td>
<td>Interaction Design Practicum</td>
<td>1</td>
</tr>
<tr>
<td>DWDD 2610</td>
<td>Principles of Web Languages</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 301R</td>
<td>Digital Lecture Series</td>
<td>1</td>
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<tr>
<td>DGM 3110</td>
<td>Corporate Issues in Digital Media WE</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3690</td>
<td>Digital Marketing Analytics</td>
<td>3</td>
</tr>
<tr>
<td>DGM 312G</td>
<td>Digital Media for Intercultural Communication GI</td>
<td>3</td>
</tr>
<tr>
<td>DGM 3220</td>
<td>Digital Media Project Management</td>
<td>3</td>
</tr>
<tr>
<td>DGM 481R</td>
<td>Internship</td>
<td>1</td>
</tr>
<tr>
<td>DWDD 490R</td>
<td>Senior Capstone</td>
<td>6</td>
</tr>
</tbody>
</table>

**Emphasis Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWDD 2620</td>
<td>Web Tools and Frameworks I</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 2720</td>
<td>Web Languages I</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 3620</td>
<td>Web Tools and Frameworks II</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 3720</td>
<td>Web Languages II</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 3770</td>
<td>Rich Internet Application Development I</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 3780</td>
<td>Rich Internet Application Development II</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 4630</td>
<td>Web Content Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits.
2. A minimum of 2.5 GPA in all discipline core courses with no grade lower than a C- required for graduation. To qualify for the portfolio review, DGM courses must be completed with a grade of B- or higher.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements, which includes a portfolio review and acceptance into the degree.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched (WE) courses.

**Web Design and Development - Web and App Development Emphasis, B.S.**

**Careers**

1. Students will be able to leverage accepted design principles to build visually appealing mockups and wire frames to maximize the user experience.
2. Students will be able to develop functional interfaces using current frameworks and technologies that work on multiple devices.
3. Students will be able to effectively communicate with peers in a work team and clients in both verbal and written forms.

**Related Careers**

- Web Developers
- Multimedia Artists and Animators
- Graphic Designers

---

**Or other advisor-approved electives**

**Complete 19 credits of electives (at least 5 upper-division):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 1400</td>
<td>Fundamentals of Programming</td>
<td>3</td>
</tr>
<tr>
<td>or INFO 1200</td>
<td>Computer Programming I for IS IT</td>
<td>3</td>
</tr>
<tr>
<td>CS 1410</td>
<td>Object-Oriented Programming</td>
<td>3</td>
</tr>
<tr>
<td>or INFO 2200</td>
<td>Computer Programming II for IS IT</td>
<td>3</td>
</tr>
<tr>
<td>CS 2420</td>
<td>Introduction to Algorithms and Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>DGM 1645</td>
<td>Mixed Reality Essentials</td>
<td>2</td>
</tr>
<tr>
<td>DWDD 2420</td>
<td>Media Formats and Outputs</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 2510</td>
<td>Interactive Media Production</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 2520</td>
<td>Digital Product Experiences I</td>
<td>3</td>
</tr>
<tr>
<td>DGM 281R</td>
<td>Internship</td>
<td>1-8</td>
</tr>
<tr>
<td>DWDD 3410</td>
<td>Interaction Design Colloquium</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 3430</td>
<td>Adaptive Media Experiences</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 3520</td>
<td>Digital Product Experiences II</td>
<td>3</td>
</tr>
<tr>
<td>DWDD 4430</td>
<td>Adaptive Media II</td>
<td>3</td>
</tr>
</tbody>
</table>
Earth Science

Degrees & Programs

Physical Science, A.S.

Requirements

Students interested in a physical science are encouraged to earn a baccalaureate degree (BS). The AS-PHSC degree is meant to prepare students on the path to a physical science baccalaureate degree (BS) such as geology (BS-GEOL), physics (BS-PHYS), or chemistry (BS-CHEM).

Total Program Credits: 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>37 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
</tr>
<tr>
<td>or MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

| HIST 2700                        | US History to 1877 AS (3) |
| and HIST 2710                    | US History since 1877 AS (3) |
| HIST 1700                        | American Civilization AS (3) |

Complete the following:

| HIST 1740                        | US Economic History AS (3) |
| POLS 1000                        | American Heritage SS (3) |
| POLS 1100                        | American National Government AS (3) |

Recommended for students most interested in physics:

| MATH 1210                       | Calculus I QL (4) |
| MATH 1220                       | Calculus II (4) |
| PHYS 2215                       | Physics for Scientists and Engineers I Lab (1) |
| PHYS 2225                       | Physics for Scientists and Engineers II Lab (1) |
| Any 1000 or 2000 level PHYS elective (1) |

Recommended for students most interested in chemistry:

| CHEM 1215                       | Principles of Chemistry I Laboratory (1) |
| CHEM 1225                       | Principles of Chemistry II Laboratory (1) |
| CHEM 2310                       | Organic Chemistry I (4) |
| CHEM 2315                       | Organic Chemistry I Laboratory (1) |
| CHEM 2320                       | Organic Chemistry II (4) |
| CHEM 2325                       | Organic Chemistry II Laboratory (1) |

Recommended for students most interested in earth science:

| CHEM 1215                       | Principles of Chemistry I Laboratory (1) |

Course Descriptions

Environmental Management .................................................. 684
Geology ............................................................................. 717
Geography ......................................................................... 714
Meteorology ........................................................................ 769
Earth Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1220</td>
<td>Principles of Chemistry II PP</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1225</td>
<td>Principles of Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEO 1015</td>
<td>Introduction to Geology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEO 1220</td>
<td>Historical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEO 1225</td>
<td>Historical Geology Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>

Elective Requirements: 
Complete 12 credits from the following (not to include any course being used to fill one of the requirements above). Consult with an advisor to determine which courses best match your long-term educational and career goals.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1210</td>
<td>Principles of Chemistry I PP</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1215</td>
<td>Principles of Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1220</td>
<td>Principles of Chemistry II PP</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1225</td>
<td>Principles of Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2310</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 2315</td>
<td>Organic Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2320</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 2325</td>
<td>Organic Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ENVT 1110</td>
<td>Introduction to Environmental Management PP</td>
<td>3</td>
</tr>
<tr>
<td>ENVT 2730</td>
<td>Introduction to Soils</td>
<td>4</td>
</tr>
<tr>
<td>GEO 1010</td>
<td>Introduction to Geology PP</td>
<td>3</td>
</tr>
<tr>
<td>GEO 1030</td>
<td>Natural Disasters and the Environment PP</td>
<td>3</td>
</tr>
<tr>
<td>GEO 1040</td>
<td>The Dinosaurian World PP</td>
<td>3</td>
</tr>
<tr>
<td>GEO 1050</td>
<td>Geology of National Parks PP</td>
<td>3</td>
</tr>
<tr>
<td>GEO 1080</td>
<td>Introduction to Oceanography PP</td>
<td>3</td>
</tr>
<tr>
<td>GEO 1220</td>
<td>Historical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEO 1225</td>
<td>Historical Geology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEO 2500</td>
<td>Introduction to Field Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 1000</td>
<td>Introduction to Physical Geography PP</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 1800</td>
<td>Mapping the World with Geospatial Technology PP</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1060</td>
<td>Trigonometry QL</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1210</td>
<td>Calculus I QL (MATH 1060 is a prerequisite for this course.)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2210</td>
<td>Calculus III</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2270</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2280</td>
<td>Ordinary Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>METO 1010</td>
<td>Introduction to Meteorology PP</td>
<td>3</td>
</tr>
<tr>
<td>METO 1060</td>
<td>Fundamentals of Weather Forecasting PP</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2210</td>
<td>Physics for Scientists and Engineers I PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2215</td>
<td>Physics for Scientists and Engineers I Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2220</td>
<td>Physics for Scientists and Engineers II PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2225</td>
<td>Physics for Scientists and Engineers II Lab</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above (departments may require a higher GPA).
3. Residency hours: minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Physical Science, A.S.

Careers

- Natural Sciences Managers
- Secondary School Teachers, Except Special and Career/Technical Education

Geographic Information Systems, Certificate of Proficiency

Requirements

The Certificate of Proficiency in Geographic Information Systems (GIS) provides students with a focused program of study in the fundamentals required to succeed in a wide range of careers in geospatial science. GIS includes the hardware, software, and data required to capture, store, display, and analyze geographically referenced information. Students in the certificate program learn the theory and methodology of geospatial data collection, storage and management, interpretation, and visualization through courses in cartography, remote sensing, GIS theory and applications, and geospatial field methods. In directed class projects students apply geospatial data techniques to real-world problems while gaining firsthand experience in project design and management.

Total Program Credits: 19

Discipline Core Requirements: 19 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 3400</td>
<td>Environmental Remote Sensing*</td>
<td>3</td>
</tr>
<tr>
<td>or SURV 1220</td>
<td>Remote Sensing and Photogrammetry (3.0)</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3600</td>
<td>Introduction to Geographic Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>or GIS 3600</td>
<td>Introduction to Geographic Information Systems</td>
<td>4</td>
</tr>
</tbody>
</table>
GIS 3620  Advanced Geographic Information Systems  3
or GEOG 3650  Advanced Geographic Information Systems (4.0)
GEOG 4100  Geospatial Field Methods  3
or EGDT 2400  Surveying Applications and Field Techniques II (3.0)

Complete 6 credits from the following courses:  6
   CS 1400  Fundamentals of Programming (3.0)
   GEOG 482R  GIS Internship (1-3)
   GEOG 489R  Student Research in Geography (1-4)
   GIS 3630  Geographic Information Systems Application Development (3.0)
   SURV 1340  Fundamentals of Boundary Law (3.0)
   SURV 2030  Geodesy (3.0)
   SURV 3210  Advanced Photogrammetry (3.0)
   EGDT 1040  Fundamentals of Technical Engineering Drawing (3.0)
   Or any courses with the following prefix: GEOG, SURV, GIS, EGDT subject to department approval

Graduation Requirements:
1. Grade of C- or higher in all courses used to satisfy requirements of the certificate.

Footnotes:
*Earth Science majors are encouraged to take GEOG 3400

Geographic Information Systems, Certificate of Proficiency
Careers

1. Prior to graduation, our students will develop the necessary technical knowledge in Earth system science, geology, environmental science and management, geoscience education and geography, as well as underlying foundational and interdisciplinary sciences including physics, chemistry, biology, and mathematics to succeed in professional careers related to their degree programs or in associated graduate programs.
2. Students will demonstrate effective oral and written communication skills that will enable them to succeed at presenting and publishing scientific data and reports.
3. Our students will develop skills to critically evaluate scientific questions and address those questions using both logical, laboratory, geospatial, and other creative approaches.
4. Our students will graduate with knowledge of the relevant agencies (e.g., EPA, BLM, USGS, UGS, etc.) and the associated laws and regulations relevant to their field of study.
5. Our students will graduate with sufficient knowledge of the breadth of career opportunities available to them that they can obtain career satisfaction. Additionally, they will know of the primary responsibilities and the expectations of them within their chosen professional track such that they are successful in the eyes of their employer(s).

Related Careers
- Managers, All Other
- Cartographers and Photogrammetrists
- Geography Teachers, Postsecondary

Water and Wastewater Operations, Certificate of Completion

Requirements
The Certificate of Completion in Water and Wastewater Operations provides students with a focused program of study in the fundamentals required to succeed in a wide range of careers in water and wastewater treatment. Water and Wastewater Operations includes the equipment, biological principles, and chemical principles needed to produce water that is safe and pleasant to drink and reclaimed wastewater that is safe and beneficial to release into the environment. Students in the certificate program learn the theory and methodology of water purification through courses in environmental microbiology, the hydraulics of water, drinking water treatment and water reclamation. In classroom discussions, field trips, and lab exercises students apply principles of biology and chemistry to real-world problems while gaining experience in the techniques they will use in a typical treatment plant.

Total Program Credits: 30

Discipline Core Requirements:  24 Credits
   ENGL 1010  Introduction to Academic Writing CC  3
   or ENGH 1005  Literacies and Composition Across Contexts CC (5)
   MATH 1050  College Algebra QL  4
   ENVT 1200  Environmental Worker Safety  3
   CHEM 1210  Principles of Chemistry I PP  4
   CHEM 1215  Principles of Chemistry I Laboratory  1
   ENVT 1270  Environmental Microbiology  3
   ENVT 1300  Environmental Lab and Sampling  2
   ENVT 3210  Water Quality and Reclamation  4

Elective Requirements:  6 Credits
Complete two of the following courses:  6
   ENVT 1310  Hazardous Materials Emergency Response (3)
   ENV 3280  Environmental Law (3)
   ENV 2560  Environmental Health (3)
   ENV 3010  Environmental Toxicology (3)
   ENV 3320  Hydraulics of Water (3)
   ENV 3330  Water Resources Management (3)
   ENV 3790  Applied Hydrology WE (4)
   ENV 3850  Environmental Policy WE (3)

Graduation Requirements:
1. Completion of a minimum of 31 credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours -- Minimum of 10 credits required through course attendance at UVU.

Water and Wastewater Operations, Certificate of Completion
Careers

1. With completion of this certificate, our students will develop the necessary technical knowledge to work in fields related to water delivery and treatment and to attain and maintain professional certification related to this career field.
Related Careers

- Water and Wastewater Treatment Plant and System Operators

Earth Science, Minor

Requirements
The Minor in Earth Science can be combined with other university-wide bachelor's degrees. The minor provides students with broad academic knowledge of foundational scientific principles in this field of study. In addition to taking introductory lecture and lab courses in geology (4 credits) students will complete at least two lower division earth science courses (7 credits) and three upper division earth science courses (10 credits). Students can choose to specialize their minor with up to three classes in weather and climate, or a series of classes in geology and geochemistry, or a series of courses that focus on earth surface processes and hazards geology, or they can choose to take a very broad range of courses spanning topics such as environmental science, meteorology, oceanography, paleontology and Earth history, tectonics and others.

Total Program Credits: 22

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>22 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 1010 Introduction to Geology PP</td>
<td>3</td>
</tr>
<tr>
<td>or GEO 1030 Natural Disasters and the Environment PP</td>
<td></td>
</tr>
<tr>
<td>or GEO 1040 The Dinosaurian World PP</td>
<td></td>
</tr>
<tr>
<td>or GEO 1050 Geology of National Parks PP</td>
<td></td>
</tr>
<tr>
<td>GEO 1015 Introduction to Geology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>Complete seven credits lower division electives from the following</td>
<td>7</td>
</tr>
<tr>
<td>ENVT 1110 Introduction to Environmental Management PP (3)</td>
<td></td>
</tr>
<tr>
<td>ENVT 2710 Environmental Careers (1)</td>
<td></td>
</tr>
<tr>
<td>ENVT 2730 Introduction to Soils (4)</td>
<td></td>
</tr>
<tr>
<td>GEO 202R Science Excursion (1)</td>
<td></td>
</tr>
<tr>
<td>GEO 204R Natural History Excursion BB (3)</td>
<td></td>
</tr>
<tr>
<td>GEO 1020 Prehistoric Life BB (3.0)</td>
<td></td>
</tr>
<tr>
<td>GEO 1080 Introduction to Oceanography PP (3.0)</td>
<td></td>
</tr>
<tr>
<td>GEO 1220 Historical Geology (3)</td>
<td></td>
</tr>
<tr>
<td>and GEO 1225 Historical Geology Laboratory (1)</td>
<td></td>
</tr>
<tr>
<td>GEO 2070 Desert Natural History (3)</td>
<td></td>
</tr>
<tr>
<td>GEO 2500 Introduction to Field Geology (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 1000 Introduction to Physical Geography PP (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 1800 Mapping the World with Geospatial Technology PP (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 2000 Sustainability and Environment SS (3)</td>
<td></td>
</tr>
<tr>
<td>METO 1010 Introduction to Meteorology PP (3.0)</td>
<td></td>
</tr>
<tr>
<td>METO 1060 Fundamentals of Weather Forecasting PP (3.0)</td>
<td></td>
</tr>
<tr>
<td>Complete eleven credits of upper division electives from the following:</td>
<td>11</td>
</tr>
<tr>
<td>ENVT 3790 Applied Hydrology WE (4.0)</td>
<td></td>
</tr>
<tr>
<td>ENVT 3800 Energy Use on Earth (3)</td>
<td></td>
</tr>
<tr>
<td>GEO 3000 Environmental Geochemistry (3)</td>
<td></td>
</tr>
<tr>
<td>GEO 3070 Advanced Desert Natural History (3)</td>
<td></td>
</tr>
<tr>
<td>GEO 3080 Earth Materials WE (3)</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements

1. Grade of C- or higher in all courses used to satisfy requirements of the minor.

Earth Science, Minor

Careers

1. Knowledge of at least two of the core fields of earth science, including petrology, mineralogy, sedimentology, paleontology, structural geology, engineering geology, hydrology, climatology, and meteorology.
2. Ability to communicate effectively both verbally and in writing.

Related Careers

- Natural Sciences Managers
- Geoscientists, Except Hydrologists and Geographers
Environmental Science and Management, Minor

**Requirements**

Environmental science is the study of the Earth's surface, including its water and atmosphere, with a particular focus on their relationship to humans and other living things. Environmental science applies chemistry, physics, mathematics, and biology to answer questions about the Earth and its interrelationships with living things. Environmental management focuses on the maintenance of environmental resources, for example water resources. Environmental scientists may conduct studies in the field, in the laboratory using advanced analytical equipment, and in the office using specialized computer software. The program is preparation for a variety of career paths, including water monitoring, treatment, and pollution control with local, state, or federal agencies; environmental consulting with private industry; and other careers that draw on a background in the natural sciences, including law, public policy, and public health.

**Total Program Credits: 21**

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>10 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td></td>
</tr>
<tr>
<td>ENVT 1110 Introduction to Environmental Management PP</td>
<td>3</td>
</tr>
<tr>
<td>ENVT 2560 Environmental Health</td>
<td>3</td>
</tr>
<tr>
<td>ENVT 2710 Environmental Careers</td>
<td>1</td>
</tr>
<tr>
<td>ENVT 3850 Environmental Policy WE</td>
<td>3</td>
</tr>
<tr>
<td>Elective Courses:</td>
<td>11 Credits</td>
</tr>
<tr>
<td>Complete at least 11 credits from the following list, at least six need to have an ENVT designation. In addition, at least eight credits must be 3000-level of higher.</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental Science and Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVT 1200 Environmental Worker Safety (3)</td>
</tr>
<tr>
<td>ENVT 1270 Environmental Microbiology (3)</td>
</tr>
<tr>
<td>ENVT 1300 Environmental Lab and Sampling (3)</td>
</tr>
<tr>
<td>ENVT 1510 Hazardous Materials Emergency Response (3)</td>
</tr>
<tr>
<td>ENVT 2730 Introduction to Soils (4)</td>
</tr>
<tr>
<td>ENVT 3010 Environmental Toxicology (3)</td>
</tr>
<tr>
<td>ENVT 3210 Water Quality and Reclamation (3)</td>
</tr>
<tr>
<td>ENVT 3280 Environmental Law (3)</td>
</tr>
<tr>
<td>ENVT 3290 Environmental Reporting WE (3)</td>
</tr>
<tr>
<td>ENVT 3320 Hydraulics of Water (3)</td>
</tr>
<tr>
<td>ENVT 3330 Water Resources Management (3)</td>
</tr>
<tr>
<td>ENVT 3530 Environmental Management Systems (3)</td>
</tr>
<tr>
<td>ENVT 3550 Site Investigation (3)</td>
</tr>
<tr>
<td>ENVT 3750 Land Use Planning (3)</td>
</tr>
<tr>
<td>ENVT 3790 Applied Hydrology (4)</td>
</tr>
<tr>
<td>ENVT 3800 Energy Use on Earth (3)</td>
</tr>
<tr>
<td>ENVT 482R Geologic Environmental Internship (1-3)</td>
</tr>
</tbody>
</table>

**Geography**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 2000</td>
<td>Sustainability and Environment SS</td>
<td>(3)</td>
</tr>
<tr>
<td>GEOG 3400</td>
<td>Environmental Remote Sensing</td>
<td>(3)</td>
</tr>
<tr>
<td>GEOG 3500</td>
<td>Geomorphology WE</td>
<td>(4)</td>
</tr>
<tr>
<td>GEOG 3600</td>
<td>Introduction to Geographic Information Systems</td>
<td>(4)</td>
</tr>
<tr>
<td>GEOG 3650</td>
<td>Advanced Geographic Information Systems</td>
<td>(4)</td>
</tr>
<tr>
<td>GEOG 3700</td>
<td>Wetland Studies</td>
<td>(3)</td>
</tr>
<tr>
<td>GEOG 3705</td>
<td>Wetland Studies Laboratory</td>
<td>(1)</td>
</tr>
<tr>
<td>GEOG 4100</td>
<td>Geospatial Field Methods</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Geology**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 1010</td>
<td>Introduction to Geology PP</td>
<td>(3)</td>
</tr>
<tr>
<td>GEO 1015</td>
<td>Introduction to Geology Laboratory</td>
<td>(1)</td>
</tr>
<tr>
<td>GEO 1080</td>
<td>Introduction to Oceanography PP</td>
<td>(3)</td>
</tr>
<tr>
<td>GEO 1085</td>
<td>Introduction to Oceanography Laboratory</td>
<td>(1)</td>
</tr>
<tr>
<td>GEO 3000</td>
<td>Environmental Geochemistry</td>
<td>(3)</td>
</tr>
<tr>
<td>GEO 3100</td>
<td>Isotope Geochemistry</td>
<td>(3)</td>
</tr>
<tr>
<td>GEO 3105</td>
<td>Isotope Geochemistry Laboratory</td>
<td>(1)</td>
</tr>
<tr>
<td>GEO 3200</td>
<td>Geologic Hazards</td>
<td>(4)</td>
</tr>
<tr>
<td>GEO 3205</td>
<td>Geologic Hazards Laboratory</td>
<td>(1)</td>
</tr>
</tbody>
</table>

At most 4 credits of the following may be used towards elective requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2500</td>
<td>Environmental Biology BB</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL 3700</td>
<td>General Ecology</td>
<td>(3)</td>
</tr>
<tr>
<td>BIOL 3800</td>
<td>Conservation Biology</td>
<td>(3)</td>
</tr>
<tr>
<td>BOT 4050</td>
<td>Plant Ecology</td>
<td>(3)</td>
</tr>
<tr>
<td>CHEM 3020</td>
<td>Environmental Chemistry</td>
<td>(3)</td>
</tr>
<tr>
<td>CHEM 3025</td>
<td>Environmental Chemistry Laboratory</td>
<td>(3)</td>
</tr>
<tr>
<td>ENST 3000</td>
<td>Introduction to Environmental Studies</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Or other electives approved by the chair of the Earth Science Department

**Graduation Requirements**

1. Grade of C- or higher in all courses used to satisfy requirements of the minor.

**Environmental Science and Management, Minor Careers**

1. Develop the necessary technical knowledge in environmental science and technology management and the underlying foundational and interdisciplinary sciences to succeed in their professional careers.

2. Demonstrate effective oral and written communication skills that will enable them to succeed at presenting and publishing scientific data and reports.
3. Develop skills to critically evaluate scientific literature and scientific problems, identify existing and new scientific questions, and address those questions using both logical, laboratory, geospatial, and other creative approaches.

4. Articulate how the relevant governmental agencies (e.g., EPA, BLM, USGS, UGS, etc.) and the associated environmental laws and regulations relate to their field of study.

5. Illustrate that they have sufficient knowledge of the breadth of career opportunities available to them so that they can obtain career satisfaction.

Related Careers

- Environmental Scientists and Specialists, Including Health
- Environmental Science Teachers, Postsecondary

Geography, Minor

Requirements

The Minor in Geography allows students to focus on either of the major sub-disciplines of geography, namely physical geography or human geography, or to follow a broad curriculum in geography. The minor will also overlap with the coursework required of students seeking a Utah state teaching endorsement in geography.

Total Program Credits: 20

**Discipline Core Requirements:** 10 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses: Complete the following:</td>
<td></td>
</tr>
<tr>
<td>GEOG 1000 Introduction to Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 140G Introduction to Human Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3600 Introduction to Geographic Information Systems</td>
<td>4</td>
</tr>
</tbody>
</table>

**Elective Requirements:** 10 Credits

Complete at least 10 credits from the following list, at least six of which must be 3000-level or higher:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVT 3800 Energy Use on Earth</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 1005 Introduction to Physical Geography Lab</td>
<td>1</td>
</tr>
<tr>
<td>GEOG 140G Introduction to Human Geography SS</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 1800 Mapping the World with Geospatial Technology</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 2000 Sustainability and Environment SS</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 2100 Geography of the United States SS</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 2500 Geography of Latin America and the Caribbean</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3000 Climate Change in Science and Society</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3110 Urban Geography WE</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3200 Geography of Utah</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3300 Biogeography</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 3350 Geography of Africa</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3400 Environmental Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3430 Political Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3500 Geomorphology WE</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 3650 Advanced Geographic Information Systems</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 3700 Wetland Studies</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3705 Wetland Studies Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEOG 3800 Environmental History of the United States</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 4100 Geospatial Field Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

At most one of the following courses may be used towards elective requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 3260 Archeological Method and Theory</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 3850 Ethnographic Methods WE</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 3700 General Ecology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 3800 Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>BOT 4050 Plant Ecology</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 373R Literature of Cultures and Places</td>
<td>3</td>
</tr>
<tr>
<td>ENST 3000 Introduction to Environmental Studies</td>
<td>3</td>
</tr>
<tr>
<td>ENVT 3330 Water Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>ENVT 3850 Environmental Policy WE</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 3150 Culture Ecology and Health</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 3530 Environmental Ethics</td>
<td>3</td>
</tr>
<tr>
<td>SOC 4020 Survey Research Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Or other advisor-approved electives

Graduation Requirements:

1. Grade of C- or higher in all courses used to satisfy requirements of the minor.

Geography, Minor Careers

1. Technical Knowledge: Prior to graduation, our students will develop the necessary technical knowledge in Earth systems and geography, as well as underlying foundational and interdisciplinary sciences including physics, chemistry, biology, and mathematics to succeed in professional careers related to their degree programs or in associated graduate programs.

2. Skill in oral and written communication: Our students will demonstrate effective oral and written communication skills that will enable them to succeed at presenting and publishing scientific data and reports. This includes orally presenting the results of research to technical and non-technical audiences and writing technical and non-technical reports based upon original research and reviews of other literature and reports.

3. Skill in problem solving and reasoning: Our students will develop skills to critically evaluate scientific questions and address those questions using both logical, laboratory, geospatial, and other creative approaches.

4. Knowledge of agencies, laws, and regulations: Our students will graduate with knowledge of the relevant agencies (e.g., EPA, BLM, USGS, UGS, etc.) and the associated laws and regulations relevant to their field of study. Their knowledge will be sufficiently deep that they understand where and how to seek additional information to further educate themselves and conduct their work with accordance to all agencies, laws, and regulations.

5. Knowledge of Professional Options and Responsibilities: Our students will graduate with sufficient knowledge of the breadth of career opportunities available to them that they can obtain career satisfaction. Additionally, they will know of the primary responsibilities and the expectations of them within their chosen professional track such that they are successful in the eyes of their employer(s).
Earth Science

**Related Careers**
- Managers, All Other
- Geographers
- Geography Teachers, Postsecondary

Earth Science Education, B.S.

**Requirements**
Earth Science is the study of the Earth, including its water and atmosphere, and their relationship to humans and other living things. Earth Science applies chemistry, physics, mathematics and biology to scientific problems of the Earth. The Earth Science Education program prepares students to receive a Utah State teaching credential with an endorsement in Earth Science. Through careful choice of courses, students may also earn endorsements in the other physical sciences.

**Total Program Credits: 121**

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Complete the following courses: GEO 1010 Introduction to Geology PP, GEO 1015 Introduction to Geology Lab, MATH 1050 College Algebra QL (or MATH 1055 College Algebra with Preliminaries QL), MATH 1060 Trigonometry QL, BIOL 1010 General Biology BB with a grade of &quot;C&quot; or higher in each.</td>
<td></td>
</tr>
<tr>
<td>2. Complete a minimum of 30 semester hours of college credit.</td>
<td></td>
</tr>
<tr>
<td>3. Apply to the department of Earth Science for admission.</td>
<td></td>
</tr>
</tbody>
</table>

**Secondary Education Requirements:**
1. ENGL and MATH QL courses must have a grade C or higher
2. GPA of 3.0 or higher with no grade lower than a C in content area courses.
3. Completion of all General Education requirements and 70% of content area courses.
4. Pass LiveScan Criminal Background Check.

**General Education Requirements:**
- **30 Credits**
  - ENGL 1010 Introduction to Academic Writing CC
  - or
  - ENGH 1005 Literacies and Composition Across Contexts CC (5)
  - ENGL 2010 Intermediate Academic Writing CC
  - MATH 1050 College Algebra QL
  - or
  - MATH 1055 College Algebra with Preliminaries QL (5)

**Complete one of the following:**
- HIST 2700 US History to 1877 AS (3)
  - and
  - HIST 2710 US History since 1877 AS (3)
  - HIST 1700 American Civilization AS (3)
  - HIST 1740 US Economic History AS (3)
  - POLS 1000 American Heritage SS (3)
  - POLS 1100 American National Government AS (3)

**Complete the following:**
- PHIL 2050 Ethics and Values IH
- HLTH 1100 Personal Health and Wellness TE (2)
- or
- EXSC 1097 Fitness for Life TE

<table>
<thead>
<tr>
<th>Distribution Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1010 General Biology BB</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science ¹</td>
<td></td>
</tr>
<tr>
<td>Additional Biology or Physical Science ¹</td>
<td></td>
</tr>
</tbody>
</table>

**Discipline Core Requirements:**
- **91 Credits**
  - ASTR 1040 Elementary Astronomy PP
  - or
  - BIOL 2500 Environmental Biology BB (3)
  - CHEM 1210 Principles of Chemistry I PP
  - CHEM 1215 Principles of Chemistry I Laboratory
  - CHEM 1220 Principles of Chemistry II PP
  - CHEM 1225 Principles of Chemistry II Laboratory
  - GEO 1010 Introduction to Geology PP
  - GEO 1015 Introduction to Geology Laboratory
  - GEO 1220 Historical Geology
  - GEO 1225 Historical Geology Laboratory
  - GEO 3700 Structure and Tectonics
  - GEO 3080 Earth Materials WE
  - and GEO 3085 Earth Materials Laboratory
  - GEO 4500 Sedimentary Geology WE
  - GEO 480R Earth Science Seminar (must be taken twice)
  - METO 1010 Introduction to Meteorology PP
  - METO 3100 Climate and the Earth System
  - SCIE 4210 Science Teaching Methods I
  - SCIE 4220 Teaching Methods in Science II
  - PHYS 2010 College Physics I PP
  - PHYS 2015 College Physics I Lab
  - PHYS 2020 College Physics II PP
  - PHYS 2025 College Physics II Lab

<table>
<thead>
<tr>
<th>Education Courses</th>
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</thead>
<tbody>
<tr>
<td>EDSC 1010 Introduction to Education</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 3000 Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 325G Equitable Technology Integration GI</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4200 Classroom Management I</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4250 Classroom Management II</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4440 Content Area Literacies</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 445G Multicultural Instruction ESL GI</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 455G Secondary Curriculum Instruction and Assessment GI</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 4850 Student Teaching--Secondary</td>
<td>8</td>
</tr>
<tr>
<td>EDSC 4990 Teacher Performance Assessment Project WE</td>
<td>2</td>
</tr>
<tr>
<td>EDSP 340G Exceptional Students GI</td>
<td>2</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**
1. Completion of a minimum of 121 semester credits.
2. Overall GPA of 3.0 (B) or above with no grade lower than a C in major required content courses and no grade lower than a B- in
License and Methods courses. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. Grade of C or higher in all GEO, BIOL, and METO courses.
6. Successful completion of at least one Global/Intercultural course.

Note: *This requirement is fulfilled with the core requirements.

Earth Science Education, B.S.

Careers

1. Prior to graduation, our students will develop the necessary technical knowledge in Earth Science Education, as well as underlying foundational and interdisciplinary sciences including physics, chemistry, biology, and mathematics to succeed in a professional career related to their degree programs or in associated graduate programs.
2. Our students will demonstrate effective oral and written communication skills that will enable them to succeed at presenting and publishing scientific data and reports and presenting content matter to students as educators. This includes orally presenting the results of research to technical and non-technical audiences and writing technical and non-technical reports based on original research and reviews of other literature and reports.
3. Our students will develop skills to critically evaluate scientific literature and scientific problems, identify existing and new scientific questions, and address those questions using both logical, laboratory, geospatial, and other creative approaches applied to classroom teaching.
4. Our students will graduate with knowledge of the relevant agencies (e.g., NAGT, NAME, USDE, EPA, BLM, USGS, UGS, etc.) and the associated standards, laws, and regulations relevant to the field of education and earth science. Their knowledge will be sufficiently deep that they understand whereand how to seek additional information to further educate themselves and conduct their work with accordance to all agencies, standards, laws, and regulations.
5. Our students will graduate with sufficient knowledge of the breadth of career opportunities available to them that they can obtain career satisfaction. Additionally, they will know of their primary responsibilities and the expectations of them within their chosen professional track such that they are successful in the eyes of their employer(s).

Related Careers

- Agricultural Sciences Teachers, Postsecondary
- Biological Sciences Teachers, Postsecondary
- Forestry and Conservation Science Teachers, Postsecondary
- Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary
- Chemistry Teachers, Postsecondary
- Environmental Science Teachers, Postsecondary
- Physics Teachers, Postsecondary
- Education Teachers, Postsecondary
- Middle School Teachers, Except Special and Career/Technical Education
- Secondary School Teachers, Except Special and Career/Technical Education

Environmental Science and Management, B.S.

Requirements
Environmental Science is the study of the Earth’s surface, including its water and atmosphere, with a particular focus on their relationship to humans and other living things. Environmental Science applies chemistry, physics, mathematics, geography, biology and geology to answer questions about the Earth and its interrelationships with living things. Environmental Management focuses on the maintenance of environmental resources, for example the management of water resources, geological resources, or air quality. Environmental scientists may conduct studies in the field, in the laboratory using advanced analytical equipment, and in the office using specialized computer software. The program is preparation for a variety of career paths, including water monitoring, treatment, and pollution control with local, state or federal agencies; environmental and hydrological consulting with private industry; and other careers that draw on a background in the natural sciences, including law, public policy, and public health.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th>36 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Context CC (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1210</td>
<td>Calculus I QL 1 (4)</td>
</tr>
<tr>
<td>MATH 1058</td>
<td>College Algebra QL 2 (4)</td>
</tr>
<tr>
<td>MATH 1080</td>
<td>Precalculus QL (5)</td>
</tr>
<tr>
<td>Complete the following:</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
</tr>
<tr>
<td>Complete the following:</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
</tr>
<tr>
<td>or PHIL 2050</td>
<td>Ethics and Values IH</td>
</tr>
<tr>
<td>or PHIL 205G</td>
<td>Ethics and Values IH GI (3)</td>
</tr>
</tbody>
</table>

Distribution Courses

<table>
<thead>
<tr>
<th>Complete one of the following:</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1010</td>
<td>General Biology BB (3)</td>
</tr>
<tr>
<td>or BIOL 1610</td>
<td>College Biology I BB (4)</td>
</tr>
<tr>
<td>ENVT 1110</td>
<td>Introduction to Environmental Management</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>GEO 1010</td>
<td>Introduction to Geology PP (3)</td>
</tr>
<tr>
<td>GEO 1030</td>
<td>Natural Disasters and the Environment PP (3)</td>
</tr>
<tr>
<td>GEO 1040</td>
<td>The Dinosaurian World PP (3)</td>
</tr>
<tr>
<td>GEO 1050</td>
<td>Geology of Natural Parks PP (3)</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science: (GEOG 2000 Recommended)</td>
<td>3</td>
</tr>
</tbody>
</table>
### Earth Science

**Discipline Core Requirements:** 51 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 1015</td>
<td>Introduction to Geology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1210</td>
<td>Principles of Chemistry I PP</td>
<td>4</td>
</tr>
<tr>
<td>and</td>
<td>CHEM 1215</td>
<td>Principles of Chemistry I Laboratory</td>
</tr>
<tr>
<td>and</td>
<td>CHEM 1220</td>
<td>Principles of Chemistry II PP</td>
</tr>
<tr>
<td>and</td>
<td>CHEM 1225</td>
<td>Principles of Chemistry II Laboratory</td>
</tr>
<tr>
<td>ENVT 1270</td>
<td>Environmental Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MIRC 3150</td>
<td>Microbial Ecology WE</td>
</tr>
<tr>
<td>ENV 1300</td>
<td>Environmental Lab and Sampling</td>
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<td>STAT 2040</td>
<td>Principles of Statistics QL</td>
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<tr>
<td>PHYS 2010</td>
<td>College Physics I PP</td>
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<tr>
<td>or</td>
<td>PHYS 2210</td>
<td>Physics for Scientists and Engineers I PP</td>
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</tbody>
</table>

**Academic Track Requirements:** 12 Credits

Select one of the following tracks: 12

**Environmental Management Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVT 1200</td>
<td>Environmental Worker Safety (3)</td>
<td></td>
</tr>
<tr>
<td>ENVT 1510</td>
<td>Hazardous Materials Emergency Response (3)</td>
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Complete one of the following - Water and Pollution Management

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ENV 3010</td>
<td>Environment Toxicology (3)</td>
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</tr>
<tr>
<td>CIVE 3320</td>
<td>Introduction to Water Resources (3)</td>
<td></td>
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<tr>
<td>ENV 3320</td>
<td>Hydraulics of Water (3)</td>
<td></td>
</tr>
<tr>
<td>ENV 3330</td>
<td>Water Resources Management (3)</td>
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Complete one of the following - Land and Environmental Management

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV 3530</td>
<td>Environmental Management Systems (3)</td>
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<tr>
<td>ENV 3750</td>
<td>Land Use Planning (3)</td>
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<td>ENV 3770</td>
<td>Natural Resources Management (3)</td>
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**Environmental Science Track**

<table>
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<tr>
<td>METO 1010</td>
<td>Introduction to Meteorology PP (3)</td>
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<tr>
<td>GEOG 3400</td>
<td>Environmental Remote Sensing (3)</td>
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Complete one of the following - Biological Sciences

<table>
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<tr>
<td>BIOL 2500</td>
<td>Environmental Biology BB (3)</td>
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<tr>
<td>BIOL 3700</td>
<td>General Ecology (3)</td>
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</table>

**Elective Requirements:** 21 Credits

Choose 21 credits, not already taken in the core or track, from the following list (at least 15 credits must be Upper Division): 5

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV 1200</td>
<td>Environmental Worker Safety (3)</td>
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<tr>
<td>ENVT 1510</td>
<td>Hazardous Materials Emergency Response (3)</td>
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<td>ENV 3010</td>
<td>Environment Toxicology (3)</td>
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<td>ENV 3290</td>
<td>Environmental Reporting WE (3)</td>
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<tr>
<td>ENV 3320</td>
<td>Hydraulics of Water (3)</td>
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<tr>
<td>CIVE 3320</td>
<td>Introduction to Water Resources (3)</td>
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<tr>
<td>ENV 3330</td>
<td>Water Resources Management (3)</td>
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<tr>
<td>ENV 3530</td>
<td>Environmental Management Systems (3)</td>
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<tr>
<td>ENV 3550</td>
<td>Site Investigation (3)</td>
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<tr>
<td>ENV 3700</td>
<td>Current Topics in Environmental Management (3)</td>
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<td>ENV 3750</td>
<td>Land Use Planning (3)</td>
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<td>ENVT 3770</td>
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<td>ENV 3800</td>
<td>Energy Use on Earth (3)</td>
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<td>ENVT 482R</td>
<td>Geologic Environmental Internship (1)</td>
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<td>ENVT 495R</td>
<td>Special Projects in Environmental Management (1)</td>
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<td>GEO 1080</td>
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<td>GEO 202R</td>
<td>Science Excursion (1)</td>
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<td>GEO 204R</td>
<td>Natural History Excursion BB (1)</td>
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<td>GEO 2070</td>
<td>Desert Natural History (3)</td>
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<td>GEO 3000</td>
<td>Environmental Geochemistry (3)</td>
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<td>GEO 3100</td>
<td>Isotope Geochemistry (3)</td>
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<td>GEO 3080</td>
<td>Earth Materials WE (3)</td>
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<td>and</td>
<td>GEO 3085</td>
<td>Earth Materials Laboratory (1)</td>
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<td>and</td>
<td>GEO 3100</td>
<td>Isotope Geochemistry (3)</td>
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<tr>
<td>and</td>
<td>GEO 3105</td>
<td>Isotope Geochemistry Laboratory (1)</td>
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<td>and</td>
<td>GEO 3200</td>
<td>Geologic Hazards (3)</td>
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<td>and</td>
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<td>Geologic Hazards Laboratory (1)</td>
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<td>GEO 4790</td>
<td>Hydrogeology (3)</td>
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<td>GEOG 2000</td>
<td>Sustainability and Environment SS (3)</td>
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<tr>
<td>GEOG 3650</td>
<td>Advanced Geographic Information Systems (4)</td>
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<tr>
<td>GEOL 3500</td>
<td>Geomorphology WE (4)</td>
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<td>or</td>
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<td>Geomorphology WE (4)</td>
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Course Catalog 2023-2024

Total Program Credits: 120

General Education Requirements:

<table>
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<tr>
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<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<tr>
<td>ENGL 1005</td>
<td>Literacies and Composition Across Context CC (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
</tr>
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</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
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<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL</td>
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Complete the following:

<table>
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<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL</td>
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</tbody>
</table>

Or other electives approved by the advisor and chair.

Environmental Science Teachers, Postsecondary

- Environmental Scientists and Specialists, Including Health
- Environmental Science Teachers, Postsecondary
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS</td>
<td>(3)</td>
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<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS</td>
<td>(3)</td>
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<tr>
<td>HIST 1700</td>
<td>American Civilization AS</td>
<td>(3)</td>
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<tr>
<td>HIST 1740</td>
<td>US Economic History AS</td>
<td>(3)</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS</td>
<td>(3)</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Complete the following:

1. PHIL 2050 Ethics and Values IH  
2. HLTH 1100 Personal Health and Wellness TE  
3. or EXSC 1097 Fitness for Life TE (2)

Distribution Courses:

- BIOL 1010 General Biology BB  
- or BIOL 1610 College Biology I BB (4)
- ENVT 1110 Introduction to Environmental Management PP  
- GEOG 1000 Introduction to Physical Geography PP  
- Humanities Distribution  
- GEOG 140G Introduction to Human Geography SS GI  
- Fine Arts Distribution  
- Discipline Core Requirements: 22 Credits
- GEOG 2000 Sustainability and Environment SS  
- GEOG 3000 Climate Change: Science and Society  
- ENST 3000 Introduction to Environmental Studies  
- ENST 3100 Environmental Justice  
- ENVT 3290 Environmental Reporting WE  
- ENVT 3850 Environmental Policy WE  
- COMM 3115 Communicating in Environments  
- GEO 480R Earth Science Seminar (must be taken twice)  
- Program Electives: 33 Credits

Complete six credits from the following 6

1. ENVT 2560 Environmental Health (3)  
2. ENVT 3280 Environmental Law (3)  
3. ENVT 3800 Energy Use on Earth (3)  
4. ENVT 3770 Natural Resources Management (3)  
5. ENST 3520 Environmental Sociology (3)  
6. ENST 490R Topics in Environmental Studies (3)  
7. PHIL 3530 Environmental Ethics (3)  
8. PHIL 4300 Environmental Aesthetics (3)  

Select one of the following methods courses 3

1. ANTH 3850 Ethnographic Methods WE (3)  
2. ENGL 3460 Wilderness and Environmental Writing (3)  
3. GEOG 3600 Introduction to Geographic Information Systems (4)  
4. STAT 2040 Principles of Statistics QL (4)

Complete 12 credits from the following physical and life science courses 1

- ENVT 3750 Land Use Planning (3)  
- GEOG 3700 Wetland Studies (3)  
- GEOG 3400 Environmental Remote Sensing (3)  
- GEOG 3300 Biogeography (4)  
- GEOG 3500 Geomorphology (4)  
- GEOG 3650 Advanced Geographic Information Systems (4)  
- GEOG 3705 Wetland Studies Laboratory (1)  
- BIOL 2500 Environmental Biology BB (3)  
- BIOL 3700 General Ecology (3)  
- ENVT 2730 Introduction to Soils (4)  
- ENVT 3790 Applied Hydrology WE (4)  
- ENVT 4790 Hydrology II (4)  
- GEO 1080 Introduction to Oceanography PP (3)  
- GEO 1010 Introduction to Geology PP (3)  
- GEO 1085 Introduction to Oceanography Laboratory (1)  
- GEO 3080 Earth Materials WE (3)  
- GEO 3200 Geologic Hazards (3)  
- GEO 202R Science Excursion (1)  
- GEO 3500 Geomorphology WE (4)  
- GEOG 4100 Geospatial Field Methods (3)  
- METO 3100 Climate and the Earth System (3)

Complete 12 credits from the following social science and humanities classes 1

- ANTH 3200 Food and Culture (3)  
- ANTH 101G Social Cultural Anthropology SS GI (3)  
- GEOG 2500 Geography of Latin America and the Caribbean (3)  
- GEOG 3110 Urban Geography WE (3)  
- GEOG 3200 Geography of Utah (3)  
- GEOG 3350 Geography of Africa (3)  
- GEOG 3800 Environmental History of the United States (3)  
- or HIST 3800 Environmental History of the United States (3)

1. ANTH 3200 Food and Culture (3)  
2. ANTH 101G Social Cultural Anthropology SS GI (3)  
3. GEOG 2500 Geography of Latin America and the Caribbean (3)  
4. GEOG 3110 Urban Geography WE (3)  
5. GEOG 3200 Geography of Utah (3)  
6. GEOG 3350 Geography of Africa (3)  
7. GEOG 3800 Environmental History of the United States (3)  
8. or HIST 3800 Environmental History of the United States (3)  
9. HIST 322G History of the American West to 1850 GI WE (3)  
10. HIST 323G History of the American West since 1850 GI WE (3)  
11. HIST 4320 History of Scientific Thought (3)  
12. POLS 3030 State and Local Government (3)  
13. POLS 3410 Globalization and Sustainable Development (3)  
14. POLS 3310 Introduction to Public Policy WE (3)  
15. POLS 3320 Nonprofits and The Public Sector (3)  
16. POLS 3640 United Nations Sustainable Development Goals (3)
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHIL 3400</td>
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<td>SOC 1010</td>
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<td>SOC 3520</td>
<td>Environmental Sociology (3)</td>
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<td>or</td>
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<tr>
<td>SO 0000</td>
<td>Environmental Sociology (3)</td>
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<td>SOC 4100</td>
<td>Contemporary Social Theory WE (3)</td>
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<td>SOC 4400</td>
<td>Social Change (3)</td>
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<td>PJST 3200</td>
<td>Global Poverty Facts Causes and Solutions (3)</td>
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<td>PJST 3300</td>
<td>Community Development (3)</td>
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<tr>
<td>Electives:</td>
<td>29 Credits</td>
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</table>

Choose any classes. It is recommended that you select classes listed in the categories above that have not been taken or select from the courses below. It is also recommended to select classes from the following prefixes: GEOG, GEO, ENV, ENST, AIST, ANTH, SOC, BIOL, CHEM, PHYS, NSS, HIST, GIS, MATH, STAT, CS, REC, PHIL, ENTR, ARC, ART, HUM, ENGL, METO, PJST, POLS, MGMT.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>GEOG 482R</td>
<td>GIS Internship (1-3)</td>
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<td>GEOG 489R</td>
<td>Student Research in Geography (1-4)</td>
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<td>AIST 327G</td>
<td>Indians of Utah GI (3)</td>
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<td>CHEM 1210</td>
<td>Principles of Chemistry I PP (4)</td>
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<td>CHEM 1220</td>
<td>Principles of Chemistry II Laboratory (1)</td>
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<td>Introduction to Statistical Computing (1)</td>
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<td>STAT 3040</td>
<td>Probability and Statistics for Engineering and the Sciences (3)</td>
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<td>ENGL 373R</td>
<td>Literature of Cultures and Places (3)</td>
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<td>Creativity and Entrepreneurial Thinking SS (3)</td>
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<td>Precolumbian America (3)</td>
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<td>ANTH 3150</td>
<td>Culture Ecology and Health (3)</td>
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<td>ANTH 3450</td>
<td>Shamanism and Indigenous Religion (3)</td>
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<td>ETHS 2510</td>
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<td>ENVT 3600</td>
<td>Appropriate Technology and Sustainable Development for the Developing World (3)</td>
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<td>Internet and Society (3)</td>
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<td>SOC 3850</td>
<td>Rural Life--Global and Local (3)</td>
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</tbody>
</table>

Notes:
1. You need at least 40 hours of upper division credit to graduate. Work with your advisor to make sure you are meeting the 40 credits of upper division requirement.

Graduation Requirements:
1. Completion of a minimum of 120 semester credits with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.0 (C) or above.
3. Grade of C- or better in core curriculum courses.
4. Successful completion of at least one Global/Intercultural course.
5. Successful completion of at least two Writing Enriched (WE) courses.

Environmental Studies, B.S.

Careers
1. Analyze the scientific underpinnings, social context, and political ramifications of key environmental challenges to design sustainable solutions.
2. Evaluate the links between social and natural systems to identify appropriate areas of intervention.
3. Critically assess environmental and sustainability programs, organizations, and reporting mechanisms to create new and/or revised programs, organizations, and reports.
4. Analyze key environmental challenges facing societies and their unevenly distributed impacts.
5. Influence policy outcomes using existing laws, regulations, stakeholders, and interesting groups relating to environmental issues.
6. Create compelling written, verbal, and graphic presentations of environment and sustainability issues.

Geography, B.S.

Requirements
Geography is the study of the earth’s places, peoples, environments and their interrelationships from both the physical and social science perspectives. Geographers use many different scientific tools to study the relationships between earth’s systems including geospatial technology and are employed in public agencies, local governments, federal offices, technology sectors, business planning, and careers related to spatial planning. The Bachelor of Science in Geography
Earth Science

provides students with a program of study in the fundamentals of geography and prepares them to succeed as geographers as well as in many other careers related to geography. Students learn theories and methods of analysis related to land use and land cover change, urbanization, sustainability, human-environment interactions, and Geographic Information Systems (GIS) technology through the core courses of the program. Through elective courses, students can choose to further focus their studies on physical sciences, social sciences, and/or geospatial techniques to meet their career goals.

**Total Program Credits: 120**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>36 Credits</th>
</tr>
</thead>
<tbody>
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<td>ENGL 1010 Introduction to Academic Writing CC</td>
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<td>or ENGH 1005 Literacies and Composition Across Context CC (5)</td>
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</tr>
<tr>
<td>MATH 1050 College Algebra QL</td>
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<tr>
<td>or MATH 1055 College Algebra with Preliminaries QL (5)</td>
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<tr>
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<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
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<tr>
<td>HIST 1700 American Civilization AS (3)</td>
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<td>HIST 1740 US Economic History AS (3)</td>
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<td>POLS 1000 American Heritage SS (3)</td>
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<td>POLS 1100 American National Government AS (3)</td>
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<td>Complete the following:</td>
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<tr>
<td>PHIL 2050 Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100 Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097 Fitness for Life TE (2)</td>
<td></td>
</tr>
<tr>
<td>Distribution Courses</td>
<td></td>
</tr>
<tr>
<td>METO 1010 Introduction to Meteorology PP</td>
<td>3</td>
</tr>
<tr>
<td>or METO 1060 Fundamentals of Weather Forecasting PP</td>
<td></td>
</tr>
<tr>
<td>or ENVT 1110 Introduction to Environmental Management PP</td>
<td></td>
</tr>
<tr>
<td>or GEOG 1800 Mapping the World with Geospatial Technology PP</td>
<td></td>
</tr>
<tr>
<td>or GEO 1010 Introduction to Geology PP</td>
<td></td>
</tr>
<tr>
<td>or GEO 1030 Natural Disasters and the Environment PP</td>
<td></td>
</tr>
<tr>
<td>or GEO 1040 The Dinosaurian World PP</td>
<td></td>
</tr>
<tr>
<td>or GEO 1050 Geology of National Parks PP</td>
<td></td>
</tr>
<tr>
<td>GEOG 1000 Introduction to Physical Geography PP</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 130G Survey of World Geography GI SS</td>
<td>3</td>
</tr>
<tr>
<td>Biology Distribution</td>
<td>3</td>
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<tr>
<td>Humanities Distribution</td>
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<tr>
<td>Fine Arts Distribution</td>
<td>3</td>
</tr>
<tr>
<td>Discipline Core Requirements:</td>
<td>84 Credits</td>
</tr>
<tr>
<td>GEOG 140G Introduction to Human Geography SS GI</td>
<td>3</td>
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<tr>
<td>GEOG 2000 Sustainability and Environment SS</td>
<td>3</td>
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</table>

Select 12 credits from the following physical and life science courses:

<table>
<thead>
<tr>
<th></th>
<th>12</th>
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</thead>
<tbody>
<tr>
<td>GEOG 1005 Introduction to Physical Geography Lab (1)</td>
<td></td>
</tr>
<tr>
<td>GEO 1015 Introduction to Geology Laboratory (1)</td>
<td></td>
</tr>
<tr>
<td>GEOG 1800 Mapping the World with Geospatial Technology PP</td>
<td></td>
</tr>
<tr>
<td>GEOG 3300 Biogeography (4)</td>
<td></td>
</tr>
<tr>
<td>GEOG 3400 Environmental Remote Sensing (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 3700 Wetland Studies (3)</td>
<td></td>
</tr>
<tr>
<td>and GEOG 3705 Wetland Studies Laboratory (1)</td>
<td></td>
</tr>
<tr>
<td>BIOL 3700 General Ecology (3)</td>
<td></td>
</tr>
<tr>
<td>ENVT 2730 Introduction to Soils (4)</td>
<td></td>
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<tr>
<td>ENVT 3790 Applied Hydrology WE (4)</td>
<td></td>
</tr>
<tr>
<td>ENVT 3800 Energy Use on Earth (3)</td>
<td></td>
</tr>
<tr>
<td>or GEO 1010 Introduction to Geology PP (3)</td>
<td></td>
</tr>
<tr>
<td>or GEO 1030 Natural Disasters and the Environment PP</td>
<td></td>
</tr>
<tr>
<td>or GEO 1040 The Dinosaurian World PP</td>
<td></td>
</tr>
<tr>
<td>or GEO 1050 Geology of National Parks PP</td>
<td></td>
</tr>
<tr>
<td>GEO 3200 Geologic Hazards (3)</td>
<td></td>
</tr>
<tr>
<td>GEO 3080 Earth Materials WE (3)</td>
<td></td>
</tr>
<tr>
<td>and GEO 3085 Earth Materials Laboratory (1)</td>
<td></td>
</tr>
<tr>
<td>GEO 4790 Hydrogeology</td>
<td></td>
</tr>
<tr>
<td>GEOG 4100 Geospatial Field Methods (3)</td>
<td></td>
</tr>
<tr>
<td>METO 3100 Climate and the Earth System (3)</td>
<td></td>
</tr>
</tbody>
</table>

Select 12 credits from the following social science classes:

<table>
<thead>
<tr>
<th></th>
<th>12</th>
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</thead>
<tbody>
<tr>
<td>GEOG 2100 Geography of the United States SS (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 2500 Geography of Latin America and the Caribbean (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 3010 Economic Geography (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 3250 Cultural Geography (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 3430 Political Geography (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 3350 Geography of Africa (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 3800 Environmental History of the United States (3)</td>
<td></td>
</tr>
<tr>
<td>SOC 3520 Environmental Sociology (3)</td>
<td></td>
</tr>
<tr>
<td>or ENST 3520 Environmental Sociology (3)</td>
<td></td>
</tr>
<tr>
<td>SOC 4020 Survey Research Design (3)</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>PHYS 2220</td>
<td>Physics for Scientists and Engineers II PP</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC 3030</td>
<td>Social Research Methods WE</td>
</tr>
<tr>
<td>SOC 2370</td>
<td>Sociology of Gender</td>
</tr>
<tr>
<td>SOC 3690</td>
<td>Internet and Society</td>
</tr>
<tr>
<td>SOC 3850</td>
<td>Rural Life--Global and Local</td>
</tr>
<tr>
<td>STAT 2050</td>
<td>Introduction to Statistical Methods</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits, including 40 hours of upper-division credit.
2. Overall grade point average of 2.0 (C) or above.
3. Grade of C- or better in every ENV, GEO, GEOG, METO, and core curriculum course.
4. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched (WE) courses.

Footnote

1 You need at least 40 hours of upper division credit to graduate. Work with your advisor to make sure you are meeting the 40 credits of upper division requirement.

2 Courses used for GE distribution credits cannot double count as core or elective classes.

**Geography, B.S.**

**Careers**

1. **Technical Knowledge:** Prior to graduation, our students will develop the necessary technical knowledge in Earth system science, geology, environmental science and management, geoscience education and geography, as well as underlying foundational and interdisciplinary sciences including physics, chemistry, biology, and mathematics to succeed in professional careers related to their degree programs or in associated graduate programs.

2. **Skill in oral and written communication:** Our students will demonstrate effective oral and written communication skills that will enable them to succeed at presenting and publishing scientific data and reports. This includes orally presenting the results of research to technical and non-technical audiences and writing technical and non-technical reports based upon original research and reviews of other literature and reports.

3. **Skill in problem solving and reasoning:** Our students will develop skills to critically evaluate scientific questions and address those questions using both logical, laboratory, geospatial, and other creative approaches.

4. **Knowledge of agencies, laws, and regulations:** Our students will graduate with knowledge of the relevant agencies (e.g., EPA, BLM, USGS, UGS, etc.) and the associated laws and regulations relevant to their field of study. Their knowledge will be sufficiently deep that they understand where and how to seek additional information to further educate themselves and conduct their work with accordance to all agencies, laws, and regulations.

5. **Knowledge of Professional Options and Responsibilities:** Our students will graduate with sufficient knowledge of the breadth of career opportunities available to them that they can obtain career satisfaction. Additionally, they will know of the primary responsibilities and the expectations of them within their chosen professional track such that they are successful in the eyes of their employer(s).
Earth Science

Related Careers
• Managers, All Other
• Geographers
• Geography Teachers, Postsecondary

Geology, B.S.

Requirements
Geology is the study of the Earth, including its water and atmosphere, and its relationship to humans and other living things. Geology applies chemistry, physics, mathematics and biology to answer questions about the Earth. Geologists conduct studies in the field, in the laboratory using advanced analytical equipment, and in the office using specialized computer software. Geology is particularly focused on the Earth’s history, resources, hazards and resources including groundwater. Sub-disciplines of geology include economic geology, geochemistry, geologic hazards, geomorphology, hydrogeology, petrology, and tectonics. A B.S. in geology is preparation for a variety of career paths, including hazard assessment with government or private companies, ground and surface water monitoring and development, oil and gas, mining, and many other careers that draw on a background in the natural earth, including law, public policy, and public health; the program is also excellent preparation for graduate school.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>37 Credits</th>
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<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Context CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1210 Calculus I QL</td>
<td>4</td>
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<tr>
<td>Complete one of the following:</td>
<td></td>
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<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700 American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740 US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000 American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100 American National Government AS (3)</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Distribution Courses</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>BIOL 1010 General Biology BB</td>
<td>3</td>
</tr>
<tr>
<td>GEO 1010 Introduction to Geology PP</td>
<td>3</td>
</tr>
<tr>
<td>or GEO 1030 Natural Disasters and the Environment PP</td>
<td></td>
</tr>
<tr>
<td>or GEO 1040 The Dinosaurian World PP</td>
<td></td>
</tr>
<tr>
<td>or GEO 1050 Geology of National Parks PP</td>
<td></td>
</tr>
<tr>
<td>CHEM 1210 Principles of Chemistry I PP</td>
<td>4</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts Distribution</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>83 Credits</th>
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<tbody>
<tr>
<td>CHEM 1215 Principles of Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1220 Principles of Chemistry II PP</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1225 Principles of Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEOG 3600 Introduction to Geographic Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>GEO 1015 Introduction to Geology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEO 1220 Historical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEO 1225 Historical Geology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEO 2500 Introduction to Field Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEO 3080 Earth Materials WE</td>
<td>3</td>
</tr>
<tr>
<td>and GEO 3085 Earth Materials Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEO 3200 Geologic Hazards</td>
<td>4</td>
</tr>
<tr>
<td>and GEO 3205 Geologic Hazards Laboratory (either hazards or geomorphology can be taken as core requirement)</td>
<td></td>
</tr>
<tr>
<td>or GEO 3500 Geomorphology WE</td>
<td></td>
</tr>
<tr>
<td>or GEOG 3500 Geomorphology WE</td>
<td></td>
</tr>
<tr>
<td>GEO 3700 Structure and Tectonics</td>
<td>4</td>
</tr>
<tr>
<td>GEO 4500 Sedimentary Geology WE</td>
<td>4</td>
</tr>
<tr>
<td>GEO 4790 Hydrogeology (Recommended)</td>
<td>4</td>
</tr>
<tr>
<td>or ENVT 3790 Applied Hydrology WE</td>
<td></td>
</tr>
<tr>
<td>GEO 4600 Field Experience</td>
<td>6</td>
</tr>
<tr>
<td>MATH 1220 Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>STAT 2040 Principles of Statistics QL</td>
<td>4</td>
</tr>
<tr>
<td>GEO 480R Earth Science Seminar (Must be taken twice)</td>
<td>1</td>
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<tr>
<td>PHYS 2210 Physics for Scientists and Engineers I PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2220 Physics for Scientists and Engineers II PP</td>
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</table>

Complete 22 credits from the following list (at least 12 credits must be Upper Division) 22

<table>
<thead>
<tr>
<th>Complete 22 credits from the following list (at least 12 credits must be Upper Division)</th>
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<tbody>
<tr>
<td>BIOL 3800 Conservation Biology</td>
<td>(3)</td>
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<tr>
<td>ENVT 2730 Introduction to Soils</td>
<td>(4)</td>
</tr>
<tr>
<td>ENVT 3280 Environmental Law</td>
<td>(3)</td>
</tr>
<tr>
<td>ENVT 3790 Applied Hydrology WE</td>
<td>(3)</td>
</tr>
<tr>
<td>GEO 202R Science Excursion</td>
<td>(1)</td>
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<tr>
<td>GEO 204R Natural History Excursion BB</td>
<td>(3)</td>
</tr>
<tr>
<td>GEO 3000 Environmental Geochemistry</td>
<td>(3)</td>
</tr>
<tr>
<td>GEO 3100 Isotope Geochemistry</td>
<td>(3)</td>
</tr>
<tr>
<td>GEO 3105 Isotope Geochemistry Laboratory</td>
<td>(1)</td>
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<tr>
<td>GEO 3200 Geologic Hazards</td>
<td>(4)</td>
</tr>
<tr>
<td>and GEO 3205 Geologic Hazards Laboratory</td>
<td>(1) (if not taken as core requirement)</td>
</tr>
<tr>
<td>GEO 3500 Geomorphology WE</td>
<td>(4) (if not taken as core requirement)</td>
</tr>
<tr>
<td>or GEOG 3500 Geomorphology WE</td>
<td>(3)</td>
</tr>
<tr>
<td>GEO 4080 Petrology</td>
<td>(3)</td>
</tr>
<tr>
<td>and GEO 4085 Petrology Laboratory</td>
<td>(1)</td>
</tr>
<tr>
<td>GEO 4510 Paleontology</td>
<td>(4)</td>
</tr>
</tbody>
</table>
Earth Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GEO 4790</td>
<td>Hydrogeology (3)</td>
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<tr>
<td>GEO 482R</td>
<td>Geologic Environmental Internship (1)</td>
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<tr>
<td>GEO 489R</td>
<td>Student Research (1-4)</td>
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<tr>
<td>GEOG 3400</td>
<td>Environmental Remote Sensing (3)</td>
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</tr>
<tr>
<td>GEOG 3650</td>
<td>Advanced Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>GEOG 3700</td>
<td>Wetland Studies (3)</td>
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<tr>
<td>GEOG 3705</td>
<td>Wetland Studies Laboratory (3)</td>
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<tr>
<td>GEOG 4100</td>
<td>Geospatial Field Methods (3)</td>
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</tr>
<tr>
<td>METO 1010</td>
<td>Introduction to Meteorology PP (3)</td>
<td></td>
</tr>
<tr>
<td>METO 1060</td>
<td>Fundamentals of Weather Forecasting PP (3)</td>
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</tr>
<tr>
<td>METO 3100</td>
<td>Climate and the Earth System (3)</td>
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<tr>
<td>PHYS 2215</td>
<td>Physics for Scientists and Engineers I Lab (1)</td>
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</tr>
<tr>
<td>PHYS 2225</td>
<td>Physics for Scientists and Engineers II Lab (1)</td>
<td></td>
</tr>
</tbody>
</table>

Or other department approved electives

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits, with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.0 (C) or above.
3. Grade of C- or better in every ENVT, GEO, GEOG, and METO course.
4. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. Completion of GE and specified departmental requirements.
6. Successful completion of at least one Global/Intercultural course.
7. Successful completion of at least two Writing Enriched (WE) courses.

**Geology, B.S. Careers**

1. Develop the necessary technical knowledge in geology, as well as underlying foundational and interdisciplinary sciences including physics, chemistry, biology, and mathematics to succeed in professional careers related to their degree programs or in associated graduate programs.
2. Demonstrate effective oral and written communication skills that will enable them to succeed at presenting and publishing scientific data and reports.
3. Develop skills to critically evaluate scientific literature and scientific problems, identify existing and new scientific questions, and address those questions using both logical, laboratory, geospatial, and other creative approaches.
4. Graduate with knowledge of the relevant agencies (e.g., EPA, BLM, USGS, UGS, etc.) and the associated laws and regulations relevant to their field of study.
5. Graduate with sufficient knowledge of the breadth of career opportunities available to them that they can obtain career satisfaction.

**Related Careers**

- Natural Sciences Managers
- Geoscientists, Except Hydrologists and Geographers
- Hydrologists
- Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary
Education Graduate Programs

The Education Graduate Programs are in the School of Education. To find the most up-to-date information, including Program Learning Outcomes for the Education Graduate Programs, visit their website.

FACULTY

- ESCALANTE, Debora L. Associate Professor
- KANG, Mi Ok Associate Professor
- PATCH, Michael Associate Professor
- TUFT, Elaine Professor
- WAITE, Bryan Professor
- WARBURTON, Trevor Assistant Professor

Course Descriptions

Education Curr and Instruction

Degrees & Programs

Applied Behavior Analysis, Graduate Certificate

Requirements

The ABA Graduate Certificate emphasis will qualify students with a master's degree to apply to become a Board Certified Behavior Analyst (BCBA). This certificate includes all required ABA-specific coursework and supervised practicum hrs.

Total Program Credits: 29

Matriculation Requirements:

- Requirements for admission to the ABA Graduate Certificate emphasis program would include the following:
- Earned Master's Degree

Discipline Core Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDAB 6010</td>
<td>ABA Concepts and Principles</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6020</td>
<td>Ethics and Professional Competencies in ABA</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6030</td>
<td>Developing and Changing Behaviors</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6040</td>
<td>Measurement in Single Subject Design</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6050</td>
<td>Functional Behavior Assessment and Treatment</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6060</td>
<td>Advanced Topics in ABA</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6070</td>
<td>Training Supervision and Performance</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6080</td>
<td>Introduction to Practice in ABA</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6100</td>
<td>Group Research Design in ABA</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 689R</td>
<td>ABA Supervision Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

Graduation Requirements:

- Pass all classes and supervision with a B- or higher (cumulative GPA of 3.0).
- Completion of a minimum of 26 semester credits.
- Residency hours -- minimum of 18 credit hours through course attendance at UVU.

Applied Behavior Analysis, Graduate Certificate Careers

1. Develop effective individual treatment plans
2. Ethical conduct in professional practice
3. Accurately assess behavioral issues in clients
4. Pass BCBA certification exam

Related Careers

- Instructional Coordinators

Educational Leadership, Graduate Certificate

Requirements

The Graduate Certificate for Educational Leadership in UVU's School of Education (SOE) is designed to align with the current Ed Leadership emphasis in the M.Ed. The certificate will meet the needs of candidates who have previously completed a master's degree (M.Ed) and now wish to prepare as potential administrative and instructional school leaders for Utah's schools. Curriculum for this option will be based on the standards for administrative/ supervisory endorsement from the Utah State Office of Education (USOE), and the Interstate School Leaders Licensure Consortium (ISLLC). The grad certificate program will be formatted to meet the needs of adult learners, with courses offered in the evenings and in blended and online formats, but will not require them to retake core courses previously completed. The administrative/ supervisory certificate will prepare leaders for 21st century schools in the areas of curriculum, instruction, and human resource administration. Course objectives will emphasize performance of school and classroom leadership functions, functional knowledge of local, state, and national educational agencies and regulations, demonstrated competencies in administrative skills, and applied understandings of current research around effective teaching, theories of learning, and educational policy. Candidates will be required to complete supervised internship work that is required by Utah code.

Total Program Credits: 21

Matriculation Requirements:

- Earned M.Ed. and acceptance into the program.

Discipline Core Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDAB 6010</td>
<td>ABA Concepts and Principles</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6020</td>
<td>Ethics and Professional Competencies in ABA</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6030</td>
<td>Developing and Changing Behaviors</td>
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<td>EDAB 6040</td>
<td>Measurement in Single Subject Design</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6050</td>
<td>Functional Behavior Assessment and Treatment</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6060</td>
<td>Advanced Topics in ABA</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6070</td>
<td>Training Supervision and Performance</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6120</td>
<td>Personal Leadership and Organizational Design</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6130</td>
<td>School Operations and Management-Finance/Law/Safety</td>
<td>3</td>
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</table>
EDLE 6140  Instructional Leadership  3
EDLE 6150  School Operations and Management- Communication/ Planning/HR/ Evaluation  3
EDLE 6160  Developing Positive School and Community Culture  3
EDLE 6170  Leading Change/ Innovation/ Educational Entrepreneurship  3
EDLE 696R  Clinical Portfolio  3

Graduation Requirements:
1. Residency hours -- all courses must be taken at UVU.
2. Satisfactory completion of all coursework with a minimum overall GPA of 3.0.
3. All courses passed with a B- or higher.
4. Pass state required licensing exam.

Educational Leadership, Graduate Certificate

Careers
1. Demonstrate competency in the development, articulation, implementation, and stewardship of a shared vision for education.
2. Demonstrate competency in supporting teaching and learning by facilitating coherent systems of curriculum, instruction, and assessment.
3. Demonstrate competency in managing school operations and resources.
4. Demonstrate competency in engaging families and the community in order to create an inclusive, caring, safe, and supportive school environment.
5. Demonstrate competency in acting ethically and professionally in leadership, and honoring the heritage and background of each student, promoting the equity of educational opportunity for all students.
6. Demonstrate competency to act as agents of continuous improvement and foster a professional community of teachers and staff to promote each student's academic success and well-being.

Related Careers
- Instructional Coordinators

Master of Education - Educational Technology Emphasis, M.Ed.

Requirements
The Master of Education Degree (M.Ed.) at Utah Valley University is an applied master's program aimed at building the instructional skills and professional competency of teachers. Currently there are eleven emphases for participants: Applied Behavioral Analysis; Educational Leadership; Educational Technology; Elementary Mathematics; Elementary STEM, English as a Second Language (ESL), Gifted and Talented Education; Higher Education Leadership; Reading I, Secondary Teaching, and Teacher Leadership. The M.Ed. program emphasizes coursework that prepares teachers to become instructional leaders, with classes in advanced pedagogy, subject matter content, curriculum design, and assessment. Core coursework in research methods is required of participants in all options, however, students select a topic for a culminating project according to their interest or area of licensure in K-12 education.

Total Program Credits: 36

Matriculation Requirements:
1. Application for admission.
2. Bachelor degree from an accredited institution.
3. Overall grade point average in undergraduatework of 3.0 or higher or have a grade point average of 3.0 or higher for the last 60 semester hours of college or university credit.
4. Interview with School of Education Graduate Committee.
5. Three professional letters of recommendation.

Preference will be given to individuals who have at least one year of successful teaching experience in grades K-12. A one-year internship will count as the preferred year of successful teaching.

Preference will be given to practicing teachers who have access to an established classroom.

Discipline Core Requirements:  12 Credits

EDUC 6100  Research Methodology  3
EDUC 6110  Applied Statistics for Education  3
EDUC 6200  Masters Project  3
EDUC 691R  Project I  1
EDUC 692R  Project II  1
EDUC 693R  Project III  1

Emphasis Requirements:  12 Credits

Students bring in 12 credits from 5000 level courses earned through state approved endorsement in Educational Technology.

EDUC 6320  21st Century Instruction and Assessment  3
EDUC 6330  Diversity and Differentiation in the Classroom  3
EDUC 6300  Curriculum Design  3
or EDUC 6412  or Adult Learning -- Theory and Practice

Choose one of the following:  3

EDUC 6411  Instructional Coaching (3)
EDUC 6311  Introduction to Exceptional Students (3)
EDUC 6082  Equitable Technology Integration for Practitioners (3)

Graduation Requirements
1. Complete all courses with a grade of B- or better with an overall GPA of 3.0 or higher.
2. Graduate project proposal accepted by School of Education Graduate Committee.
3. Graduate project completed and accepted by the School of Education Graduate Committee.
4. Courses and project requirements must be finished within a five year period. No courses will apply toward graduation that are older than five years.

**Master of Education - Educational Technology Emphasis, M.Ed.**

**Careers**

1. Plan curriculum and design instruction to enhance student learning.
2. Engage and support all students in learning.
3. Assess and evaluate student learning.
4. Demonstrate professionalism to support student learning.

**Related Careers**

- Instructional Coordinators

**Master of Education - Elementary Arts Integration Emphasis, M.Ed.**

**Requirements**

The Master of Education Degree (M.Ed.) at Utah Valley University is an applied master’s program aimed at building the instructional skills and professional competency of teachers. The Earned Endorsement Emphasis is for teachers who have previously earned an endorsement from the Utah State Board of Education (USBE). The following endorsements are accepted at UVU: Elementary Arts Integration, Elementary Mathematics, Elementary Science, Elementary STEM, English as a Second Language (ESL), Reading I, Gifted & Talented, and Educational Technology. Up to 12 (5000-level) credits from a recently completed endorsement may be applied toward the M.Ed. Please note - all applicable coursework from the endorsement must be completed within the three years prior to admission to the M.Ed. The M.Ed. program emphasizes coursework that prepares teachers to become instructional leaders, with classes in advanced pedagogy, subject matter content, curriculum design, and assessment. Core coursework in research methods is required of participants in all options, however, students select a topic for a culminating project according to their interest and endorsement area.

**Total Program Credits: 36**

**Matriculation Requirements:**

1. Application for admission.
2. Bachelor degree from an accredited institution.
3. Overall grade point average in undergraduate work of 3.0 or higher or have a grade point average of 3.0 or higher for the last 60 semester hours of college or university credit.
4. Interview with School of Education Graduate Committee.
5. Three professional letters of recommendation.

Preference will be given to individuals who have at least one year of successful teaching experience in grades K-12. A one-year internship will count as the preferred year of successful teaching.

Preference will be given to practicing teachers who have access to an established classroom.

**Discipline Core Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>EDUC 6100</td>
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<tr>
<td>EDUC 6110</td>
<td>3</td>
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<td>EDUC 6200</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 691R</td>
<td>1</td>
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<tr>
<td>EDUC 692R</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 693R</td>
<td>1</td>
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</table>

**Emphasis Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
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<td>EDUC 6330 Diversity and Differentiation in the Classroom</td>
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<td>EDUC 6300 Curriculum Design</td>
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</tr>
<tr>
<td>or EDUC 6412 Adult Learning—Theory and Practice</td>
<td>3</td>
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<tr>
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<tr>
<td>EDUC 6411 Instructional Coaching (undefined)</td>
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<tr>
<td>EDUC 6311 Introduction to Exceptional Students (undefined)</td>
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</tr>
<tr>
<td>EDUC 6082 Equitable Technology Integration for Practitioners (3)</td>
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</table>

**Graduation Requirements**

1. Complete all courses with a grade of B- or better with an overall GPA of 3.0 or higher.
2. Graduate project proposal accepted by School of Education Graduate Committee.
3. Graduate project completed and accepted by the School of Education Graduate Committee.
4. Courses and project requirements must be finished within a five year period. No courses will apply toward graduation that are older than five years.

**Master of Education - Elementary Arts Integration Emphasis, M.Ed.**

**Careers**

1. Plan curriculum and design instruction to enhance student learning.
2. Engage and support all students in learning.
3. Assess and evaluate student learning.
4. Demonstrate professionalism to support student learning.
5. Engage in research on arts instruction in elementary schools.
6. Demonstrate knowledge and skill related to arts integration in elementary schools.

**Related Careers**

- Instructional Coordinators

**Master of Education - Elementary Mathematics Emphasis, M.Ed.**

**Requirements**

The Master of Education Degree (M.Ed.) at Utah Valley University is an applied master’s program aimed at building the instructional skills and professional competency of teachers. Currently there are eleven emphases for participants: Applied Behavioral Analysis; Educational Leadership; Educational Technology; Elementary Mathematics; Elementary STEM, English as a Second Language (ESL), Gifted and Talented Education, Higher Education Leadership, Reading I, Secondary Teaching, and Teacher Leadership. The M.Ed. program emphasizes coursework that prepares teachers to become instructional leaders, with classes in advanced pedagogy, subject matter content, curriculum design, and assessment. Core coursework in research methods is required of participants in all options, however, students select a topic for a culminating project according to their interest or area of licensure in K-12 education.
Total Program Credits: 36

Matriculation Requirements:
1. Application for admission.
2. Bachelor degree from an accredited institution.
3. Overall grade point average in undergraduate work of 3.0 or higher or have a grade point average of 3.0 or higher for the last 60 semester hours of college or university credit.
4. Interview with School of Education Graduate Committee.
5. Three professional letters of recommendation.

Preference will be given to individuals who have at least one year of successful teaching experience in grades K-12. A one-year internship will count as the preferred year of successful teaching.

Preference will be given to practicing teachers who have access to an established classroom.

Discipline Core Requirements: 12 Credits

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>EDUC 6100</td>
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<td>EDUC 6110</td>
<td>Applied Statistics for Education</td>
<td>3</td>
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<td>EDUC 6200</td>
<td>Masters Project</td>
<td>3</td>
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<tr>
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<td>EDUC 692R</td>
<td>Project II</td>
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<td>EDUC 693R</td>
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Emphasis Requirements: 24 Credits

Students bring in 12 credits from 5000 level courses earned through state endorsement in Elementary Mathematics.

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tr>
<td>EDUC 6330</td>
<td>Diversity and Differentiation in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6300</td>
<td>Curriculum Design</td>
<td>3</td>
</tr>
<tr>
<td>or EDUC 6412</td>
<td>Adult Learning--Theory and Practice</td>
<td>3</td>
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</table>

Choose one of the following 3

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<tr>
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<tr>
<td>EDUC 6411</td>
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</tr>
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<td>EDUC 6311</td>
<td>Introduction to Exceptional Students (undefined)</td>
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</tr>
<tr>
<td>EDUC 6082</td>
<td>Equitable Technology Integration for Practitioners (3)</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements
1. Complete all courses with a grade of B- or better with an overall GPA of 3.0 or higher.
2. Graduate project proposal accepted by School of Education Graduate Committee.
3. Graduate project completed and accepted by the School of Education Graduate Committee.
4. Courses and project requirements must be finished within a five year period. No courses will apply toward graduation that are older than five years.

Master of Education - Elementary Mathematics Emphasis, M.Ed.

Careers
1. Plan curriculum and design instruction to enhance student learning.
2. Engage and support all students in learning.

3. Assess and evaluate student learning.
4. Demonstrate professionalism to support student learning

Related Careers
- Instructional Coordinators

Master of Education - Elementary STEM Emphasis, M.Ed.

Requirements
The Master of Education Degree (M.Ed.) at Utah Valley University is an applied master’s program aimed at building the instructional skills and professional competency of teachers. Currently there are eleven emphases for participants: Applied Behavioral Analysis; Educational Leadership; Educational Technology; Elementary Mathematics; Elementary STEM, English as a Second Language (ESL), Gifted and Talented Education, Higher Education Leadership, Reading I, and Teacher Leadership. The M.Ed. program emphasizes coursework that prepares teachers to become instructional leaders, with classes in advanced pedagogy, subject matter content, curriculum design and assessment. Core coursework in research methods is required of participants in all options, however, students select a topic for a culminating project according to their interest or area of licensure in K-12 education.

Total Program Credits: 36

Matriculation Requirements:
1. Application for admission.
2. Bachelor degree from an accredited institution.
3. Overall grade point average in undergraduate work of 3.0 or higher or have a grade point average of 3.0 or higher for the last 60 semester hours of college or university credit.
4. Interview with School of Education Graduate Committee.
5. Three professional letters of recommendation.

Preference will be given to individuals who have at least one year of successful teaching experience in grades K-12. A one-year internship will count as the preferred year of successful teaching.

Preference will be given to practicing teachers who have access to an established classroom.

Discipline Core Requirements: 12 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>EDUC 6100</td>
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<td>EDUC 6110</td>
<td>Applied Statistics for Education</td>
<td>3</td>
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<td>Masters Project</td>
<td>3</td>
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<td>1</td>
</tr>
<tr>
<td>EDUC 692R</td>
<td>Project II</td>
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<tr>
<td>EDUC 693R</td>
<td>Project III</td>
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</tbody>
</table>

Emphasis Requirements: 24 Credits

Students bring in 12 credits from 5000 level courses earned through state endorsement in Elementary STEM.

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
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<td>EDUC 6330</td>
<td>Diversity and Differentiation in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6300</td>
<td>Curriculum Design</td>
<td>3</td>
</tr>
<tr>
<td>or EDUC 6412</td>
<td>Adult Learning--Theory and Practice</td>
<td>3</td>
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Choose one of the following 3

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<tr>
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<tbody>
<tr>
<td>EDUC 6411</td>
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Education Graduate Programs

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>EDUC 6311</td>
<td>Introduction to Exceptional Students (undefined)</td>
</tr>
<tr>
<td>EDUC 6082</td>
<td>Equitable Technology Integration for Practitioners (3)</td>
</tr>
</tbody>
</table>

**Graduation Requirements**

1. Complete all courses with a grade of B- or better with an overall GPA of 3.0 or higher.
2. Graduate project proposal accepted by School of Education Graduate Committee.
3. Graduate project completed and accepted by the School of Education Graduate Committee.
4. Courses and project requirements must be finished within a five year period. No courses will apply toward graduation that are older than five years.

**Master of Education - Elementary STEM Emphasis, M.Ed.**

**Careers**

1. Plan curriculum and design instruction to enhance student learning.
2. Engage and support all students in learning.
3. Assess and evaluate student learning.
4. Demonstrate professionalism to support student learning

**Related Careers**

- Instructional Coordinators

**Master of Education - Elementary Science Emphasis, M.Ed.**

**Requirements**

The Master of Education Degree (M.Ed.) at Utah Valley University is an applied master’s program aimed at building the instructional skills and professional competency of teachers. The Earned Endorsement Emphasis is for teachers who have previously earned an endorsement from the Utah State Board of Education (USBE). The following endorsements are accepted at UVU: Elementary Arts Integration, Elementary Mathematics, Elementary Science, Elementary STEM, English as a Second Language (ESL), Reading I, Gifted & Talented, and Educational Technology. Up to 12 (5000-level) credits from a recently completed endorsement may be applied toward the M.Ed. Please note - all applicable coursework from the endorsement must be completed within the three years prior to admission to the M.Ed. The M.Ed. program emphasizes coursework that prepares teachers to become instructional leaders, with classes in advanced pedagogy, subject matter content, curriculum design, and assessment. Core coursework in research methods is required of participants in all options, however, students select a topic for a culminating project according to their interest and endorsement area.

**Total Program Credits: 36**

**Matriculation Requirements:**

1. Application for admission.
2. Bachelor degree from an accredited institution.
3. Overall grade point average in undergraduate work of 3.0 or higher or have a grade point average of 3.0 or higher for the last 60 semester hours of college or university credit.
4. Interview with School of Education Graduate Committee.
5. Three professional letters of recommendation.

Preference will be given to individuals who have at least one year of successful teaching experience in grades K-12. A one-year internship will count as the preferred year of successful teaching.

Preference will be given to practicing teachers who have access to an established classroom.

**Discipline Core Requirements: 12 Credits**

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<tr>
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<td>Masters Project</td>
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<td>EDUC 692R</td>
<td>Project II</td>
</tr>
<tr>
<td>EDUC 693R</td>
<td>Project III</td>
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</table>

**Emphasis Requirements: 24 Credits**

Students bring in 12 credits from 5000 level courses earned through Elementary Science Endorsement

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>EDUC 6320</td>
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<tr>
<td>EDUC 6330</td>
<td>Diversity and Differentiation in the Classroom</td>
</tr>
<tr>
<td>EDUC 6300</td>
<td>Curriculum Design</td>
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<tr>
<td>or EDUC 6412</td>
<td>Adult Learning--Theory and Practice</td>
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<tbody>
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<td>Instructional Coaching (undefined)</td>
</tr>
<tr>
<td>EDUC 6311</td>
<td>Introduction to Exceptional Students (undefined)</td>
</tr>
<tr>
<td>EDUC 6082</td>
<td>Equitable Technology Integration for Practitioners (3)</td>
</tr>
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</table>

**Graduation Requirements**

1. Complete all courses with a grade of B- or better with an overall GPA of 3.0 or higher.
2. Graduate project accepted by School of Education Graduate Committee.
3. Graduate project completed and accepted by the School of Education Graduate Committee.
4. Courses and project requirements must be finished within a five year period. No courses will apply toward graduation that are older than five years.

**Master of Education - Elementary Science Emphasis, M.Ed.**

**Careers**

1. Plan curriculum and design instruction to enhance student learning.
2. Engage and support all students in learning.
3. Assess and evaluate student learning.
4. Demonstrate professionalism to support student learning
5. Engage in research related to effective Elementary Science instruction
6. Demonstrate skill in teaching the Utah Elementary Science standards

**Related Careers**

- Instructional Coordinators
Master of Education - English as a Second Language Emphasis, M.Ed.

Requirements
The Master of Education Degree (M.Ed.) at Utah Valley University is an applied master’s program aimed at building the instructional skills and professional competency of teachers. Currently there are eleven emphases for participants: Applied Behavioral Analysis; Educational Leadership; Educational Technology; Elementary Mathematics; Elementary STEM, English as a Second Language (ESL), Gifted and Talented Education, Higher Education Leadership, Reading I, Secondary Teaching, and Teacher Leadership. The M.Ed. program emphasizes coursework that prepares teachers to become instructional leaders, with classes in advanced pedagogy, subject matter content, curriculum design, and assessment. Core coursework in research methods is required of participants in all options, however, students select a topic for a culminating project according to their interest or area of licensure in K-12 education.

Total Program Credits: 36

Matriculation Requirements:

1. Application for admission.
2. Bachelor degree from an accredited institution.
3. Overall grade point average in undergraduate work of 3.0 or higher or have a grade point average of 3.0 or higher for the last 60 semester hours of college or university credit.
4. Interview with School of Education Graduate Committee.
5. Three professional letters of recommendation.

Preference will be given to individuals who have at least one year of successful teaching experience in grades K-12. A one-year internship will count as the preferred year of successful teaching.

Preference will be given to practicing teachers who have access to an established classroom.

Discipline Core Requirements:

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<tr>
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<td>Project III</td>
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</table>

Emphasis Requirements: 24 Credits

Students bring in 12 credits from 5000 level courses earned through state endorsement in English as a Second Language.

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<th>Course Code</th>
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<td>EDUC 6320</td>
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</tr>
<tr>
<td>EDUC 6330</td>
<td>Diversity and Differentiation in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6300</td>
<td>Curriculum Design</td>
<td>3</td>
</tr>
<tr>
<td>or EDUC 6412</td>
<td>Adult Learning--Theory and Practice</td>
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<td>EDUC 6311</td>
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<tr>
<td>EDUC 6082</td>
<td>Equitable Technology Integration for Practitioners (3)</td>
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</tbody>
</table>

Graduation Requirements

1. Complete all courses with a grade of B- or better with an overall GPA of 3.0 or higher.
2. Graduate project proposal accepted by School of Education Graduate Committee.
3. Graduate project completed and accepted by the School of Education Graduate Committee.
4. Courses and project requirements must be finished within a five year period. No courses will apply toward graduation that are older than five years.

Master of Education - Gifted and Talented Education Emphasis, M.Ed.

Careers

1. Plan curriculum and design instruction to enhance student learning.
2. Engage and support all students in learning.
3. Assess and evaluate student learning.
4. Demonstrate professionalism to support student learning

Related Careers

- Instructional Coordinators

Requirements
The Master of Education Degree (M.Ed.) at Utah Valley University is an applied master’s program aimed at building the instructional skills and professional competency of teachers. Currently there are eleven emphases for participants: Applied Behavioral Analysis; Educational Leadership; Educational Technology; Elementary Mathematics; Elementary STEM, English as a Second Language (ESL), Gifted and Talented Education, Higher Education Leadership, Reading I, Secondary Teaching, and Teacher Leadership. The M.Ed. program emphasizes coursework that prepares teachers to become instructional leaders, with classes in advanced pedagogy, subject matter content, curriculum design, and assessment. Core coursework in research methods is required of participants in all options, however, students select a topic for a culminating project according to their interest or area of licensure in K-12 education.

Total Program Credits: 36

Matriculation Requirements:

1. Application for admission.
2. Bachelor degree from an accredited institution.
3. Overall grade point average in undergraduate work of 3.0 or higher or have a grade point average of 3.0 or higher for the last 60 semester hours of college or university credit.
4. Interview with School of Education Graduate Committee.
5. Three professional letters of recommendation.

Preference will be given to individuals who have at least one year of successful teaching experience in grades K-12. A one-year internship will count as the preferred year of successful teaching.

Preference will be given to practicing teachers who have access to an established classroom.

Discipline Core Requirements: 12 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>EDUC 6100</td>
<td>Research Methodology</td>
<td>3</td>
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<tr>
<td>EDUC 6110</td>
<td>Applied Statistics for Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6200</td>
<td>Masters Project</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 691R</td>
<td>Project I</td>
<td>1</td>
</tr>
</tbody>
</table>

Related Careers

- Instructional Coordinators

Diversity and Differentiation in the Classroom

21st Century Instruction and Assessment

Diversity and Differentiation in the Classroom

Curriculum Design

or Adult Learning--Theory and Practice

Choose one of the following

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 6411</td>
<td>Instructional Coaching (undefined)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6311</td>
<td>Introduction to Exceptional Students (undefined)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6082</td>
<td>Equitable Technology Integration for Practitioners (3)</td>
<td>3</td>
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Education Graduate Programs
### Education Graduate Programs

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>EDUC 692R</td>
<td>Project II</td>
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</tr>
<tr>
<td>EDUC 693R</td>
<td>Project III</td>
<td>1</td>
</tr>
</tbody>
</table>

**Emphasis Requirements:** 24 Credits

Students bring in 12 credits from 5000 level courses earned through state endorsement in Gifted and Talented Education.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 6320</td>
<td>21st Century Instruction and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6330</td>
<td>Diversity and Differentiation in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6300</td>
<td>Curriculum Design</td>
<td>3</td>
</tr>
<tr>
<td>or EDUC 6412</td>
<td>Adult Learning--Theory and Practice</td>
<td>3</td>
</tr>
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<tbody>
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<tr>
<td>EDUC 6412</td>
<td>Introduction to Exceptional Students</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6082</td>
<td>Equitable Technology Integration for Practitioners (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Graduation Requirements**

1. Complete all courses with a grade of B- or better with an overall GPA of 3.0 or higher.
2. Graduate project proposal accepted by School of Education Graduate Committee.
3. Graduate project completed and accepted by the School of Education Graduate Committee.
4. Courses and project requirements must be finished within a five year period. No courses will apply toward graduation that are older than five years.

**Master of Education - Gifted and Talented Education Emphasis, M.Ed.**

**Careers**

1. Plan curriculum and design instruction to enhance student learning.
2. Engage and support all students in learning.
3. Assess and evaluate student learning.
4. Demonstrate professionalism to support student learning.

**Related Careers**

- Instructional Coordinators

**Master of Education - Reading I Emphasis, M.Ed.**

**Requirements**

The Master of Education Degree (M.Ed.) at Utah Valley University is an applied master’s program aimed at building the instructional skills and professional competency of teachers. Currently there are eleven emphases for participants: Applied Behavioral Analysis; Educational Leadership; Educational Technology; Elementary Mathematics; Elementary STEM, English as a Second Language (ESL), Gifted and Talented Education, Higher Education Leadership, Reading I, and Teacher Leadership. The M.Ed. program emphasizes coursework that prepares teachers to become instructional leaders, with classes in advanced pedagogy, subject matter content, curriculum design and assessment. Core coursework in research methods is required of participants in all options, however, students select a topic for a culminating project according to their interest or area of licensure in K-12 education.

**Total Program Credits: 36**

---

1. Application for admission.
2. Bachelor degree from an accredited institution.
3. Overall grade point average in undergraduate work of 3.0 or higher or have a grade point average of 3.0 or higher for the last 60 semester hours of college or university credit.
4. Interview with School of Education Graduate Committee.
5. Three professional letters of recommendation.

Preference will be given to individuals who have at least one year of successful teaching experience in grades K-12. A one-year internship will count as the preferred year of successful teaching. Preference will be given to practicing teachers who have access to an established classroom.

**Discipline Core Requirements:** 12 Credits

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<tr>
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<td>Applied Statistics for Education</td>
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<td>EDUC 6200</td>
<td>Masters Project</td>
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<td>EDUC 691R</td>
<td>Project I</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 692R</td>
<td>Project II</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 693R</td>
<td>Project III</td>
<td>1</td>
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</table>

**Emphasis Requirements:** 24 Credits

Students bring in 12 credits from 5000 level courses earned through state endorsement in Reading I.

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EDUC 6320</td>
<td>21st Century Instruction and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6330</td>
<td>Diversity and Differentiation in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6300</td>
<td>Curriculum Design</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6412</td>
<td>Adult Learning--Theory and Practice</td>
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<tbody>
<tr>
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<td>Instructional Coaching (undefined)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6311</td>
<td>Introduction to Exceptional Students</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6082</td>
<td>Equitable Technology Integration for Practitioners (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Graduation Requirements**

1. Complete all courses with a grade of B- or better with an overall GPA of 3.0 or higher.
2. Graduate project proposal accepted by School of Education Graduate Committee.
3. Graduate project completed and accepted by the School of Education Graduate Committee.
4. Courses and project requirements must be finished within a five year period. No courses will apply toward graduation that are older than five years.

**Master of Education - Reading I Emphasis, M.Ed.**

**Careers**

1. Plan curriculum and design instruction to enhance student learning.
2. Engage and support all students in learning.
The Master of Education Degree (M.Ed.) at Utah Valley University is an applied master’s program aimed at building the instructional skills and professional competency of teachers. Currently there are eleven emphases for participants: Applied Behavioral Analysis; Educational Leadership; Educational Technology; Elementary Mathematics; Elementary STEM, English as a Second Language (ESL); Gifted and Talented Education, Higher Education Leadership, Reading I, Secondary Teaching, and Teacher Leadership. The M.Ed. program emphasizes coursework that prepares teachers to become instructional leaders, with classes in advanced pedagogy, subject matter content, curriculum design, and assessment. Core coursework in research methods is required of participants in all options, however, students select a topic for a culminating project according to their interest or area of licensure in K-12 education. Students taking the M.Ed in Secondary Teaching will first complete the Secondary Teaching Graduate Certificate.

Total Program Credits: 41

Matriculation Requirements:

1. Application for admission.
2. Bachelor degree from an accredited institution.
3. Overall grade point average in undergraduate work of 3.0 or higher or have a grade point average of 3.0 or higher for the last 60 semester hours of college or university credit.
4. Interview with School of Education Graduate Committee.
5. Three professional letters of recommendation.

Preference will be given to individuals who have at least one year of successful teaching experience in grades K-12. A one-year internship will count as the preferred year of successful teaching. Preference will be given to practicing teachers who have access to an established classroom.

Discipline Core Requirements: 12 Credits

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<tbody>
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<td>Research Methodology</td>
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</tr>
<tr>
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<td>Applied Statistics for Education</td>
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<td>Masters Project</td>
<td>3</td>
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<tr>
<td>EDUC 691R</td>
<td>Project I</td>
<td>1</td>
</tr>
<tr>
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<td>EDUC 693R</td>
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Emphasis Requirements: 29 Credits

<table>
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<tr>
<td>EDUC 6300</td>
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<tr>
<td>EDUC 6201</td>
<td>Teacher Performance Assessment Project</td>
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</tr>
<tr>
<td>EDUC 6202</td>
<td>Classroom Management Practicum</td>
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<tr>
<td>EDUC 6203</td>
<td>Student Teaching Graduate Licensure</td>
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<td>EDUC 6311</td>
<td>Introduction to Exceptional Students</td>
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<td>EDUC 6663</td>
<td>Content Area Reading</td>
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<td>EDUC 6330</td>
<td>Diversity and Differentiation in the Classroom</td>
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Graduation Requirements

1. Complete all courses with a grade of B- or better with an overall GPA of 3.0 or higher.
2. Graduate project proposal accepted by School of Education Graduate Committee.
3. Graduate project completed and accepted by the School of Education Graduate Committee.
4. Courses and project requirements must be finished within a five year period. No courses will apply toward graduation that are older than five years.

Master of Education - Secondary Teaching Emphasis, M.Ed.

Careers

1. Plan curriculum and design instruction to enhance student learning.
2. Engage and support all students in learning.
3. Assess and evaluate student learning.
4. Demonstrate professionalism to support student learning

Related Careers

• Instructional Coordinators

Master of Education - Teacher Leadership, M.Ed.

Requirements

The Master of Education Degree (M.Ed.) at Utah Valley University is an applied master’s program aimed at building the instructional skills and professional competency of teachers. Currently there are eleven emphases for participants: Applied Behavioral Analysis; Educational Leadership; Educational Technology; Elementary Mathematics; Elementary STEM, English as a Second Language (ESL); Gifted and Talented Education, Higher Education Leadership, Reading I, and Teacher Leadership. The M.Ed. program emphasizes coursework that prepares teachers to become instructional leaders, with classes in advanced pedagogy, subject matter content, curriculum design and assessment. Core coursework in research methods is required of participants in all options, however, students select a topic for a culminating project according to their interest or area of licensure in K-12 education.

Total Program Credits: 30

Matriculation Requirements:

1. Application for admission.
2. Bachelor degree from an accredited institution.
3. Overall grade point average in undergraduate work of 3.0 or higher or have a grade point average of 3.0 or higher for the last 60 semester hours of college or university credit.
4. Interview with School of Education Graduate Committee.
5. Three professional letters of recommendation.

Preference will be given to individuals who have at least one year of successful teaching experience in grades K-12. A one-year internship will count as the preferred year of successful teaching. Preference will be given to practicing teachers who have access to an established classroom.
Education Graduate Programs

**Discipline Core Requirements:** 12 Credits

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<td>EDUC 693R</td>
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**Emphasis Requirements:** 18 Credits

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<td>EDUC 6300</td>
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</tr>
<tr>
<td>EDUC 6320</td>
<td>21st Century Instruction and Assessment</td>
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</tr>
<tr>
<td>EDUC 6330</td>
<td>Diversity and Differentiation in the Classroom</td>
<td>3</td>
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<td>EDUC 6412</td>
<td>Adult Learning--Theory and Practice</td>
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</tr>
<tr>
<td>EDUC 6400</td>
<td>Contemporary Issues in Teacher Leadership</td>
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</tr>
<tr>
<td>EDUC 6411</td>
<td>Instructional Coaching</td>
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**Graduation Requirements**

1. Complete all courses with a grade of B- or better with an overall GPA of 3.0 or higher.
2. Graduate project proposal accepted by School of Education Graduate Committee.
3. Graduate project completed and accepted by the School of Education Graduate Committee.
4. Courses and project requirements must be finished within a five year period. No courses will apply toward graduation that are older than five years.

**Master of Education - Teacher Leadership, M.Ed.**

**Careers**

1. Plan curriculum and design instruction to enhance student learning.
2. Engage and support all students in learning.
3. Assess and evaluate student learning.
4. Demonstrate professionalism to support student learning

**Related Careers**

- Instructional Coordinators

**Master of Education in Applied Behavioral Analysis, M.Ed.**

**Requirements**

The ABA Graduate program will qualify students to meet the requirements necessary to apply for the Board Certified Behavior Analyst (BCBA) examination. This program includes all required ABA specific coursework and supervised practicum hours.

**Total Program Credits:** 37

**Matriculation Requirements:**

1. Application for admission to the graduate program with application fee by the established deadline.
2. Submit official transcripts from all universities attended.
3. A bachelor's degree from a regionally accredited college/university or the international equivalent.
4. A 3.0 cumulative undergraduate GPA or a 3.0 GPA calculated on the last 60 semester hours (90 quarter hours) of undergraduate work.
5. For international students whose native language is not English, submit official TOEFL or IELTS band scores. A TOEFL score of 80 iBT (550 pBT) or higher, or an IELTS band score of 6.5 or higher within the past two years is required.
6. International students must also meet all US government requirements for international students.
7. The university uses a selective admissions process for admitting students to graduate programs. Meeting minimum admissions criteria does not guarantee admission to the graduate program or to the University as a graduate student.

**Discipline Core Requirements:** 37 Credits

<table>
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<tr>
<th>Course Code</th>
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<td>EDAB 6010</td>
<td>ABA Concepts and Principles</td>
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<td>EDAB 6020</td>
<td>Ethics and Professional Competencies in Applied Behavioral Analysis</td>
<td>3</td>
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<tr>
<td>EDAB 6030</td>
<td>Developing and Changing Behaviors</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6040</td>
<td>Measurement in Single Subject Design</td>
<td>3</td>
</tr>
<tr>
<td>EDAB 6050</td>
<td>Functional Behavior Assessment and Treatment</td>
<td>3</td>
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<td>EDAB 6060</td>
<td>Advanced Topics in Applied Behavior Analysis</td>
<td>3</td>
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<td>EDAB 6070</td>
<td>Training Supervision and Performance Monitoring in Applied Behavior Analysis</td>
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<td>EDAB 6080</td>
<td>Introduction to Practice in ABA</td>
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<td>EDAB 689R</td>
<td>ABA Supervision Seminar</td>
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<td>EDUC 6100</td>
<td>Group Research Design in ABA</td>
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<td>EDUC 6110</td>
<td>Applied Statistics for Education</td>
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</table>
Leadership at Utah Valley University is an applied master’s program aimed at building the administrative and leadership skills and professional competency of entry and middle level administrators in higher education institutions. The M.Ed. program emphasizes aspects of higher education institutions. The Master of Education Degree (M.Ed.) in Higher Education Leadership program emphasizes aspects of higher education institutions.

**Total Program Credits:** 30

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
<th>12 Credits</th>
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</thead>
<tbody>
<tr>
<td>1. Application for admission to the graduate program with application fee by the established deadline.</td>
<td></td>
</tr>
<tr>
<td>2. Submit official transcripts from all universities attended.</td>
<td></td>
</tr>
<tr>
<td>3. A bachelor's degree from a regionally accredited college/university or the international equivalent.</td>
<td></td>
</tr>
<tr>
<td>4. A 3.0 cumulative undergraduate GPA or a 3.0 GPA calculated on the last 60 semester hours (90 quarter hours) of undergraduate work.</td>
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<tr>
<td>5. Letter of recommendation from supervising administrator.</td>
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<tr>
<td>6. For international students whose native language is not English, submit official TOEFL or IELTS band scores. A TOEFL score of 80 IBT (550 pBT) or higher, or an IELTS band score of 6.5 or higher within the past two years is required.</td>
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<td>7. International students must also meet all US government requirements for international students.</td>
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<tr>
<td>8. Interview with graduate program committee.</td>
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<td>9. The university uses a selective admissions process for admitting students to graduate programs. Meeting minimum admissions criteria does not guarantee admission to the graduate program or to the University as a graduate student.</td>
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**Discipline Core Requirements:**

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<td>EDHE 6410</td>
<td>Foundations and Contexts of Higher Education</td>
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<td>EDHE 6420</td>
<td>Diversity in Higher Education</td>
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<tr>
<td>EDHE 6430</td>
<td>Student Success and Development</td>
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<td>EDHE 6440</td>
<td>Leadership in Higher Education</td>
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<tr>
<td>EDHE 6450</td>
<td>Law-Policy-Ethics in Higher Education</td>
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<tr>
<td>EDHE 6460</td>
<td>Planning-Budget-Organizational Effectiveness</td>
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<td>EDHE 6200</td>
<td>Higher Education Leadership Capstone Project</td>
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<td>EDHE 696R</td>
<td>Higher Education Leadership Capstone</td>
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</table>

**Graduation Requirements:**

**Master of Education in Higher Education Leadership, M.Ed.**

**Careers**

- Managers, All Other
- Clinical, Counseling, and School Psychologists
- Psychologists, All Other
- Psychology Teachers, Postsecondary

**Requirements**

The Master of Education Degree (M.Ed.) in Higher Education Leadership at Utah Valley University is an applied master's program aimed at building the administrative and leadership skills and professional competency of entry and middle level administrators in institutions of higher education. The M.Ed. program emphasizes aspects of higher education institutions. The Master of Education Degree (M.Ed.) in Higher Education Leadership at Utah Valley University is an applied master's program aimed at building the administrative and leadership skills and professional competency of entry and middle level administrators in institutions of higher education. The M.Ed. program emphasizes aspects of higher education institutions.

**Total Program Credits:** 36

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<tr>
<td>8. Interview with graduate program committee.</td>
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</table>

**Related Careers**

- Instructional Coordinators

**Master of Education in K-12 Education Leadership, M.Ed.**

**Careers**

- Psychologists, All Other
- Clinical, Counseling, and School Psychologists
- Managers, All Other
- Psychology Teachers, Postsecondary

**Requirements**

The Master of Education (M.Ed.) in K-12 Educational Leadership program in the UVU School of Education is based on state and national standards, and prepares educational leader for elementary and secondary schools, and district offices. The leadership program is aligned with all applicable Utah Board of Education rules and meets all state requirements for the Educational Leadership License Area of Concentration. The Educational Leadership program is designed to build individual school leaders in the competency areas identified in the state and national standards, including: Personal Leadership & Organizational Design; Organizational Operations and Management; Leading Evidence-Based Curriculum, Instruction, & Assessment; Leading Professional Learning Communities; and Leading Change, Innovation & Educational Entrepreneurship. Candidates are required to complete clinical work that is embedded within the coursework and in individual work carried on throughout the program.

**Total Program Credits:** 36

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<tr>
<th>Matriculation Requirements:</th>
<th>36 Credits</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>2. Submit official transcripts from all universities attended.</td>
<td></td>
</tr>
<tr>
<td>3. A bachelor's degree from a regionally accredited college/university or the international equivalent.</td>
<td></td>
</tr>
<tr>
<td>4. A 3.0 cumulative undergraduate GPA or a 3.0 GPA calculated on the last 60 semester hours (90 quarter hours) of undergraduate work.</td>
<td></td>
</tr>
<tr>
<td>5. Letter of recommendation from supervising administrator.</td>
<td></td>
</tr>
<tr>
<td>6. For international students whose native language is not English, submit official TOEFL or IELTS band scores. A TOEFL score of 80 IBT (550 pBT) or higher, or an IELTS band score of 6.5 or higher within the past two years is required.</td>
<td></td>
</tr>
<tr>
<td>7. International students must also meet all US government requirements for international students.</td>
<td></td>
</tr>
<tr>
<td>8. Interview with graduate program committee.</td>
<td></td>
</tr>
</tbody>
</table>
Education Graduate Programs

9. The university uses a selective admissions process for admitting students to graduate programs. Meeting minimum admissions criteria does not guarantee admission to the graduate program or to the University as a graduate student.

Discipline Core Requirements: 36 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 6100</td>
<td>Research Methodology</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6110</td>
<td>Applied Statistics for Education</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 6120</td>
<td>Personal Leadership and Organizational Design</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 6130</td>
<td>School Operations and Management-Finance/Law/Safety</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 6140</td>
<td>Instructional Leadership</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 6150</td>
<td>School Operations and Management-Communication/Planning/HR/Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 6160</td>
<td>Developing Positive School and Community Culture</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 6170</td>
<td>Leading Change/Innovation/Educational Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 6200</td>
<td>Current Research in Education Leadership</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6320</td>
<td>21st Century Instruction and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6330</td>
<td>Diversity and Differentiation in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 698R</td>
<td>Clinical Portfolio</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Residency hours -- all courses must be taken at UVU.
2. Satisfactory completion of all coursework with a minimum overall 3.0 GPA.
3. All courses passed with a B- or higher.
4. Pass state required licensing exam.
5. Complete a minimum of 36 credits.

Master of Education in K-12 Education Leadership, M.Ed.

Careers
1. Students will develop competency in the development, articulation, implementation, and stewardship of a shared vision for education.
2. Students will develop competency in supporting teaching and learning by facilitating coherent systems of curriculum, instruction, and assessment.
3. Students will develop competency in managing school operations and resources.
4. Students will develop competency in engaging families and the community in order to create an inclusive, caring, safe, and supportive school environment.

5. Students will develop competency in acting ethically and professionally in leadership, and honoring the heritage and background of each student, promoting the equity of educational opportunity for all students.
6. Students will develop competency to act as agents of continuous improvement and foster a professional community of teachers and staff to promote each student's academic success and well-being.

Related Careers
- Instructional Coordinators

Master of Education in School Counseling, M.Ed.

Requirements
The Master of Education in School Counseling (MEdSC) program in the UVU School of Education prepares individuals to provide school counseling services in grades P-12 in public and private schools, as well as work in related fields at universities or colleges. The curriculum is aligned to the learning standards required for licensure by the Utah State Board of Education including Professional Counseling Orientation and Ethical Practice, Social and Cultural Diversity, Human Growth and Development, Career Development, Counseling and Helping Relationships, Group Counseling and Group Work, Assessment and Testing, and Research and Program Evaluation.

Total Program Credits: 51

Matriculation Requirements:
1. Application for admission to the graduate program with application fee by the established deadline.
2. Submit official transcripts from all universities attended.
3. A bachelor's degree from a regionally accredited college/university or the international equivalent.
4. A 3.0 cumulative undergraduate GPA or a 3.0 GPA calculated on the last 60 semester hours (90 quarter hours) of undergraduate work.
5. For international students whose native language is not English, submit official TOEFL or IELTS band scores. A TOEFL score of 80 iBT (550 pBT) or higher, or an IELTS band score of 6.5 or higher within the past two years is required.
6. International students must also meet all US government requirements for international students.
7. The university uses a selective admissions process for admitting students to graduate programs. Meeting minimum admissions criteria does not guarantee admission to the graduate program or to the University as a graduate student.

Discipline Core Requirements: 51 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMHC 6010</td>
<td>Theories of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CMHC 6020</td>
<td>Techniques of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CMHC 6060</td>
<td>Psychological Assessment</td>
<td>3</td>
</tr>
<tr>
<td>CMHC 6070</td>
<td>Group Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CMHC 6160</td>
<td>Human Development</td>
<td>3</td>
</tr>
<tr>
<td>EDCO 6010</td>
<td>Foundational Principles of School Counseling</td>
<td>3</td>
</tr>
<tr>
<td>EDCO 6020</td>
<td>Ethics and Professional</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>EDCO 6030</td>
<td>Career Counseling</td>
<td>3</td>
</tr>
<tr>
<td>EDCO 6040</td>
<td>Multicultural Counseling</td>
<td>3</td>
</tr>
<tr>
<td>EDCO 6050</td>
<td>Interventions in Schools</td>
<td>3</td>
</tr>
<tr>
<td>EDCO 6060</td>
<td>College and Career Readiness</td>
<td>3</td>
</tr>
<tr>
<td>EDCO 6100</td>
<td>Research and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>EDCO 6710</td>
<td>School Counseling Practicum</td>
<td>3</td>
</tr>
<tr>
<td>EDCO 689R</td>
<td>School Counseling Internship</td>
<td>6</td>
</tr>
<tr>
<td>EDUC 6110</td>
<td>Applied Statistics for Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6311</td>
<td>Introduction to Exceptional Students</td>
<td>3</td>
</tr>
</tbody>
</table>

**Matriculation Requirements:**

Requirements for admission to the Graduate Certificate in Secondary Teaching (GCST) program include the following:

1. Verification of a bachelor's degree from an accredited university in a recognized content major (or with equivalent coursework) in a discipline taught in Utah secondary schools and for which UVU can recommend a secondary teaching license. Any coursework required by the Utah State Board of Education (USBE) for a content major* must be completed with a grade of C or higher prior to admission into the GCST program.
2. A cumulative GPA of 3.0 or a GPA of 3.0 for the last 60 credits of university coursework.
3. Passing scores from the Praxis II [subject-area test(s)] as required by the USBE.
4. Successful completion of a background check through USBE.

* Students will have completed a content-specific methods course prior to admission into the program. These courses are not offered in the School of Education, but in the appropriate content areas across the University. The following courses would be examples.

- ART 3500 Secondary Art Education Methods I WE (3)
- ART 3510 Secondary Art Education Methods II WE (3)
- ENGL 4240 Grammar and Unit Design in the English Classroom (3)
- ENGL 4220 Teaching Reading and Literature (3)
- ENGL 4230 Teaching Writing (3)
- LANG 4200 Methods of Teaching a Foreign Language (3)
- SCIE 4220 Teaching Methods in Science II (3)

**Discipline Core Requirements:** 29 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 6082</td>
<td>Equitable Technology Integration for Practitioners</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6201</td>
<td>Teacher Performance Assessment Project</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 6202</td>
<td>Classroom Management Practicum</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6203</td>
<td>Student Teaching Graduate Licensure</td>
<td>6</td>
</tr>
<tr>
<td>EDUC 6300</td>
<td>Curriculum Design</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6320</td>
<td>21st Century Instruction and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6330</td>
<td>Diversity and Differentiation in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6311</td>
<td>Introduction to Exceptional Students</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6663</td>
<td>Content Area Reading</td>
<td>3</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of all required coursework, with a grade of B- or better.
2. Completion of the Teacher Performance Assessment, with a score of 42 or better.
3. Successful completion of student teaching or internship hours.
4. Residency hours -- minimum of 20 credit hours through course attendance at UVU.

**Education Graduate Programs**

**Graduation Requirements:**

1. Residency hours -- all courses must be taken at UVU.
2. Satisfactory completion of all coursework with a minimum 3.0 GPA.
3. All courses passed with a B- or higher.
4. Successfully complete all practicum and internship hours.
5. Complete a minimum of 51 credits.

**Master of Education in School Counseling, M.Ed. Careers**

1. Understand the history and development of school counseling including local and national school counseling models
2. Know the major theories regarding physical development through the lifespan
3. Develop competency in legal and ethical considerations specific to school counseling
4. Understand the purposes and theories of individual and group counseling
5. Implement interventions to promote college and career readiness
6. Recognize the various types of assessments specific to P-12 education
7. Use data to advocate for programs and students

**Secondary Teaching, Graduate Certificate Requirements**

The Graduate Certificate in Secondary Teaching is designed for individuals who have earned a bachelor's degree. They must have completed coursework in one of the teaching major subject areas for secondary education approved by the Utah State Board of Education (USBE) prior to admission into either program. The primary goal of the program will be to ensure that teacher candidates, through support, supervision, and evaluation, can demonstrate and apply the competencies required by the USBE for teacher licensure. Includes the basic coursework and field experiences required of all teacher candidates for an initial teaching license, ensuring that competencies in both subject knowledge and pedagogy are met.

**Total Program Credits:** 29
Elementary Education

Elementary Education

The Elementary Education department is in the School of Education. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Elementary Education department, visit their website.

Elementary Education department

DEPARTMENT CHAIR
TUFT, Elaine Professor

FACULTY
BYRD, Elaine H. Professor
DISNEY, Andria R. Assistant Professor
EGGINGTON, Kalani Associate Professor
ESCALANTE, Debora L. Associate Professor
GEARING, Nicole Assistant Professor
GOODMAN, Andrew Assistant Professor
KANG, Mi Ok Associate Professor
MEASOM, Keri Lecturer
PATCH, Michael Associate Professor
RUGGLES, Krista Associate Professor
SERMON, Tracy Sr. Lecturer
TUFT, Elaine Professor
WATERS, Sandie Associate Professor

Course Descriptions

Edu Child and Family Studies.............................643
Edu Early Childhood Education.............................648
Edu Elementary Education.................................649

Degrees & Programs

Early Childhood Education, A.S.

Requirements

Individuals who earn an Associate Degree in Early Childhood Education are prepared to teach preschool in private and corporate centers, Head Start, and public education tuition preschools, or work as center directors. The Associate Degree in Early Childhood can be planned to fill the majority of the requirements for entry into the Elementary Education Program. The UVU Early Childhood Education program is accredited by the Northwest Commission on Colleges and Universities. The UVU Teacher Education Preschool is accredited by the National Association for the Education of Young Children.

Total Program Credits: 60

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4.0)</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5.0)</td>
</tr>
<tr>
<td>MATH 2000</td>
<td>Algebraic Reasoning with Modeling QL (3.0)</td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (3.0)</td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5.0)</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3.0)</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3.0)</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3.0)</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3.0)</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3.0)</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3.0)</td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
</tr>
<tr>
<td>HLTH 2900</td>
<td>Health Education for Elementary Teachers</td>
</tr>
</tbody>
</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>Department</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td></td>
</tr>
<tr>
<td>Physical Science</td>
<td></td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
</tr>
<tr>
<td>Fine Arts</td>
<td></td>
</tr>
<tr>
<td>PSY 1100</td>
<td>Human Development Life Span SS (C+ grade or higher)</td>
</tr>
</tbody>
</table>

Discipline Core Requirements: 25 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDEC 1640</td>
<td>Children's Music and Movement</td>
</tr>
<tr>
<td>EDEL 2200</td>
<td>Introduction to Educational Technology</td>
</tr>
<tr>
<td>EDEC 2300</td>
<td>Including Young Diverse Learners</td>
</tr>
<tr>
<td>EDEC 2500</td>
<td>Child Development Birth to Eight Years</td>
</tr>
<tr>
<td>EDEC 2600</td>
<td>Introduction to Early Childhood Education</td>
</tr>
<tr>
<td>EDEC 2610</td>
<td>Child Guidance</td>
</tr>
<tr>
<td>EDEC 2620</td>
<td>Early Childhood Curriculum</td>
</tr>
<tr>
<td>EDEC 2630</td>
<td>Literacy and Literature for Early Childhood</td>
</tr>
<tr>
<td>EDEC 2700</td>
<td>Early Childhood Practicum</td>
</tr>
<tr>
<td>EDEC 2720</td>
<td>Early Childhood Assessment</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above. C- grade or higher in all program classes unless otherwise specified.
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. First aid/CPR certification, food handler's permit, portfolio review and acceptance by Education Committee
## Early Childhood Education, A.S.

### Careers

1. Program graduates identify and conduct themselves as members of the early childhood profession.
2. Program graduates understand that successful early childhood education depends upon partnerships with children’s families and communities.
3. Program graduates understand that child observation, documentation, and other forms of assessment are central to the practice of all early childhood professionals.
4. Program graduates are grounded in a child development knowledge base.
5. Program graduates use their knowledge of academic disciplines to design, implement, and evaluate experiences that promote positive development and learning for each and every young child.
6. Program graduates understand that teaching and learning with young children is a complex enterprise, and its details vary depending on children's ages, characteristics, and the settings within which teaching and learning occur.

### Related Careers
- Preschool Teachers, Except Special Education
- Kindergarten Teachers, Except Special Education

## Pre-Elementary Education, A.S.

### Requirements
Prepares students for matriculation into the Bachelor of Science Professional Elementary Education program.

### Total Program Credits: 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Context CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 2000 Algebraic Reasoning with Modeling QL (3)</td>
<td></td>
</tr>
</tbody>
</table>

| Complete one of the following: | 3 |
| HIST 2700 US History to 1877 AS (3) | |
| and HIST 2710 US History since 1877 AS (3) | |
| HIST 1700 American Civilization AS (3) | |
| HIST 1740 US Economic History AS (3) | |
| POLS 1000 American Heritage SS (3) | |
| POLS 1100 American National Government AS (3) | |

| Complete the following: | 10 |
| PHIL 2050 Ethics and Values IH | 3 |
| HLTH 2900 Health Education for Elementary Teachers | 2 |

**Distribution Courses:**
- Biology 3

**Discipline Core Requirements:** 15 Credits
- EDEL 1010 Introduction to Education 2
- EDEL 2200 Introduction to Educational Technology 2
- EDEL 2330 Children's Literature 2
- MATH 2010 Mathematics for Elementary Teachers I 1
- MATH 2020 Mathematics for Elementary Teachers II 1
- PETE 2150 Elementary Physical Education SPARK Method 2

**Elective Requirements:** 10 Credits

**Graduation Requirements:**
1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

**Footnotes**
1. Must be completed with a C grade or higher.
2. Must be completed with a B- grade or higher.

## Pre-Elementary Education, A.S.

### Careers

1. A student will acquire a foundation of intellectual and practical skills including communication, quantitative reasoning, and technical and information literacies.
2. A student will demonstrate knowledge of human cultures and the physical and natural world in the following areas of essential study: arts, history, humanities, languages, science and mathematics, social sciences.
3. Prepares students for matriculation into the Bachelor of Science Professional Elementary Education program.
**Elementary Education**

**Related Careers**
- Preschool Teachers, Except Special Education
- Kindergarten Teachers, Except Special Education

**Early Care and Education, Certificate of Completion**

**Requirements**
This certificate is for students interested in increasing their skills in working with children in child care and preschool programs. Individuals are prepared to work as technicians in public education classrooms and as teacher aides in private centers or Head Start.

**Total Program Credits: 30**

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>28 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the following courses:</td>
<td>1</td>
</tr>
<tr>
<td>PSY 1100 Human Development Life Span (C grade or higher)</td>
<td>3</td>
</tr>
<tr>
<td>EDEC 1640 Childrens Music and Movement</td>
<td>2</td>
</tr>
<tr>
<td>EDEC 2300 Including Young Diverse Learners</td>
<td>2</td>
</tr>
<tr>
<td>or EDS 340G Exceptional Students Gl (2.0)</td>
<td></td>
</tr>
<tr>
<td>EDEC 2500 Child Development Birth to Eight Years</td>
<td>3</td>
</tr>
<tr>
<td>EDEC 2600 Introduction to Early Childhood Education</td>
<td>2</td>
</tr>
<tr>
<td>EDEC 2610 Child Guidance</td>
<td>3</td>
</tr>
<tr>
<td>EDEC 2620 Early Childhood Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDEC 2630 Literacy and Literature for Early Childhood</td>
<td>3</td>
</tr>
<tr>
<td>EDEC 2700 Early Childhood Practicum</td>
<td>3</td>
</tr>
<tr>
<td>EDEC 2720 Early Childhood Assessment</td>
<td>2</td>
</tr>
<tr>
<td>EDEL 2200 Introduction to Educational Technology</td>
<td>2</td>
</tr>
<tr>
<td>Elective Requirements:</td>
<td>2 Credits</td>
</tr>
<tr>
<td>Advisor Approval</td>
<td>2</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**
1. Completion of a minimum of 30 semester credits.
2. Overall grade point average of 2.0 (C) or above. C- grade or higher in all program courses unless otherwise specified.
3. Residency hours -- minimum of 10 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. First aid/CPR certification, food handler's permit, portfolio review and acceptance by Education Committee.

**Early Care and Education, Certificate of Completion Careers**

1. Program graduates identify and conduct themselves as members of the early childhood profession.
2. Program graduates understand that knowledge of child development, child-centered environments and learning experiences, and appropriate assessment are central to the practice of all early childhood professionals.
3. Program graduates use their knowledge of academic disciplines to design, implement, and evaluate experiences that promote positive development and learning for each young child.

**Related Careers**
- Preschool Teachers, Except Special Education
- Kindergarten Teachers, Except Special Education

**Elementary Education, B.S.**

**Requirements**
The Professional Elementary Teacher Education Program at Utah Valley University is designed to prepare quality, entry level candidates for teaching in elementary education programs grades K-6. Students successfully completing the UVU professional teacher education program graduation and licensure requirements receive a baccalaureate degree in Elementary Education and a Level I Utah Professional Teaching License. To continue in the teacher education program, students are expected to maintain all program standards. They must maintain expected levels of competence in all coursework, field work, and student teaching with all course grades at or above a B- and a program GPA of 3.0 or higher higher. Additionally, teacher candidates are expected to adhere to standards of personal integrity, responsibility, and citizenship commonly expected of professional educators. The UVU teacher education program is accredited by the Association for Advancing Quality in Educator Preparation (AAQEP), the Utah State Office of Education, and the Northwest Commission on Colleges and Universities.

**Total Program Credits: 120**

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education Requirements:</td>
<td></td>
</tr>
<tr>
<td>General Education courses:</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 1005 Literacies and Composition Across Contexts CC (5.0)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
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<tr>
<td>MATH 2000 Algebraic Reasoning with Modeling QL(3)</td>
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</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
</tbody>
</table>

**Footnotes**
1. ACT 21+ or ENGH 1005 or ENGL 1010 with a C- grade or higher except for PSY 1100, EDEC 1640, and EDEL 2200
2. This course must be taken before EDEC 2300 and EDEC 2500
3. PSY 1100 is a prerequisite for these courses
4. Must receive a B- grade or higher in this course prior to enrolling in EDEC 2700 and EDEC 2720
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td></td>
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<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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<td>Complete the following:</td>
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<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
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<td>HLTH 2900</td>
<td>Health Education for Elementary Teachers</td>
<td>2</td>
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<td>Distribution Courses:</td>
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<tr>
<td>Biology</td>
<td>3</td>
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<tr>
<td>Physical Science</td>
<td>3</td>
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<tr>
<td>Additional Biology or Physical Science</td>
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<tr>
<td>Humanities</td>
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<td>Complete one of the following:</td>
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<tr>
<td>ART 2100</td>
<td>Teaching Art for Children FF (3)</td>
<td></td>
</tr>
<tr>
<td>or DANC 2100</td>
<td>Teaching Dance for Children FF (3)</td>
<td></td>
</tr>
<tr>
<td>or MUSC 2100</td>
<td>Teaching Music for Children FF (3)</td>
<td></td>
</tr>
<tr>
<td>or THEA 2100</td>
<td>Teaching Theatre For Children FF (3)</td>
<td></td>
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<td>PSY 1100</td>
<td>Human Development Life Span</td>
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<td>Discipline Core Requirements:</td>
<td>65 Credits</td>
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<tr>
<td>Pre-Professional Core Requirements:</td>
<td></td>
<td></td>
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<tr>
<td>EDEL 1010</td>
<td>Introduction to Education 2</td>
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<tr>
<td>EDEL 2200</td>
<td>Introduction to Educational Technology 2</td>
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<tr>
<td>EDEL 2330</td>
<td>Childrens Literature 2</td>
<td>3</td>
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<tr>
<td>MATH 2010</td>
<td>Mathematics for Elementary Teachers I 3</td>
<td>3</td>
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<tr>
<td>MATH 2020</td>
<td>Mathematics for Elementary Teachers II 3</td>
<td>3</td>
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<tr>
<td>PETE 2150</td>
<td>Elementary Physical Education SPARK Method 2</td>
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<tr>
<td>Professional Education Core Requirements:</td>
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<tr>
<td>EDEL 3000</td>
<td>Educational Psychology</td>
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<tr>
<td>EDEL 340G</td>
<td>Exceptional Students GI</td>
<td>2</td>
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<tr>
<td>EDEL 3100</td>
<td>Kindergarten Classroom</td>
<td>2</td>
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<tr>
<td>EDEL 325G</td>
<td>Equitable Technology Integration GI</td>
<td>2</td>
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<tr>
<td>EDEL 330G</td>
<td>Multicultural Education GI</td>
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<tr>
<td>EDEL 3350</td>
<td>Instructional Design and Assessment</td>
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<td>EDEL 4200</td>
<td>Elementary Learning Environments I</td>
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<td>EDEL 4210</td>
<td>Elementary Learning Environments II</td>
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<td>EDEL 4230</td>
<td>Elementary Learning Environments III</td>
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<td>EDEL 4240</td>
<td>Elementary Learning Environments IV</td>
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<td>EDEL 4400</td>
<td>Elementary Literacy Instruction and Assessment I</td>
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<td>Complete the following:</td>
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<tr>
<td>EDEL 4410</td>
<td>Elementary Literacy Instruction and Assessment II WE</td>
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<tr>
<td>EDEL 4420</td>
<td>Elementary Language Arts Instruction and Assessment</td>
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<td>EDEL 443G</td>
<td>Teaching Methods for English Learners GI WE</td>
<td>3</td>
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<tr>
<td>EDEL 4510</td>
<td>Elementary Mathematics Instruction and Assessment I</td>
<td>3</td>
</tr>
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<td>EDEL 4520</td>
<td>Elementary Science Instruction and Assessment</td>
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<td>EDEL 4530</td>
<td>Elementary Social Studies Instruction and Assessment</td>
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<tr>
<td>EDEL 4540</td>
<td>Elementary Fine Arts Instruction and Assessment</td>
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<tr>
<td>EDEL 4550</td>
<td>Elementary Mathematics Instruction and Assessment II</td>
<td>3</td>
</tr>
<tr>
<td>EDEL 4620</td>
<td>Differentiation for Academic Diversity</td>
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<tr>
<td>EDEL 4880</td>
<td>Student Teaching--Grades K-6</td>
<td>9</td>
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<tr>
<td>EDEL 4980</td>
<td>Elementary Education Capstone Seminar</td>
<td>1</td>
</tr>
<tr>
<td>EDEL 4990</td>
<td>Teacher Performance Assessment Project</td>
<td>2</td>
</tr>
<tr>
<td>Elective Requirements:</td>
<td>10 Credits</td>
<td></td>
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<tr>
<td>Complete additional credits to meet requirements</td>
<td>10</td>
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</tr>
<tr>
<td>Recommended elective courses:</td>
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<tr>
<td>ART 2100</td>
<td>Teaching Art for Children FF (3)</td>
<td></td>
</tr>
<tr>
<td>or DANC 2100</td>
<td>Teaching Dance for Children FF (3)</td>
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<td>Teaching Music for Children FF (3)</td>
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</tr>
<tr>
<td>or THEA 2100</td>
<td>Teaching Theatre For Children FF (3)</td>
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<tr>
<td>SLSS 120R</td>
<td>Testing Strategies for Educators (1)</td>
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</table>

Graduation Requirements:

1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 3.0 or above.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched courses.

NOTE: Application forms are available at the beginning of each Spring semester, must be completed by March 1st, and can be obtained in the Education Department, 801-863-8527.

Footnotes

1. Students must complete all Pre-Professional and General Education courses with an overall GPA of 3.0 before they are formally admitted into the Teacher Preparation Program.
2. Must be completed with a grade of B- or higher.
3. Course requires a C grade or higher

Elementary Education, B.S.

Careers

1. Design and implement effective instructional practices.
2. Create safe and productive learning environments.
3. Apply knowledge of developmental patterns to instructional design and assessment.
Elementary Education

Related Careers

- Elementary School Teachers, Except Special Education
Emergency Services

Emergency Services

The Emergency Services department is in the College of Health and Public Services. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Emergency Services department, visit their website.

Emergency Services department

DEPARTMENT CHAIR
FISHER, John Professor

FACULTY
ALLRED, Steven Associate Professor
BERGE, Nichole Lecturer
BROOME, Rodger Associate Professor
BYRNES, Andrew Professor
FISHER, John Professor
HOLLEY, Steve Assistant Professor
LINDQUIST, Chris Assistant Professor
MAXFIELD, Jeff Professor
MCCARTHY, Kevin P. Assistant Professor
MCENTIRE, David Professor
MITTELMAN, Margaret A. Professor
NOLL, Gary B. Professor
RUSSELL, Eric James Associate Professor

Course Descriptions

Emergency Services.........................................................688
Emerg Serv Aircraft Resc FF..............................................686
Emergency Services Emerg Care.......................................686
Emergency Services FireFighter.........................................688
Emergency Services FireOfficer.........................................690
Emergency Services Emerg Mgmt.....................................694
Emergency Services Wildland FF......................................696

Degrees & Programs

Emergency Services - Fire Officer Emphasis, A.A.S.

Requirements

Our degree provides our students with the knowledge, skills, and abilities to assist them in obtaining a job in Emergency Services, or if already employed, to give them the knowledge, skills, and abilities to advance in their careers.

Total Program Credits: 63

Graduation Requirements:

1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Emergency Services - Fire Officer Emphasis, A.A.S. Careers

1. Students will demonstrate knowledge, skills and procedures to perform satisfactorily in their areas of study.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1015</td>
<td>Intermediate Algebra with Integrated Review</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
</tr>
<tr>
<td>Any approved Humanities, Fine Arts, or Foreign Language Distribution Course (COMM 1020 and COMM 1025 Recommended)</td>
<td>3</td>
</tr>
<tr>
<td>Any approved Behavioral Science, Social, or Political Science Distribution Course (PSY 1010 or SOC 1010 Recommended)</td>
<td>3</td>
</tr>
<tr>
<td>Any approved Biology or Physical Science Distribution Course</td>
<td>3</td>
</tr>
<tr>
<td>Any approved Physical Education, Health, Safety or Environment Course (EXSC 1097 recommended)</td>
<td>1</td>
</tr>
</tbody>
</table>

Discipline Core Requirements: 16 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESFF 1000</td>
<td>Introduction to Emergency Services</td>
</tr>
<tr>
<td>ESFF 2100</td>
<td>Servant-Leadership for the Emergency Services</td>
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<tr>
<td></td>
<td>(3)</td>
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</tbody>
</table>

Complete one of the following: 9

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESEC 1140</td>
<td>Emergency Medical Technician Basic</td>
</tr>
<tr>
<td>ESEC 114A</td>
<td>Emergency Medical Technician-Part I</td>
</tr>
<tr>
<td>ESEC 114B</td>
<td>and Emergency Medical Technician-Part II</td>
</tr>
<tr>
<td>ESEC 114C</td>
<td>and Emergency Medical Technician-Part III</td>
</tr>
</tbody>
</table>

Emphasis Requirements: 15 Credits

Choose 15 credits from the following: 15

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ESFO 1100</td>
<td>Fire Behavior and Combustion</td>
</tr>
<tr>
<td>ESFO 1110</td>
<td>Fire Prevention</td>
</tr>
<tr>
<td>ESFF 1120</td>
<td>Principles of Fire and Emergency Services Safety and Survival</td>
</tr>
<tr>
<td>ESFO 1350</td>
<td>Fire Protection Hydraulics and Water Supply</td>
</tr>
<tr>
<td>ESFO 2030</td>
<td>Fire Inspector I</td>
</tr>
<tr>
<td>ESFO 2050</td>
<td>Fire Protection and Detection Systems</td>
</tr>
<tr>
<td>ESFO 2080</td>
<td>Building Construction for the Fire Services</td>
</tr>
<tr>
<td>ESFO 2100</td>
<td>Fire Officer I Supervision and Leadership</td>
</tr>
<tr>
<td>ESFO 2310</td>
<td>Fire Investigator I</td>
</tr>
</tbody>
</table>

Emphasis Elective Requirements: 16 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Emergency Services or related advisor approved courses</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 1010</td>
<td>Introduction to Academic Writing CC</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
</tr>
<tr>
<td>ESFO 1350</td>
<td>Fire Protection Hydraulics and Water Supply</td>
</tr>
<tr>
<td></td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 1010</td>
<td>Intermediate Algebra</td>
</tr>
<tr>
<td></td>
<td>(4)</td>
</tr>
</tbody>
</table>
Emergency Services

2. Students will demonstrate knowledge, skills and procedures to perform satisfactorily in their areas of study.

Related Careers

• Firefighters
• Fire Inspectors and Investigators
• Forest Fire Inspectors and Prevention Specialists
• Forest Fire Inspectors and Prevention Specialists

Emergency Services - Firefighter/Emergency Care Emphasis, A.A.S.

Requirements

Our degree provides our students with the knowledge, skills, and abilities to assist them in obtaining a job in Emergency Services, or if already employed, to give them the knowledge, skills, and abilities to advance in their careers.

Total Program Credits: 63

General Education Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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</tr>
<tr>
<td>or</td>
<td>ENGH 1005 Literacies and Composition Across Contexts CC (5.0)</td>
<td>3</td>
</tr>
<tr>
<td>ESFO 1350</td>
<td>Fire Protection Hydraulics and Water Supply</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MAT 1010 Intermediate Algebra (4.0)</td>
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<tr>
<td>or</td>
<td>MAT 1000 Integrated Beginning and Intermediate Algebra (5.0)</td>
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</table>

Any approved Humanities, Fine Arts, or Foreign Language Distribution Course (COMM 1020 and COMM 1025 Recommended) | 3 |
Any approved Behavioral Science, Social, or Political Science Distribution Course (PSY 1010 or SOC 1010 Recommended) | 3 |
Any approved Biology or Physical Science Distribution Course | 3 |
Any approved Physical Education, Health, Safety or Environment Course (EXSC1097 recommended) | 1 |

Discipline Core Requirements: 16 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ESFF 1000</td>
<td>Introduction to Emergency Services</td>
<td>4</td>
</tr>
<tr>
<td>ESFF 2100</td>
<td>Servant-Leadership for the Emergency Services</td>
<td>3</td>
</tr>
<tr>
<td>ESEC 1140</td>
<td>Emergency Medical Technician--Basic (9.0)</td>
<td>9</td>
</tr>
<tr>
<td>or</td>
<td>ESEC 114A Emergency Medical Technician--Part I (3.0)</td>
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<tr>
<td>and</td>
<td>ESEC 114B Emergency Medical Technician--Part II (4.0)</td>
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<tr>
<td>and</td>
<td>ESEC 114C Emergency Medical Technician--Part III (2.0)</td>
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Emphasis Requirements: 31 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>Any ESEC, ESMG, ES, ESFO, ESFF, ESAF, CJ, NSS, FSCI, MILS, courses</td>
<td>31</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU
4. Completion of GE and specified departmental requirements.

Emergency Services - Firefighter/Emergency Care Emphasis, A.A.S.

Careers

1. Students will demonstrate knowledge, skills and procedures to perform satisfactorily in their area of study.

Related Careers

• Firefighters
• Fire Inspectors and Investigators
• Forest Fire Inspectors and Prevention Specialists
• Forest Fire Inspectors and Prevention Specialists

Emergency Services, A.S.

Requirements

Our degree provides our students with the knowledge, skills, and abilities to assist them in obtaining a job in Emergency Services, or if already employed, to give them the knowledge, skills, and abilities to advance in their careers.

Total Program Credits: 60

General Education Requirements: 35 Credits

Complete the following:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
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<tr>
<td>or</td>
<td>ENGH 1005 Literacies and Composition Across Contexts CC</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors)</td>
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<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL</td>
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<td>STAT 1040</td>
<td>Introduction to Statistics QL (3) (recommended for Social Science majors)</td>
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<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
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<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4) (recommended for Business, Education, Science, and Health Professions majors)</td>
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<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
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<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (3) (recommended for Business majors)</td>
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Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>and</td>
<td>HIST 2710 US History since 1877 AS (6)</td>
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<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
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</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS 3</td>
<td></td>
</tr>
</tbody>
</table>

Complete the following:
PHIL 2050 Ethics and Values IH 3
HLTH 1100 Personal Health and Wellness TE (2)
or EXSC 1097 Fitness for Life TE 2

Distribution Courses:
- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution 3
- Fine Arts Distribution 3
- Social/Behavioral Science 3

Discipline Core Requirements: 25 Credits
- ESFF 1000 Introduction to Emergency Services or sufficient emergency services work experience 4

Complete one of the following:
- ESFF 2100 Servant-Leadership for the Emergency Services 3
- Any Emergency Services advisor approved courses 18

Graduation Requirements:
1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Emergency Services, A.S.

Careers
1. Students will demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in emergency administration.
2. Students will pursue a bachelor’s degree after completion of associate’s degree.

Related Careers
- Firefighters
- Fire Inspectors and Investigators
- Forest Fire Inspectors and Prevention Specialists
- Forest Fire Inspectors and Prevention Specialists

Wildland Fire Management, A.A.S.

Requirements
Our degree provides our students with the knowledge, skills, and abilities to assist them in obtaining a job in Wildland Firefighting, or if already employed, to give them the knowledge, skills, and abilities to advance in their careers.

Total Program Credits: 63

General Education Requirements: 16 Credits
- ENGL 1010 Introduction to Academic Writing CC 3
or ENGH 1005 Literacies and Composition Across Contexts CC
- ESFO 1350 Fire Protection Hydraulics and Water Supply (3) 3
or MAT 1010 Intermediate Algebra (4)

or MAT 1015 Intermediate Algebra with Integrated Review (5)

- Any approved Humanities, Fine Arts, or Foreign Language Distribution Course 3
- Any approved Behavioral Science, Social, or Political Science Distribution Course 3
- Any approved Biology or Physical Science Distribution Course 3
- Any approved Physical Education, Health, Safety or Environment Course 1

Discipline Core Requirements: 6 Credits
- ESWF 1310 S131 Wildland Firefighter Type I 0.5
- ESWF 1330 Look Up Look Down Look Around 0.5
- ESWF 1400 Wildland Firefighting Fundamentals 4
- ESWF 2100 Basic Incident Command System for Initial Response 1

Elective Requirements: 41 Credits
Choose 12 credits from the following course list.
- ESWF 1410 Wildland Firefighter Internship I (5)
- ESWF 1420 Wildland Firefighter Internship II (5)
- ESWF 2000 S200 Initial Attack Incident Commander Type IV (1)
- ESWF 2110 S211 Portable Pumps and Water Use (1.5)
- ESWF 2150 S215 Fire Operations in the Wildland Urban Interface (2)
- ESWF 2212 S212 Chain Saw Use in Wildland Fire Operations (2)
- ESWF 2231 S231 Wildland Fire Engine Boss (1)
- ESWF 2236 S236 Heavy Equipment Boss (2)
- ESWF 2301 S230 Crew Boss Single Resource (2)
- ESWF 2244 S244 Field Observer (2)
- ESWF 2261 S261 Applied Interagency Incident Business Management (1)
- ESWF 2340 Firing Operations (2)
- ESWF 2430 Wildland Firefighter Internship III (5)
- ESWF 2600 S260 Interagency Incident Business Management (1)
- ESWF 2700 S270 Basic Air Operations (1)
- ESWF 2800 L280 Followership to Leadership (1)
- ESWF 2900 S290 Intermediate Wildland Fire Behavior (2)

Choose Any ESWF, ESMG, ESEC, or ESFF courses 29

Graduation Requirements:
1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above.
3. Completion of all core and elective courses with a C- grade or higher.
4. Residency hours—minimum of 20 credit hours earned through course attendance at UVU.
5. Completion of GE and specified departmental requirements.
Wildland Fire Management, A.A.S.

Careers

1. Recognize measures that minimize fire-related threats to life and property.
2. Recognize the differences between the Single Resource Boss and Incident Commander.
3. Recognize the need to apply the Incident Command System (ICS) in various situations.
4. Discernment of proper communication with crews in pre-incident conditions and needs, current fire situations, and post incident de briefs.
5. Understanding of the tasks of an Ignition Specialist Type II and Single Resource Boss.
6. Awareness of the knowledge and skills to perform the tasks of the positions in the Incident Command System (ICS).

Related Careers

- Firefighters
- Fire Inspectors and Investigators
- Forest Fire Inspectors and Prevention Specialists
- Forest Fire Inspectors and Prevention Specialists

Firefighter Recruit Candidate, Certificate of Completion

Requirements

Our degree provides our students with the knowledge, skills, and abilities to assist them in obtaining a job in Emergency Services, or if already employed, to give them the knowledge, skills, and abilities to advance in their careers.

Total Program Credits: 32

Matriculation Requirements:

1. Must be admitted to UVU
2. Complete pre-reqs of ESFF 1000 and ESFF 1120 with a grade of C- or higher
3. Be NREMT certified or complete an EMT course through UVU or another recognized agency/institution
4. Demonstrate competency in English and Math (by one of the following: ACT, SAT, High School Transcript, College Level courses, degrees, and/or RCA entrance exam)
5. Be at least 18 years of age before class starts
6. Have any valid form of Government Issue Photo Identification (Driver’s license, State ID or Passport)
7. Complete online application found at www.uvu.edu/es/rca

Discipline Core Requirements: 32 Credits

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESFF 1120</td>
<td>Principles of Fire and Emergency Services Safety and Survival</td>
<td>3</td>
</tr>
<tr>
<td>ESFF 250A</td>
<td>Firefighter Recruit Candidate Academy I</td>
<td>8</td>
</tr>
<tr>
<td>ESFF 250B</td>
<td>Firefighter Recruit Candidate Academy II</td>
<td>8</td>
</tr>
<tr>
<td>ESEC 1140</td>
<td>Emergency Medical Technician Basic</td>
<td>9</td>
</tr>
<tr>
<td>ESFF 1000</td>
<td>Introduction to Emergency Services</td>
<td>4</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Overall grade point average of 2.0 (C) or above, with completion of each Emergency Services class with a C- or higher.
2. Completion of a minimum of 32 credits.
3. Residency hours – Minimum of 10 credits required through course attendance at UVU.

Note: CERTIFICATION: Upon completion of courses for the Basic Recruit Certificate, students are eligible to apply for certification at the Firefighter I, Firefighter II, Hazardous Materials First Responder-Awareness and Hazardous Materials First Responder-Operations levels through the Utah Fire Science Certification System. Students are also eligible for certification at the Emergency Medical Technician-Basic level through the Utah Bureau of Emergency Medical Services.

Related Careers

- Firefighters
- Fire Inspectors and Investigators
- Forest Fire Inspectors and Prevention Specialists
- Forest Fire Inspectors and Prevention Specialists

Paramedic, Certificate of Completion

Requirements

Our degree provides our students with the knowledge, skills, and abilities to assist them in obtaining a job in Emergency Services, or if already employed, to give them the knowledge, skills and abilities to advance in their careers.

Total Program Credits: 31

Matriculation Requirements:

1. Complete Anatomy and Physiology (transfer credit accepted) with a grade of C or higher: ZOOL 1090 (requires BIOL 1010 as a pre-reg) or ZOOL 2320 and 2420 with labs (requires BIOL 1610 and CHEM 1110 as pre-reg)
2. Meet the English requirement: Completion of ENGL 1010 and CHEM 1110 as pre-reg.
3. Meet the English requirement: Completion of ENGL 1010 or ENGL 1005 with a grade of C or higher. (Completion of ENGL 2010 highly recommended).
4. Meet the Math requirement: Completion of MAT 1000 or higher with a grade of C or higher. (Completion of QL Requirement highly recommended).
5. Possess a current Utah EMT certification (Must remain valid throughout program and until you receive your paramedic license).
7. Be at least 18 years old and have a valid driver’s license.
8. Have current vaccinations as required by Utah Bureau of EMS. (Additional vaccinations may be required for clinical site internships)
9. Have current TB test results as required by Utah Bureau of EMS.
10. Obtain a current physical examination supporting entrance into the Paramedic Program.
11. Complete UVU paramedic application process, including written testing, oral interview, passing of background and drug screening, and be accepted to the program.

Discipline Core Requirements: 31 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESEC 3210</td>
<td>Paramedic I-Operations</td>
<td>3</td>
</tr>
<tr>
<td>ESEC 3220</td>
<td>Paramedic II-Cardiac and Respiratory Patient Care</td>
<td>3</td>
</tr>
<tr>
<td>ESEC 3225</td>
<td>Paramedic II Lab-Cardiac and Respiratory Emergencies</td>
<td>1</td>
</tr>
<tr>
<td>ESEC 3230</td>
<td>Paramedic III-Trauma Patient Care</td>
<td>3</td>
</tr>
<tr>
<td>ESEC 3235</td>
<td>Paramedic III Lab-Trauma Emergencies</td>
<td>1</td>
</tr>
<tr>
<td>ESEC 3240</td>
<td>Paramedic IV-Medical and Geriatric Patient Care</td>
<td>3</td>
</tr>
<tr>
<td>ESEC 3245</td>
<td>Paramedic IV Lab-Medical Emergencies</td>
<td>1</td>
</tr>
<tr>
<td>ESEC 3250</td>
<td>Paramedic V-Obstetric and Pediatric Patient Care</td>
<td>3</td>
</tr>
<tr>
<td>ESEC 3255</td>
<td>Paramedic V Lab-Obstetric and Pediatric Emergencies</td>
<td>1</td>
</tr>
<tr>
<td>ESEC 4210</td>
<td>Paramedic VI-Research</td>
<td>2</td>
</tr>
<tr>
<td>ESEC 4220</td>
<td>Paramedic VII-Clinical Internship Hospital and Field Phase I and II</td>
<td>4</td>
</tr>
<tr>
<td>ESEC 4230</td>
<td>Paramedic VIII-Practical Preparation and Testing</td>
<td>3</td>
</tr>
<tr>
<td>ESEC 4240</td>
<td>Paramedic Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Overall grade point average of 2.0 or above. (Departments may require a higher GPA)
2. Program GPA of 2.7 or higher, with all program required course grades earned as a C or higher.
3. Completion of a minimum of 31 credits.
4. Residency hours -- Minimum of 10 credits required through course attendance at UVU.
5. Upon completion of the program requirements and recommendations from the Medical Director, Program Director and Utah Bureau of Emergency Services Course Coordinator, students are eligible to apply for Paramedic Licensure through the Utah Bureau of Emergency Medical Services after completing certification testing requirements through the National Registry of EMTs.

Total Program Credits: 18

Matriculation Requirements:
1. Admitted to a bachelor degree program at UVU.

Core Requirements: 6 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESMG 310G</td>
<td>Introduction to Homeland Security GI</td>
<td>3</td>
</tr>
<tr>
<td>ESMG 3710</td>
<td>Comparative Approaches to Homeland Security</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose four (4) courses from the following electives: (at least 3 credits must be upper-division) 12 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 1010</td>
<td>Introduction to Criminal Justice SS</td>
<td></td>
</tr>
<tr>
<td>CJ 2110</td>
<td>Security Management and Loss Prevention</td>
<td></td>
</tr>
<tr>
<td>CJ 3340</td>
<td>Terrorism and the Criminal Justice System</td>
<td></td>
</tr>
<tr>
<td>CJ 3400</td>
<td>Drugs and Crime</td>
<td></td>
</tr>
<tr>
<td>ESMG 3400</td>
<td>Critical Infrastructure Protection</td>
<td></td>
</tr>
<tr>
<td>ESMG 4150</td>
<td>Humanitarian Services and Disaster Relief</td>
<td></td>
</tr>
<tr>
<td>EMSG 4200</td>
<td>Public Information and Disasters</td>
<td></td>
</tr>
<tr>
<td>ESMG 425G</td>
<td>Humanitarian Management and Operations GI</td>
<td></td>
</tr>
<tr>
<td>ESMG 4550</td>
<td>Emergency Preparedness and Disaster Response</td>
<td></td>
</tr>
</tbody>
</table>

Homeland Security, Minor

Requirements
The Minor in Homeland Security is an interdisciplinary learning opportunity for fostering the knowledge, skills, and abilities associated with public and private positions relating to homeland security. The program is structured for students across different academic disciplines desiring a richer understanding, as well as an academic credential specific to homeland security. The purpose of the minor is to broaden the learner’s understanding of homeland security so as to complement their chosen field of study such as criminal justice, emergency management, emergency services, and national security studies or take a combination of classes in any or all of the four areas. Those choosing to pursue this minor will grow in their critical thinking and decision-making skill set. In addition, the program hones the learner’s ability to communicate through the written word, function and produce deliverables within a virtual/remote environment, discover pertinent usable intelligence within large amounts of data, and gist information for building succinct briefings.

Total Program Credits: 18
1. Students will demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in homeland security. (Applies to ELO #1 Discipline-appropriate experiences and ELO #4 Professional competence.)

2. Students will use critical and creative thinking, skeptical inquiry, and problem solving in making ethical and good decisions in the fields of homeland security. (Applies to ELO #2 Intellectual and practical skills and ELO #3 Ethical reasoning and understanding.)

3. Students will recognize, understand, and respect the complexity of socio-cultural and international diversity and apply this knowledge to homeland security. (Applies to ELO #5 Stewardship of local, national and global communities and ELO #6 Knowledge of human cultures and the physical and natural.)

Related Careers
- Emergency Management Directors
- Managers, All Other

Emergency Services Administration - Emergency Care Emphasis, B.S.

Requirements
A degree in emergency services prepares practicing and future emergency service professionals through a program that balances technical skills, critical and ethical thinking, leadership, and effective communication. The department's programs address multiple emergency service educational needs, from professional certifications to degrees.

Total Program Credits: 120

General Education Requirements: 35 Credits

<table>
<thead>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL</td>
<td></td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL</td>
<td></td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL</td>
<td></td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL</td>
<td></td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
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</table>

Elective Requirements: 36 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESEC, ESMG, ES, ESFO, ESFF, ESAF, CJ, NSS, FSCI, MILS courses</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Any courses 1000 or higher</td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>

Emphasis Requirements: 31 Credits

Choose one of the following two options for 31 credits: 31

Must be accepted into Paramedic Certificate Program to take the following courses: 1

<table>
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<tr>
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<tbody>
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<td>Credits</td>
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</tr>
<tr>
<td>ESEC 3245</td>
<td>Paramedic IV Lab-Medical Emergencies (1)</td>
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<td>ESEC 4240</td>
<td>Paramedic Capstone (3)</td>
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</tr>
</tbody>
</table>

Paramedic transfer credit and certification must be accepted for this option:

- ESMG 481R Emergency Services Internship (1-8) 2
- ESMG 491R Topics in Cardiology and Medical Trends (1-3) 3
- ESMG 492R Topics in Trauma and Pharmacology (1-3) 4
- ESMG 493R Topics in Medical Litigation (1-4) 5

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above, with completion of each Emergency Services class with a "C-" or higher.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

**Footnotes:**

1. Consult current Paramedic Program Standards & Guidelines for GPA requirements to be recommended for National Registry Paramedic certification testing.
2. Repeatable for a maximum of 15 credits.
3. Repeatable for a maximum of 6 credits.
4. Repeatable for a maximum of 6 credits.
5. Repeatable for a maximum of 4 credits.

### Emergency Services Administration - Emergency Leadership Emphasis, B.S.

**Careers**

1. Students will demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in emergency administration.
2. Students use critical and creative thinking, skeptical inquiry, and problem solving in making ethical and good decisions.
3. Students will be able to communicate effectively orally and in writing.
4. Students will recognize, understand, and respect the complexity of socio-cultural and international diversity.

**Related Careers**

- Firefighters
- Fire Inspectors and Investigators
- Forest Fire Inspectors and Prevention Specialists
- Forest Fire Inspectors and Prevention Specialists

**Emergency Services Administration - Emergency Leadership Emphasis, B.S. Requirements**

A degree in emergency services prepares practicing and future emergency service professionals through a program that balances technical skills, critical and ethical thinking, leadership, and effective communication. The department's programs address multiple emergency service educational needs, from professional certifications to degrees.

**Total Program Credits: 120**

**General Education Requirements:**

<table>
<thead>
<tr>
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<tbody>
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<td>Quantitative Reasoning QL (3)</td>
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<td></td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (3)</td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
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</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
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<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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<tr>
<td>and</td>
<td>HIST 2710 US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
<td></td>
</tr>
<tr>
<td>Complete the following:</td>
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<td>3</td>
</tr>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
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</tr>
<tr>
<td>or</td>
<td>EXSC 1097 Fitness for Life TE (2)</td>
<td></td>
</tr>
</tbody>
</table>

**Distribution Courses:**

- Biology
- Physical Science
- Additional Biology or Physical Science
- Humanities
- Fine Arts
- Social/Behavioral Science (ES 1150 Community Emergency Preparedness recommended) 3

**Discipline Core Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ESFF 2100</td>
<td>Servant-Leadership for the Emergency Services</td>
<td></td>
</tr>
<tr>
<td>ESMG 310G</td>
<td>Introduction to Homeland Security GI</td>
<td></td>
</tr>
</tbody>
</table>
Emergency Services Administration - Emergency Management and Disaster Assistance Emphasis, B.S.

Requirements

The Emergency Management and Disaster Assistance emphasis is designed to meet the needs of students aspiring for a career in emergency management and/or disaster assistance at the local, regional, state, or national level.

Total Program Credits: 120

Graduation Requirements:

1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above, with completion of each Emergency Services class with a "C-" or higher.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

Footnote:
1-May be repeated for a maximum of 6 credits

Emergency Services Administration - Emergency Leadership Emphasis, B.S.

Careers

1. Students will demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in emergency administration.
2. Students use critical and creative thinking, skeptical inquiry, and problem solving in making ethical and good decisions.
3. Students will be able to communicate effectively.
4. Students will recognize, understand, and respect the complexity of socio-cultural and international diversity.

Related Careers

• Firefighters
• Fire Inspectors and Investigators
• Forest Fire Inspectors and Prevention Specialists
• Forest Fire Inspectors and Prevention Specialists

Course Catalog 2023-2024
### Discipline Core Requirements:
- **ESFF 2100** Servant-Leadership for the Emergency Services (3)
- **ESMG 310G** Introduction to Homeland Security GI (3)
- **ESMG 3150** Principles of Management for the Emergency Services WE (3)
- **ESMG 3600** Psychology of Emergency Services (3)
- **ESMG 4600** Public Administration for the Emergency Services (3)
- **ESMG 4650** Emergency Services Capstone WE (3)

### Elective Requirements:
Any ESEC, ESMG, ES, ESFO, ESFF, ESAF, CJ, NSS, FSCI, MILS, courses (12 credits)
Any courses 1000 or higher (24 credits)

### Emphasis Requirements:
Complete 25 credits from the following:
- **ESMG 3300** Emergency and Disaster Planning (3)
- **ESMG 3400** Critical Infrastructure Protection (3)
- **ESMG 3710** Comparative Approaches to Homeland Security (3)
- **ESMG 4150** Humanitarian Services and Disaster Relief (3)
- **ESMG 4200** Public Information and Disasters (3)
- **ESMG 425G** Humanitarian Management and Operations GI (3)
- **ESMG 4300** Disaster Recovery and Hazard Mitigation (3)
- **ESMG 445G** Human Factors in Emergency Management GI (3)
- **ESMG 4550** Emergency Preparedness and Disaster Response (3)
- **ESMG 481R** Emergency Services Internship (1-6)

### Graduation Requirements:
1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above, with completion of each Emergency Services class with a "C-" or higher.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

### Related Careers
- Firefighters
- Fire Inspectors and Investigators
- Forest Fire Inspectors and Prevention Specialists
- Forest Fire Inspectors and Prevention Specialists

### Footnote:
1 May be repeated for a maximum of 6 credits

### Emergency Services Administration - Emergency Management and Disaster Assistance Emphasis, B.S. Careers
1. Students will demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in emergency administration.
2. Students use critical and creative thinking, skeptical inquiry, and problem solving in making ethical and good decisions.
Engineering

Engineering

The Engineering department is in the Scott M. Smith College of Engineering. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Engineering department, visit their website.

Engineering department

DEPARTMENT CHAIR
SHERKAT MASOUM, Mohammad Associate Professor

FACULTY
ABDULLAH, Alaa Visiting Professor
AMIN, Masood Associate Professor
BALLARD, Matthew Assistant Professor
BORDELON, Amanda C. Associate Professor
COX, James Associate Professor
JENSEN, Matthew J. Assistant Professor
MANAHILOH, Kalehiwot Assistant Professor
MINAIE, Afsaneh Professor
NARDIN, Mark Assistant Professor
ROHANI, Ehsan Assistant Professor
SEIBI, Abdennour Professor
SHAABAN, Khaled Associate Professor
SHEIKH, Waseem Ahmad Associate Professor
SHEKARAMIZ, Mohammad Assistant Professor
SHERKAT MASOUM, Mohammad Associate Professor
SHWANI, Mohamed Lecturer
STONE, Brett Lecturer
TOLMAN, Sean Associate Professor
WILLARDSON, Bennington Assistant Professor

Course Descriptions

Civil Engineering.......................................................... 587
Electrical Comp Engineering.......................................... 640
Engineering.................................................................... 682
Mechanical Engineering.................................................. 767

Degrees & Programs

Associate in Pre-Engineering - Biological and Chemical Engineering Emphasis, A.P.E.

Requirements

The pre-engineering program at UVU has been created for students who plan to complete the first two to three years of their engineering education at the ABET accredited UVU and then transfer to a baccalaureate university to complete their engineering degree. With adequate planning, pre-engineering coursework completed at UVU will be sufficient for students to remain at UVU or to transfer to all of the Utah universities with baccalaureate engineering degrees. All students who declare pre-engineering as their major are automatically accepted into pre-engineering status. After completion of the pre-engineering program at UVU, the student applies for professional status at UVU or at an institution of the student’s choice.

Total Program Credits: 69

General Education Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
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</tbody>
</table>

Complete the following Natural and Physical Science courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1210</td>
<td>Principles of Chemistry I PP</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1215</td>
<td>Principles of Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2210</td>
<td>Physics for Scientists and Engineers I PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2215</td>
<td>Physics for Scientists and Engineers I Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

Complete any combination of the following with no more than 1 course each from Humanities, Fine Arts, and Social/Behavioral Science:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities</td>
<td>(from list)</td>
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<tr>
<td>Fine Arts</td>
<td>(from list)</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>(from list)</td>
<td></td>
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</table>

Complete any American Institutions course:

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td>3</td>
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<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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Discipline Core Requirements: 18 Credits

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<th>Credits</th>
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<tbody>
<tr>
<td>MATH 1210</td>
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<tr>
<td>MATH 1220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 1030</td>
<td>Engineering Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CS 1400</td>
<td>Fundamentals of Programming (3)</td>
<td></td>
</tr>
<tr>
<td>PHYS 2220</td>
<td>Physics for Scientists and Engineers II PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2225</td>
<td>Physics for Scientists and Engineers II Lab</td>
<td>1</td>
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</tbody>
</table>

Emphasis Requirements: 5 Credits

<table>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1220</td>
<td>Principles of Chemistry II PP</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1225</td>
<td>Principles of Chemistry II Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>

Emphasis Elective Requirements: 20 Credits

Students should carefully select electives from the following list, based on the engineering discipline (Biological or Chemical) they are interested in and the college or university they want to attend to finish their BS degree. See your advisor.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1610</td>
<td>College Biology I BB (4)</td>
<td></td>
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<tr>
<td>BIOL 1615</td>
<td>College Biology I Laboratory (1)</td>
<td></td>
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<tr>
<td>BIOL 1620</td>
<td>College Biology II (3)</td>
<td></td>
</tr>
<tr>
<td>BIOL 1625</td>
<td>College Biology II Laboratory (1)</td>
<td></td>
</tr>
<tr>
<td>BIOL 3400</td>
<td>Cell Biology (3)</td>
<td></td>
</tr>
<tr>
<td>CHEM 2310</td>
<td>Organic Chemistry I (4)</td>
<td></td>
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</tbody>
</table>
CHEM 2315 Organic Chemistry I Laboratory (1)
CHEM 2320 Organic Chemistry II (4)
CHEM 2325 Organic Chemistry II Laboratory (1)
CS 1400 Fundamentals of Programming (3)
ECE 1000 Introduction to Electrical and Computer Engineering (3)
ENGR 1000 Introduction to Engineering WE (3)
ENGR 1020 Survey of Engineering (1)
ENGR 2160 Introduction to Materials Science and Engineering (3)
ENGR 2300 Engineering Thermodynamics (3)
ENGR 2450 Computational Methods for Engineering Analysis (3)
MATH 2210 Calculus III (4)
MATH 2250 Differential Equations and Linear Algebra (4)
or MATH 2270 Linear Algebra (3)
and MATH 2280 Ordinary Differential Equations (3)

**Graduation Requirements:**
1. Completion of a minimum of 69 semester credits.
2. Overall grade point average of 2.0 (C) or above. 2.5 or above in Math, Science, and Engineering
3. Residency hours – minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

**Associate in Pre-Engineering - Biological and Chemical Engineering Emphasis, A.P.E. Careers**
1. Ability to apply knowledge of mathematics, science, and engineering

**Related Careers**
- NO MATCH

**Associate in Pre-Engineering - Civil and Mechanical Engineering Emphasis, A.P.E. Requirements**
The pre-engineering program at UVU has been created for students who plan to complete the first two to three years of their engineering education at the ABET accredited UVU, then either continue at UVU or transfer to a baccalaureate university to complete their engineering degree. With adequate planning, pre-engineering coursework completed at UVU will be sufficient for students to remain at UVU or to transfer to all of the Utah universities with baccalaureate engineering degrees. All students who declare pre-engineering as their major are automatically accepted into pre-engineering status. After completion of the pre-engineering program at UVU, the student applies for professional status at UVU or at an institution of the student’s choice.

**Total Program Credits: 69**

**General Education Requirements:**
28 Credits

- ENGL 1010 Introduction to Academic Writing CC 3 or ENGH 1005 Literacies and Composition Across Contexts CC (5)
- MATH 1210 Calculus I QL 4
- MATH 1220 Calculus II 4
- ENGR 1030 Engineering Programming 3
- or CS 1400 Fundamentals of Programming (3)
- PHYS 2220 Physics for Scientists and Engineers II 4
- PHYS 2225 Physics for Scientists and Engineers II Lab 1

**Emphasis Requirements:**
9 Credits

- ENGR 2010 Engineering Statics 3
- ENGR 2030 Engineering Dynamics 3
- ENGR 2140 Mechanics of Materials 3
- or ENGR 2160 Introduction to Materials Science and Engineering (3)
- or ENGR 2450 Computational Methods for Engineering Analysis (3)

**Emphasis Elective Requirements:**
16 Credits

Students should carefully select electives from the following list, based on the engineering discipline (Civil or Mechanical) they are interested in and the college or university they want to attend to finish their BS degree. See your advisor.

- ECE 1000 Introduction to Electrical and Computer Engineering (3)
- ECE 2210 Fundamentals of Electric Circuit Analysis (3)
- EGDT 1040 Fundamentals of Technical Engineering Drawing (3)
Engineering

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>EGDT 1071</td>
<td>3 Dimensional Modeling—Solidworks</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1400</td>
<td>Surveying Applications and Field Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 1000</td>
<td>Introduction to Engineering WE</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 1020</td>
<td>Survey of Engineering</td>
<td>1</td>
</tr>
<tr>
<td>ENGR 2140</td>
<td>Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2160</td>
<td>Introduction to Materials Science and Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2300</td>
<td>Engineering Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2450</td>
<td>Computational Methods for Engineering Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2210</td>
<td>Calculus III</td>
<td>4</td>
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<tr>
<td>MATH 2250</td>
<td>Differential Equations and Linear Algebra</td>
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<tr>
<td>or MATH 2270</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>and MATH 2280</td>
<td>Ordinary Differential Equations (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 69 semester credits.
2. Overall grade point average of 2.0 (C) or above. 2.5 or above in Math, Science, and Engineering.
3. Residency hours – minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

**Associate in Pre-Engineering - Civil and Mechanical Engineering Emphasis, A.P.E.**

**Careers**

1. Ability to apply knowledge of mathematics, science, and engineering.
2. Know the basic knowledge and fundamental principles of engineering.
3. Be able to apply these principles to solving various engineering problems.
4. Value mathematics, science, and their application in engineering design.

**Related Careers**

• NO MATCH

**Associate in Pre-Engineering - Computer and Electrical Engineering Emphasis, A.P.E.**

**Requirements**

The pre-engineering program at UVU has been created for students who plan to complete the first two to three years of their engineering education at the ABET accredited UVU, then either continue at UVU or transfer to a baccalaureate university to complete their engineering degree. With adequate planning, pre-engineering coursework completed at UVU will be sufficient for students to remain at UVU or to transfer to all of the Utah universities with baccalaureate engineering degrees. All students who declare pre-engineering as their major are automatically accepted into pre-engineering status. After completion of the pre-engineering program at UVU, the student applies for professional status at UVU or at an institution of the student’s choice.

**Total Program Credits: 69**

**General Education Requirements:** 28 Credits

- ENGL 1010 Introduction to Academic Writing CC 3
- or ENGL 1005 Literacies and Composition Across Contexts CC 5
- ENGL 2010 Intermediate Academic Writing CC 3

Complete the following Natural and Physical Science courses:

- Biology 3
- CHEM 1210 Principles of Chemistry I PP 4
- CHEM 1215 Principles of Chemistry I Laboratory 1
- PHYS 2210 Physics for Scientists and Engineers I PP 4
- PHYS 2215 Physics for Scientists and Engineers I Lab 1

Complete any combination of the following with no more than 1 course each from Humanities, Fine Arts, and Social/Behavioral Science:

- Humanities (from list) 3
- Fine Arts (from list) 1
- Social/Behavioral Sciences (from list) 1

Complete any American Institutions course: 3

- POLS 1000 American Heritage SS (3)
- HIST 2700 US History to 1877 AS
- and HIST 2710 US History since 1877 AS (6)
- HIST 1700 American Civilization AS (3)
- HIST 1740 US Economic History AS (3)
- POLS 1100 American National Government AS (3)

**Discipline Core Requirements:** 16 Credits

- MATH 1210 Calculus I QL 4
- MATH 1220 Calculus II 4
- ENGR 1030 Engineering Programming 3
- or CS 1400 Fundamentals of Programming (3)
- PHYS 2220 Physics for Scientists and Engineers II PP 4
- PHYS 2225 Physics for Scientists and Engineers II Lab 1

**Emphasis Requirements:** 11 Credits

- ECE 1000 Introduction to Electrical and Computer Engineering 3
- ECE 2250 Circuit Theory 3
- ECE 2255 Circuit Theory Lab 1
- ECE 2700 Digital Design I 3
- ECE 2705 Digital Design I Lab 1

**Emphasis Elective Requirements:** 14 Credits

Students should carefully select electives from the following list (or other advisor approved courses), based on the engineering discipline (Computer or Electrical) they are interested in and the college or university they want to attend to finish their BS degree. See your advisor.

- CS 1410 Object-Oriented Programming (3)
- CS 2300 Discrete Mathematical Structures I (3)
CS 2420  Introduction to Algorithms and Data Structures (3)
CS 2600  Computer Networks I (3)
CS 2810  Computer Organization and Architecture (3)
ENGR 1000  Introduction to Engineering WE (3)
ENGR 2450  Computational Methods for Engineering Analysis (3)
ENGR 1020  Survey of Engineering (1)
MATH 2210  Calculus III (4)
MATH 2250  Differential Equations and Linear Algebra (4)
or MATH 2270  Linear Algebra (3)
and MATH 2280  Ordinary Differential Equations (3)

Graduation Requirements:
1. Completion of a minimum of 69 semester credits.
2. Overall grade point average of 2.0 (C) or above. 2.5 or above in Math, Science, and Engineering.
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Associate in Pre-Engineering - Computer and Electrical Engineering Emphasis, A.P.E.

Careers
1. Ability to apply knowledge of mathematics, science, and engineering.

Related Careers
• NO MATCH

Pre-Engineering, A.S.

Requirements
The pre-engineering program at UVU has been created for students who plan to complete the first two to three years of their engineering education at UVU and then transfer to a baccalaureate university to complete their engineering degree. With adequate planning, pre-engineering coursework completed at UVU will transfer to all of the Utah universities with baccalaureate engineering degrees. All students who declare pre-engineering as their major are automatically accepted into pre-engineering status. After completion of the pre-engineering program at UVU, the student applies for professional status at an institution of the student’s choice.

Total Program Credits: 61

General Education Requirements: 38 Credits

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>
or ENGH 1005 | Literacies and Composition Across Context CC (5) |         |
| ENGL 2010  | Intermediate Academic Writing CC         | 3       |
| MATH 1210  | Calculus I QL                            | 4       |
| Complete one of the following: | | 3 |
| HIST 1700  | American Civilization AS                  | 3       |
| HIST 2700  | US History to 1877 AS                     | 3       |
| and HIST 2710 | US History since 1877 AS                |         |

HIST 1740  US Economic History AS (3)
POLS 1000  American Heritage SS (3)
POLS 1100  American National Government AS (3)

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
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<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
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or EXSC 1097 | Fitness for Life TE                     |         |

Distribution Courses:

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<th>Credits</th>
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<tr>
<td>CHEM 1210</td>
<td>Principles of Chemistry I PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2210</td>
<td>Physics for Scientists and Engineers I PP</td>
<td>4</td>
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</table>

Humanities
Fine Arts
Social/Behavioral Science
Biology

Discipline Core Requirements: 24 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGR 1030</td>
<td>Engineering Programming</td>
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</tr>
</tbody>
</table>
or CS 1400  | Fundamentals of Programming (3)          |         |
MATH 1220  Calculus II                  | 4       |

Complete ONE of the following sets of courses: 16

General Engineering Focus:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHYS 2215</td>
<td>Physics for Scientists and Engineers I Lab</td>
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</tr>
<tr>
<td>CHEM 1215</td>
<td>Principles of Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ENGR 1000</td>
<td>Introduction to Engineering WE</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2160</td>
<td>Introduction to Materials Science and Engineering (3)</td>
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</tr>
<tr>
<td>CS 2810</td>
<td>Computer Organization and Architecture (3)</td>
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</tbody>
</table>
or CS 1410  | Object Oriented Programming (3)           |         |

Also, complete five credits of Pre-Engineering electives

Mechanical/Civil Engineering Focus:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 2220</td>
<td>Physics for Scientists and Engineers II PP</td>
<td>4</td>
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<tr>
<td>ENGR 2010</td>
<td>Engineering Statics (3)</td>
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<tr>
<td>ENGR 2030</td>
<td>Engineering Dynamics (3)</td>
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<tr>
<td>ENGR 2140</td>
<td>Mechanics of Materials (3)</td>
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</table>
or ENGR 2300 | Engineering Thermodynamics (3)           |         |
or ENGR 2450 | Computational Methods for Engineering Analysis (3) |         |

Also, complete three credits of Pre-Engineering electives

Electrical/Computer Engineering Focus:

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHYS 2220</td>
<td>Physics for Scientists and Engineers II PP</td>
<td>4</td>
</tr>
<tr>
<td>ECE 1000</td>
<td>Introduction to Electrical and Computer Engineering (3)</td>
<td></td>
</tr>
<tr>
<td>ECE 2700</td>
<td>Digital Design I (3)</td>
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</table>
# Engineering

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ECE 2705</td>
<td>Digital Design I Lab (1)</td>
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</tbody>
</table>

Also, complete four credits of Pre-Engineering electives

**Chemical/Biological Engineering Focus:**

- **PHYS 2220** Physics for Scientists and Engineers II PP (4)
- **CHEM 1220** Principles of Chemistry II PP (4)
- **CHEM 2310** Organic Chemistry I (4)

Complete five credits of Pre-Engineering electives

**Elective Requirements:**

Students should carefully select electives based on the engineering discipline they are interested in. See your advisor.

**Math and Science Electives:**

- **MATH 1050** College Algebra QL (4)
- **MATH 1060** Trigonometry QL (3)
- **MATH 2210** Calculus III (4)
- **MATH 2250** Differential Equations and Linear Algebra (4)
- **or MATH 2270** Linear Algebra (3)
- **and MATH 2280** Ordinary Differential Equations (3)
- **PHYS 2215** Physics for Scientists and Engineers I Lab (1)
- **PHYS 2225** Physics for Scientists and Engineers II Lab (1)
- **CHEM 1010** Introduction to Chemistry PP (3)
- **CHEM 1215** Principles of Chemistry I Laboratory (1)

**General Engineering Electives:**

- **ENGR 1000** Introduction to Engineering WE (3)
- **ENGR 1020** Survey of Engineering (1)
- **ENGR 1030** Engineering Programming(3)
- **ENGR 2140** Mechanics of Materials (3)
- **ENGR 2160** Introduction to Materials Science and Engineering (3)
- **ENGR 2300** Engineering Thermodynamics (3)
- **ENGR 2450** Computational Methods for Engineering Analysis (3)

**CAD Electives:**

- **EGDT 1040** Fundamentals of Technical Engineering Drawing (3)
- **EGDT 1071** 3 Dimensional Modeling--Solidworks (3)
- **EGDT 1400** Surveying Applications and Field Techniques I (3)
- **EGDT 1200** Mechanical Drafting and Design (3)

**Computer and Electrical Electives:**

- **CS 1400** Fundamentals of Programming (3)
- **CS 1410** Object-Oriented Programming (3)
- **CS 2300** Discrete Mathematical Structures I (3)

- **CS 2420** Introduction to Algorithms and Data Structures (3)
- **CS 2600** Computer Networks I (3)
- **CS 2810** Computer Organization and Architecture (3)
- **ECE 1000** Introduction to Electrical and Computer Engineering (3)
- **ECE 2210** Fundamentals of Electric Circuit Analysis (3)

**Biological and Chemical Electives:**

- **BIOL 1610** College Biology I BB (4)
- **BIOL 1615** College Biology I Laboratory (1)
- **BIOL 1620** College Biology II (3)
- **BIOL 1625** College Biology II Laboratory (1)
- **BIOL 3400** Cell Biology (3)
- **MICR 2060** Microbiology for Health Professions BB (3)
- **MICR 2065** Microbiology for Health Professions Laboratory (1)
- **CHEM 1220** Principles of Chemistry II PP (4)
- **CHEM 1225** Principles of Chemistry II Laboratory (1)
- **CHEM 2315** Organic Chemistry I Laboratory (1)
- **CHEM 2320** Organic Chemistry II (4)
- **CHEM 2325** Organic Chemistry II Laboratory (1)

**Graduation Requirements:**

1. Completion of a minimum of 61 semester credits.
2. Overall grade point average of 2.0 (C) or above. 2.5 or above in Math, Science, and Engineering courses.
3. Residency hours: minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

**Pre-Engineering, A.S. Careers**

1. An ability to apply knowledge of mathematics, science, and engineering.
2. An ability to design and conduct experiments, as well as to analyze and interpret data.
3. An ability to design a system, component, or process to meet desired needs within realistic constraints.
4. An ability to function on multidisciplinary teams.
5. An ability to identify, formulate, and solve engineering problems.
6. An understanding of professional and ethical responsibility.
7. An ability to communicate effectively.
8. A recognition of the need for, and an ability to engage in life-long learning.
9. A knowledge of contemporary issues.
10. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

**Related Careers**

- NO MATCH
Civil Engineering, B.S.

**Requirements**

Civil engineering is the oldest engineering discipline. The Bachelor of Science in Civil Engineering prepares graduates to apply mathematical and scientific principles to the design and supervision of infrastructure components including: buildings, roads, bridges, dams, tunnels, mass transit systems, and airports. Civil engineers are also involved in environmental studies and the design and supervision of municipal water supplies and sewage systems.

**Total Program Credits: 126**

**Matriculation Requirements:**

1. To be admitted to the BSCE program, a student must complete the foundation courses in Mathematics (MATH 1210, 1220, 2210, 2250); Physics and Chemistry (PHYS 2210, 2215, CHEM 1210, with 1215 and PHYS 2220 with 2225 or CHEM 1220 with 1225); English (ENGL 1010 or ENGH 1005, ENGL 2010); Engineering (ENGR 1000, 2010, 2030, 2140, 2160); Computer Aided Drafting (EGDT 1040), and Surveying Applications and Field Techniques I (EGDT 1400) with a minimum grade of C in these courses.

2. Must complete courses with a grade point average of 2.5 or above.

3. A student not meeting all of the admission requirements, may request in writing, a provisional admission status for a semester from the department. The provisional admission status must be approved by the civil engineering program coordinator.

**General Education Requirements:**

38 Credits

- **ENGL 1010** Introduction to Academic Writing CC 3
- or **ENGH 1005** Literacies and Composition Across Contexts CC (5.0)
- **ENGL 2010** Intermediate Academic Writing CC 3
- **MATH 1210** Calculus I QL 4

Complete one of the following:

- **HIST 2700** US History to 1877 AS (3.0)
- **HIST 2710** US History since 1877 AS (3.0)
- **HIST 1700** American Civilization AS (3.0)
- **HIST 1740** US Economic History AS (3.0)
- **POLS 1000** American Heritage SS (3.0)
- **POLS 1100** American National Government AS (3.0)

Complete the following:

- **HLTH 1100** Personal Health and Wellness TE 2
- or **EXSC 1097** Fitness for Life TE (2.0)
- **PHIL 205G** Ethics and Values IH GI 3
- or **PHIL 2050** Ethics and Values IH (3)

**Distribution Courses:**

- Fine Arts 3
- Biology 3
- Humanities (COMM 1020 and recommended) 3
- Social/Behavioral Science (COMM 2110 recommended) 3
- **PHYS 2210** Physics for Scientists and Engineers I PP 4
- **CHEM 1210** Principles of Chemistry I PP 4

**Discipline Core Requirements:**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1215 Principles of Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>EGDT 1040 Fundamentals of Technical Engineering Drawing</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1400 Surveying Applications and Field Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 1000 Introduction to Engineering WE</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2010 Engineering Statics</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2030 Engineering Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2140 Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2160 Introduction to Materials Science and Engineering</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1220 Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2210 Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2250 Differential Equations and Linear Algebra</td>
<td>4</td>
</tr>
<tr>
<td>CIVE 2130 Engineering Economics and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>CIVE 2450 Numerical Methods with Excel and VBA</td>
<td>3</td>
</tr>
<tr>
<td>or ENGR 2450 Computational Methods for Engineering Analysis</td>
<td></td>
</tr>
<tr>
<td>CIVE 3010 Introduction to Transportation Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CIVE 3130 Introduction to Structural Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CIVE 3210 Introduction to Geotechnical Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ME 3310 Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>CIVE 3320 Introduction to Water Resources</td>
<td>3</td>
</tr>
<tr>
<td>CIVE 3335 Hydrology and Hydraulics Lab WE</td>
<td>2</td>
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<tr>
<td>CIVE 4135 Civil Engineering Materials Lab WE</td>
<td>2</td>
</tr>
<tr>
<td>CIVE 4510 Civil Engineering Seminar</td>
<td>1</td>
</tr>
<tr>
<td>CIVE 4810 Civil Engineering Capstone I</td>
<td>3</td>
</tr>
<tr>
<td>CIVE 4820 Civil Engineering Capstone II</td>
<td>3</td>
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<tr>
<td>PHYS 2215 Physics for Scientists and Engineers I Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2220 Physics for Scientists and Engineers II PP</td>
<td>4</td>
</tr>
<tr>
<td>or <strong>CHEM 1220</strong> Principles of Chemistry II PP (4)</td>
<td></td>
</tr>
<tr>
<td>PHYS 2225 Physics for Scientists and Engineers II Lab</td>
<td>1</td>
</tr>
<tr>
<td>or <strong>CHEM 1225</strong> Principles of Chemistry II Laboratory (1)</td>
<td></td>
</tr>
</tbody>
</table>

**Elective Requirements:**

15 Credits

Elective Courses (15 credit hours are required; two courses may be taken from Technical Elective list; at least six credit hours must be at 4000 level)

| Requirement                                                                 |
|----------------------------------------------------------------------------|---------|
| CIVE 3140 Structural Steel Design I (3)                                     |         |
| CIVE 3150 Reinforced Concrete Design I (3)                                 |         |
| CIVE 3610 Environmental Engineering (3)                                    |         |
| CIVE 4010 Traffic Engineering (3)                                          |         |
Engineering

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIVE 4020</td>
<td>Highway Design</td>
<td>3</td>
</tr>
<tr>
<td>CIVE 4210</td>
<td>Foundation Design</td>
<td>3</td>
</tr>
<tr>
<td>CIVE 4220</td>
<td>Ground Improvement Methods</td>
<td>3</td>
</tr>
<tr>
<td>CIVE 4310</td>
<td>Storm Water Management</td>
<td>3</td>
</tr>
<tr>
<td>CIVE 4320</td>
<td>Open Channel Flow</td>
<td>3</td>
</tr>
<tr>
<td>ME 4420</td>
<td>Finite Element Methods</td>
<td>3</td>
</tr>
<tr>
<td>CIVE 4610</td>
<td>Water and Wastewater</td>
<td>3</td>
</tr>
<tr>
<td>CIVE 490R</td>
<td>Advanced Current Topics in Civil Engineering</td>
<td>1-3</td>
</tr>
</tbody>
</table>

Technical Elective Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIVE 481R</td>
<td>Internship</td>
</tr>
<tr>
<td>CMGT 2025</td>
<td>Heavy Civil Plans and Specifications</td>
</tr>
<tr>
<td>CMGT 2060</td>
<td>Construction Job Site Management</td>
</tr>
<tr>
<td>CMGT 2080</td>
<td>Principles of Construction Scheduling</td>
</tr>
<tr>
<td>CMGT 3030</td>
<td>Principles of Construction Estimating</td>
</tr>
<tr>
<td>CMGT 3050</td>
<td>Construction Equipment/Planning and Logistics</td>
</tr>
<tr>
<td>CMGT 3160</td>
<td>Building Information Modeling</td>
</tr>
<tr>
<td>CMGT 4010</td>
<td>Construction Contracts</td>
</tr>
<tr>
<td>CMGT 4020</td>
<td>Construction Project Management</td>
</tr>
<tr>
<td>CMGT 405G</td>
<td>Global Sustainability and the Built Environment</td>
</tr>
<tr>
<td>LEGL 3000</td>
<td>Business Law</td>
</tr>
<tr>
<td>ENVT 3280</td>
<td>Environmental Law</td>
</tr>
<tr>
<td>ENVT 3290</td>
<td>Environmental Reporting WE</td>
</tr>
<tr>
<td>ENVT 3330</td>
<td>Water Resources Management</td>
</tr>
<tr>
<td>ENVT 3850</td>
<td>Environmental Policy WE</td>
</tr>
<tr>
<td>GEO 3000</td>
<td>Environmental Geochemistry</td>
</tr>
</tbody>
</table>

Students may also take upper level computer, electrical, and mechanical engineering classes as technical electives in consultation with their faculty advisors and approval of the department offering the courses.

Graduation Requirements:
1. Completion of a minimum of 125 semester credits, with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.5 or above, with a minimum grade of C in all discipline core and elective requirements.
3. Residency hours - minimum of 30 credit hours through course attendance at UVU. Ten of these hours must be within the last 45 hours earned. At least 12 of the credit hours earned in residence must be in approved CIVE courses.
4. All transfer credits must be approved in writing by UVU and the civil engineering program coordinator.
5. No more than 80 semester hours and no more than 20 hours in CIVE courses of transfer credit.
6. No more than 6 semester hours may be earned through independent study.
7. Successful completion of at least one Global/Intercultural course.

Civil Engineering, B.S.

Careers
1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Related Careers
- Architectural and Engineering Managers
- Chemical Engineers
- Engineering Teachers, Postsecondary

Computer Engineering, B.S.

Requirements
Computer Engineering encompasses the science and technology of design, construction, implementation, testing, and maintenance of integrated software and hardware components of modern computing systems and computer–controlled equipment (cell phones, video games, laptops).

Total Program Credits: 124

Matriculation Requirements:
To be admitted to the BSCE program a student must complete the following courses with a minimum grade of C in these courses and a grade point average of 2.5 or above. A student not meeting all of the admission requirements, may request in writing, a provisional admission status for a semester from the department. The provisional admission status must be approved by the computer engineering program coordinator.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1210</td>
<td>Calculus I QL</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2210</td>
<td>Physics for Scientists and Engineers I PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2215</td>
<td>Physics for Scientists and Engineers I Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2220</td>
<td>Physics for Scientists and Engineers II PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2225</td>
<td>Physics for Scientists and Engineers II Lab</td>
<td>1</td>
</tr>
<tr>
<td>CS 1400</td>
<td>Fundamentals of Programming</td>
<td>3</td>
</tr>
<tr>
<td>ECE 1000</td>
<td>Introduction to Electrical and Computer Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ECE 2700</td>
<td>Digital Design I</td>
<td>3</td>
</tr>
<tr>
<td>ECE 2705</td>
<td>Digital Design I Lab</td>
<td>1</td>
</tr>
<tr>
<td>ECE 2225</td>
<td>Circuit Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECE 2255</td>
<td>Circuit Theory Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

General Education Requirements: 38 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>
American Institutions: Complete one of the following: 3
- HIST 2700 US History to 1877 AS (3)
- and HIST 2710 US History since 1877 AS (3)
- HIST 1700 American Civilization AS (3)
- HIST 1740 US Economic History AS (3)
- POLS 1000 American Heritage SS (3)
- POLS 1100 American National Government AS (3)

Complete the following:
- HLTH 1100 Personal Health and Wellness TE 2
  or EXCS 1097 Fitness for Life TE (2)
  PHIL 205G Ethics and Values IH GI 3

Distribution Courses:
- COMM 1020 Public Speaking HH 3
- COMM 2110 Interpersonal Communication SS 3
- Fine Arts (Choose from list) 3
- Biology (Choose from list) 3
- PHYS 2210 Physics for Scientists and Engineers I PP 4
- CHEM 1210 Principles of Chemistry I PP 4

Discipline Core Requirements: 86 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1210</td>
<td>Calculus I QL</td>
<td>4</td>
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</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CS 1400</td>
<td>Fundamentals of Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 1410</td>
<td>Object-Oriented Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 2300</td>
<td>Discrete Mathematical Structures I</td>
<td>3</td>
</tr>
<tr>
<td>CS 2370</td>
<td>C Plus Plus Programming WE</td>
<td>3</td>
</tr>
<tr>
<td>CS 2420</td>
<td>Introduction to Algorithms and Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CS 3060</td>
<td>Operating Systems Theory</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2215</td>
<td>Physics for Scientists and Engineers I Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2220</td>
<td>Physics for Scientists and Engineers II PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2225</td>
<td>Physics for Scientists and Engineers II Lab</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1215</td>
<td>Principles of Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1220</td>
<td>Calculus II</td>
<td>4</td>
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</tbody>
</table>

Elective Requirements: 3 Credits

Complete 3 credits from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 4780</td>
<td>Wireless and Mobile Communications</td>
<td>3</td>
</tr>
<tr>
<td>ECE 4850</td>
<td>Machine Learning</td>
<td>3</td>
</tr>
<tr>
<td>ECE 481R</td>
<td>Electrical and Computer Engineering Internship (1-3)</td>
<td></td>
</tr>
<tr>
<td>ECE 4260</td>
<td>Smart Power Grids</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 124 semester credits, with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.5 or above, with a minimum grade of C in all discipline core and elective requirements.
3. Residency hours - minimum of 30 credit hours through course attendance at UVU. 10 of these hours must be within the last 45 hours earned. At least 12 of the credit hours earned in residence must be in approved CS + ECE courses.
4. All transfer credit must be approved in writing by UVU.
5. No more than 80 semester hours and no more than 20 hours in CS and ECE courses of transfer credit.
6. No more than 6 semester hours may be earned through independent study.
7. Successful completion of at least one Global/Intercultural course.

Computer Engineering, B.S.

Careers

1. Computer Engineering students will demonstrate proficiency in the areas of programming languages, algorithms, operating systems, computer architecture, digital and analog circuits, and engineering design.
2. Students will demonstrate proficiency in relevant aspects of mathematics as well as the appropriate concepts from physics and electrical circuits and devices.
3. Students will successfully apply these principles and practices to a variety of problems.
4. Students will demonstrate an understanding of differential and integral calculus, advanced engineering mathematics, discrete structures, probability and statistics, physics, and other areas of science pertinent to engineering.
Engineering

5. Students will apply modern engineering tools necessary for computer engineering practice including computer based analysis, design, and simulation tools.
6. Students will have the ability to work with others and on multidisciplinary teams in both classroom and laboratory environments.
7. Students will demonstrate critical and abstract thinking.
8. Students will demonstrate an ability to communicate effectively.
9. Students will obtain familiarity with basic ideas and contemporary issues in the social sciences and the humanities.
10. Students will obtain an understanding of social, professional, and ethical issues related to engineering.
11. The majority of the graduates will be immediately employed in high-technology companies that utilize their computer engineering skills.
12. Strong graduates from the program will be prepared to enter graduate programs.

Related Careers
- Architectural and Engineering Managers
- Computer Hardware Engineers
- Engineering Teachers, Postsecondary

Electrical Engineering, B.S.

Requirements
A Bachelor of Science in Electrical Engineering provides a broad foundation in electrical engineering through combined classroom and laboratory work and prepares students for entering the profession of electrical engineering as well as further study at the graduate level. The core courses will provide students with a strong background in mathematics, physical science, and fundamentals of engineering.

Total Program Credits: 125

Matriculation Requirements:
To be admitted to the BSEE program a student must complete the following courses with a minimum grade of C in these courses and grade point average of 2.5 or above. A student not meeting all of the admission requirements, may request in writing, a provisional admission status for a semester from the department. The provisional admission status must be approved by the electrical engineering program coordinator.
- MATH 1210 Calculus I QL
- MATH 1220 Calculus II
- PHYS 2210 Physics for Scientists and Engineers I PP
- PHYS 2215 Physics for Scientists and Engineers I Lab
- PHYS 2220 Physics for Scientists and Engineers II PP
- PHYS 2225 Physics for Scientists and Engineers II Lab
- CS 1400 Fundamentals of Programming
- ECE 1000 Introduction to Electrical and Computer Engineering
- CHEM 1210 Calculus II

Distribution Courses:
- ENGL 1010 Introduction to Academic Writing CC
- ENGL 2010 Intermediate Academic Writing CC
- MATH 1210 Calculus I QL
- HIST 2700 American Civilization AS (3)
- HIST 1740 US Economic History AS (3)
- POLS 1000 American Heritage SS (3)
- POLS 1100 American National Government AS (3)

Complete the following:
- PHIL 2050 Ethics and Values IH
- HLTH 1100 Personal Health and Wellness TE
- or EXSC 1097 Fitness for Life TE

Discipline Core Requirements:

General Education Requirements: 38 Credits

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1210</td>
<td>Calculus I QL</td>
<td>4</td>
</tr>
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</table>

American Institutions: Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
</tr>
</tbody>
</table>

ECE 1000 Introduction to Electrical and Computer Engineering 3
CS 1400 Fundamentals of Programming 3
ECE 2250 Circuit Theory 3
ECE 2255 Circuit Theory Lab 1
ECE 2700 Digital Design I 3
ECE 2705 Digital Design I Lab 1
ECE 2750 Engineering Analysis 3
ECE 3250 Energy Conversion 3
ECE 3350 Control Systems 3
ECE 3450 Electromagnetics and Transmission Lines 3
ECE 3710 Applied Probability and Statistics for Engineers and Scientists 3
ECE 3730 Embedded Systems I 3
ECE 3740 Digital Design II 3
ECE 3760 Electronic Systems 3
ECE 3765 Electronic Systems Lab 1
ECE 3770 Signals and Systems 3
ECE 3780 Communication Systems and Circuits 3
ECE 3785 Communication Systems and Circuits Lab 1
ECE 4700 Computer Architecture for Engineering Applications 3
ECE 4730 Embedded Systems II 3
ECE 4750 Digital Signal Processing 3
ECE 4755 Digital Signal Processing Lab 1
ECE 4760 VLSI Design 3
ECE 4765 VLSI Design Laboratory 1
ECE 4900 Electrical and Computer Engineering Capstone I WE 3
Graduation Requirements:
1. Completion of a minimum of 125 semester credits, with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.5 or above, with a minimum grade of C in all discipline core and elective requirements.
3. Residency hours - minimum of 30 credit hours through course attendance at UVU. 10 of these hours must be within the last 45 hours earned. At least 12 of the credit hours earned in residence must be in approved CS + ECE courses.
4. All transfer credit must be approved in writing by UVU and the electrical engineering program coordinator.
5. No more than 80 semester hours and no more than 20 hours in electrical engineering program coordinator.
6. No more than 6 semester hours may be earned through independent study.
7. Successful completion of at least one Global/Intercultural course.

Electrical Engineering, B.S.

Electrical and Computer Engineering Capstone II WE

Physics for Scientists and Engineers I Lab

Physics for Scientists and Engineers II PP

Physics for Scientists and Engineers II Lab

Principles of Chemistry I Laboratory

Calculus II

Calculus III

Elective Requirements: 6 Credits

Wireless and Mobile Communications (3)

Power Systems Engineering (3)

Machine Learning (3)

Smart Power Grids (3)

Electrical and Computer Engineering Internship (1-3)

Electrical and Computer Engineering Career

1. Demonstrated their ability to perform electrical engineering analysis to solve technical problems and to communicate technical information effectively in an engineering or a professional team environment.
2. Advanced professionally by taking more responsibilities; or have successfully completed a graduate level degree.
3. Continued their professional development through workshops; or earning professional licensure.
4. Served in their professional organizations and/or local communities.

Related Careers
- Architectural and Engineering Managers
- Aerospace Engineers
- Electrical Engineers
- Electronics Engineers, Except Computer
- Engineering Teachers, Postsecondary

Mechanical Engineering, B.S.

Requirements
Mechanical engineering, which has evolved over the years as new technologies have emerged, is one of the broadest engineering disciplines. The Bachelor of Science in Mechanical Engineering prepares graduates to apply mathematical and scientific principles to the design, development, testing, and manufacturing of machines, robots, tools, biomedical devices, power generating equipment such as steam and gas turbines, wind turbines, solar systems, internal combustion engines, and heating, cooling, and refrigeration equipment.

Total Program Credits: 126

Matriculation Requirements:
1. To be admitted to the BSME program, a student must complete the foundation courses in Mathematics (MATH 1210, 1220, 2210, 2250); Physics (PHYS 2210, 2215, 2220, 2225); Chemistry (CHEM 1210, 1215); English (ENGL 1005 or ENGL 1010, 2010); and Engineering (EGDT 1071, ENGR 1000, 1030, 2010, 2030, 2140, 2160, 2450) with a minimum grade of C.
2. Students need a grade point average of 2.5 or above.
3. Students must have a grade of C in all discipline core and elective requirements.

General Education Requirements: 38 Credits

- ENGL 1010 Introduction to Academic Writing CC (3)
- ENGL 1005 Literacies and Composition Across Contexts CC (5.0)
- ENGL 2010 Intermediate Academic Writing CC (3)
- MATH 1210 Calculus I QL (4)

Complete one of the following:

- HIST 1700 American Civilization AS (3.0)
- HIST 1740 US Economic History AS (3.0)
- HIST 2700 US History to 1877 AS (3.0)
- HIST 2710 US History since 1877 AS (3.0)
- POLS 1000 American Heritage SS (3.0)
- POLS 1100 American National Government AS (3.0)

Complete the following:

- PHIL 2050 Ethics and Values IH (3)
- PHIL 205G Ethics and Values IH GI (3)
- HLTH 1100 Personal Health and Wellness TE (2.0)
- EXSC 1097 Fitness for Life TE (2.0)

Distribution Courses:

- Biology (3)
- Fine Arts (3)
- Humanities (COMM 1020 Recommended) (3)
- Social/Behavioral Science (COMM 2110 Recommended) (3)
- PHYS 2210 Physics for Scientists and Engineers II PP (4)
- CHEM 1210 Principles of Chemistry I PP (4)

Discipline Core Requirements: 78 Credits

- CHEM 1215 Principles of Chemistry I Laboratory (1)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 1000</td>
<td>Introduction to Engineering WE</td>
<td>3</td>
</tr>
<tr>
<td>ECE 2210</td>
<td>Fundamentals of Electric Circuit Analysis</td>
<td>3</td>
</tr>
<tr>
<td>EGDT 1071</td>
<td>3 Dimensional Modeling--Solidworks</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2010</td>
<td>Engineering Statics</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2030</td>
<td>Engineering Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2140</td>
<td>Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2160</td>
<td>Introduction to Materials Science and Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2300</td>
<td>Engineering Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2450</td>
<td>Computational Methods for Engineering Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1220</td>
<td>Calculus II</td>
<td>5</td>
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<tr>
<td>MATH 2210</td>
<td>Calculus III</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2250</td>
<td>Differential Equations and Linear Algebra</td>
<td>4</td>
</tr>
<tr>
<td>ME 3010</td>
<td>System Dynamics I</td>
<td>3</td>
</tr>
<tr>
<td>ME 3140</td>
<td>Machine Design</td>
<td>3</td>
</tr>
<tr>
<td>ME 3210</td>
<td>Manufacturing Processes for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>ME 3310</td>
<td>Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>ME 3320</td>
<td>Heat Transfer</td>
<td>3</td>
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<tr>
<td>ME 3335</td>
<td>Thermal/Fluid Experimentation WE</td>
<td>2</td>
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<tr>
<td>ME 4010</td>
<td>System Dynamics II</td>
<td>3</td>
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<tr>
<td>ME 4015</td>
<td>Control and Vibration Experimentation</td>
<td>2</td>
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<tr>
<td>ME 4410</td>
<td>Computer Aided Engineering</td>
<td>3</td>
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<tr>
<td>ME 4510</td>
<td>Mechanical Engineering Seminar</td>
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<tr>
<td>ME 4810</td>
<td>Mechanical Engineering Capstone I</td>
<td>3</td>
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<tr>
<td>ME 4820</td>
<td>Mechanical Engineering Capstone II</td>
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<tr>
<td>PHYS 2215</td>
<td>Physics for Scientists and Engineers I Lab</td>
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<tr>
<td>PHYS 2220</td>
<td>Physics for Scientists and Engineers II PP</td>
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<tr>
<td>PHYS 2225</td>
<td>Physics for Scientists and Engineers II Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

Elective Requirements: 9 Credits

Choose 9 credits from the following. One course may be taken from Technical Elective list. At least six credit-hours must be at 4000 level.

ME Elective Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME 3130</td>
<td>Kinematics (3)</td>
<td></td>
</tr>
<tr>
<td>ME 3160</td>
<td>Intermediate Materials (3)</td>
<td></td>
</tr>
<tr>
<td>ME 3170</td>
<td>Introduction to Plastics and Composites (3)</td>
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<tr>
<td>ME 3300</td>
<td>Applied Thermodynamics (3)</td>
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<tr>
<td>ME 4180</td>
<td>Compliant Mechanisms (3)</td>
<td></td>
</tr>
<tr>
<td>ME 4380</td>
<td>Design of Thermal/Fluid Systems (3)</td>
<td></td>
</tr>
<tr>
<td>ME 4390</td>
<td>Heating Ventilating and Air Conditioning Design (3)</td>
<td></td>
</tr>
<tr>
<td>ME 4420</td>
<td>Finite Element Methods (3)</td>
<td></td>
</tr>
<tr>
<td>ME 4550</td>
<td>Global Engineering (3)</td>
<td></td>
</tr>
<tr>
<td>ME 490R</td>
<td>Advanced Current Topics in Mechanical Engineering (1)</td>
<td></td>
</tr>
</tbody>
</table>

Technical Elective Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME 481R</td>
<td>Mechanical Engineering Internship (1-3)</td>
<td></td>
</tr>
<tr>
<td>ECE 3710</td>
<td>Applied Probability and Statistics for Engineers and Scientists (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 3400</td>
<td>Project Management WE (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 3850</td>
<td>Quality Management in Technology (3)</td>
<td></td>
</tr>
</tbody>
</table>

Students may also take upper level computer, electrical, and mechanical engineering classes as technical electives in consultation with their faculty advisors and approval of the department offering the courses.

Graduation Requirements:

1. Completion of a minimum of 125 semester credits, with a minimum of 40 mechanical engineering upper-division credits.
2. Overall grade point average of 2.5 or above, with a minimum grade of C in all discipline core and elective requirements.
3. Residency hours - minimum of 30 credit hours through course attendance at UVU. Ten of these hours must be within the last 45 hours earned. At least 12 of the credit hours earned in residence must be in approved ME courses.
4. All transfer credits must be approved in writing by UVU and the mechanical engineering program coordinator.
5. No more than 80 semester hours and no more than 20 hours in ME courses of transfer credit.
6. No more than 6 semester hours may be earned through independent study.
7. Successful completion of at least one Global/Intercultural course.

Mechanical Engineering, B.S.

Careers

1. Demonstrated their ability to perform mechanical engineering analysis to solve problems and to communicate technical information effectively in an engineering or a professional team environment.
2. Advanced professionally by being given more responsibilities and/or have completed a graduate level degree.
3. Continued their professional development through workshops and/or have earned professional licensure.
4. Served in their professional organizations and/or local communities.

Related Careers

- Architectural and Engineering Managers
- Cost Estimators
- Aerospace Engineers
- Mechanical Engineers
- Engineering Teachers, Postsecondary
Engineering Technology

The Engineering Technology department is in the Scott M. Smith College of Engineering. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Engineering Technology department, visit their website.

Course Descriptions
Automation and Electrical Technology, A.S.

Electronics Technology

General Education Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ENGH 1005</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>3</td>
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<tr>
<td>STAT 1040</td>
<td>3</td>
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<tr>
<td>STAT 1045</td>
<td>3</td>
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</tbody>
</table>

Elective Requirements: 9 Credits

Distribution Courses:

1. Biology
2. Physical Science
3. Additional Biology or Physical Science
4. Humanities Distribution
5. Fine Arts Distribution
6. Social/Behavioral Science

Electives (1000 level or higher)

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above with no core course below a C-.
3. Residency hours--minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Automation and Electrical Technology, A.S.

Careers

Electro-Mechanical Technicians

Related Careers

Electro-Mechanical Technicians

Automation and Electrical Technology, A.A.S.

Requirements

Prepares graduates to troubleshoot, wire, repair, adapt, maintain, integrate, install, analyze, and program industrial automated equipment and electrical systems found in automated manufacturing and other industries. Focuses heavily on troubleshooting, motor controls and drives, industrial electronics, sensors, programmable logic controllers.
Engineering Technology

(PLCs) and integration of industrial internet of things *(IIOT) from the plant floor to the human machine interface (HMI).

Teaches single and three phase electrical systems in conjunction with industrial automation and intelligent electronics devices found in both industrial automation and electrical power. Numerous career path options are available for graduates.

**Total Program Credits: 65**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>14 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5.0)</td>
<td></td>
</tr>
<tr>
<td>Any approved Humanities or Fine Art</td>
<td>3</td>
</tr>
<tr>
<td>Any approved Behavioral Science, Social, or Political Science Distribution Course</td>
<td>3</td>
</tr>
<tr>
<td>Any approved Physical Education, Health, Safety, or Environment Course</td>
<td>2</td>
</tr>
<tr>
<td>Any approved Biology or Physical Science</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>51 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AET 1050 Electrical Math I</td>
<td>3</td>
</tr>
<tr>
<td>AET 1060 Electrical Math II</td>
<td>3</td>
</tr>
<tr>
<td>AET 1130 Introduction to Automation</td>
<td>2</td>
</tr>
<tr>
<td>AET 1135 Introduction to Automation Lab</td>
<td>1</td>
</tr>
<tr>
<td>AET 1140 Applied AC Theory</td>
<td>1</td>
</tr>
<tr>
<td>AET 1145 Applied AC Lab</td>
<td>2</td>
</tr>
<tr>
<td>AET 1150 Industrial Logic</td>
<td>1</td>
</tr>
<tr>
<td>AET 1155 Industrial Logic Lab</td>
<td>1</td>
</tr>
<tr>
<td>AET 1250 Industrial Electrical Code</td>
<td>2</td>
</tr>
<tr>
<td>AET 1280 Electric Motor Control</td>
<td>4</td>
</tr>
<tr>
<td>AET 1285 Electric Motor Control Lab</td>
<td>4</td>
</tr>
<tr>
<td>AET 2110 Industrial Electronics I</td>
<td>4</td>
</tr>
<tr>
<td>AET 2115 Industrial Electronics I Lab</td>
<td>2</td>
</tr>
<tr>
<td>AET 2250 Industrial Programmable Logic Controllers—PLCs</td>
<td>4</td>
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<tr>
<td>AET 2255 Industrial Programmable Logic Controllers—PLCs Lab</td>
<td>2</td>
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<tr>
<td>EGDT 1040 Fundamentals of Technical Engineering Drawing</td>
<td>3</td>
</tr>
<tr>
<td>or EGDT 1071 3 Dimensional Modeling—Solidworks</td>
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</tr>
</tbody>
</table>

Choose 12 Credits from the Following Options: 12

| AET 2010 Manufacturing Technology | (1) |
| AET 2015 Manufacturing Technology Lab | (2) |
| AET 2150 Introduction to Fluid Power Systems | (2) |
| AET 2155 Introduction to Fluid Power Systems Lab | (1) |
| AET 2160 Introduction to Industrial Internet of Things | (2) |
| AET 2165 Introduction to Industrial Internet of Things Lab | (1) |
| AET 2270 Industrial Programmable Automation Controllers—PACs | (2) |
| AET 2275 Industrial Programmable Automation Controllers—PACs Lab | (1) |
| AET 2280 Process Control Instrumentation | (2) |
| AET 2285 Process Control Instrumentation Lab | (1) |
| AET 281R Cooperative Work Experience | (1) |
| AET 2900 Capstone Project | (3) |
| AET 291R Special Topics in Industrial Systems | (3) |
| AET 285R Cooperative Correlated Class | (variable) |
| EGDT 1200 Mechanical Drafting and Design | (3) |
| MECH 2300 Microcontroller Architecture and Programming | (3) |
| MECH 2305 Microcontroller Architecture and Programming Lab | (2) |

**Graduation Requirements:**

1. Completion of a minimum of 65 semester credits
2. Overall grade point average of 2.0 (C) or above, with no core course below a 'C'.
3. Residency hours: minimum of 20 credit hours through course attendance at UVU
4. Completion of GE and specified departmental requirements

**Automation and Electrical Technology, A.A.S. Careers**

**Program Learning Outcomes**

1. Apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to safely solve well-defined problems related to electrical and automation systems.
2. Apply solutions for well-defined technical problems and assist with the engineering design, integration, repair, testing, troubleshooting, and installation of systems, components, or processes related to electrical and automation systems.
3. Apply written, oral, and graphical communication in well-defined technical and non-technical environments.
4. Identify and use appropriate technical literature to solve problems, integrate, and troubleshoot electrical automation systems.
5. Safely conduct standard tests, measurements, and experiments and analyze and interpret the results.
6. Function effectively as a member of a technical team.

**Related Careers**

- Electro-Mechanical Technicians

**Mechatronics Engineering Technology, A.A.S.**

**Requirements**

The Mechatronics Engineering Technology Degree from Utah Valley University prepares graduates to work in the Utah manufacturing sector as an automation technologist, design technician, PLC programmer, as well as many other aspects of implementing manufacturing systems. Students complete courses in PLC programming and architecture, materials, CAD, electrical and mechanical components, pneumatics, and motor control. Students will also take courses in technical writing, physics, chemistry, and business to round out their professional profile.

**Total Program Credits: 63**
Engineering Technology

General Education Requirements: 18 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
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</tr>
<tr>
<td>Humanities (ENGL 2100 Recommended)</td>
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<td>3</td>
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<tr>
<td>Social Science (ECON 1010 Recommended)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Physical Science (PHYS 1010 Recommended)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
<td>4</td>
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<tr>
<td>or MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
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</table>

Discipline Core Requirements: 45 Credits

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>EGDT 1071</td>
<td>3 Dimensional Modeling--Solidworks</td>
<td>3</td>
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<tr>
<td>MECH 1010</td>
<td>Fundamentals of Mechatronics</td>
<td>3</td>
</tr>
<tr>
<td>MECH 1200</td>
<td>Electronics in Automation Design</td>
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<tr>
<td>MECH 1205</td>
<td>Electronics in Automation Design Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>MECH 1300</td>
<td>Industrial Wiring for Mechatronic Systems</td>
<td>1</td>
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<tr>
<td>MECH 1305</td>
<td>Industrial Wiring for Mechatronic Systems Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>MECH 2200</td>
<td>Semiconductors Used in Mechatronic Systems</td>
<td>3</td>
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<tr>
<td>MECH 2205</td>
<td>Semiconductors in Mechatronic Systems Lab</td>
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<tr>
<td>MECH 2300</td>
<td>Microcontroller Architecture and Programming</td>
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<tr>
<td>MECH 2305</td>
<td>Microcontroller Architecture and Programming Lab</td>
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<tr>
<td>MECH 2400</td>
<td>Mechanical Components</td>
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<tr>
<td>MECH 2500</td>
<td>Introduction to PLCs in Mechatronic Design</td>
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<td>MECH 2505</td>
<td>Introduction to PLCs in Mechatronic Design Laboratory</td>
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<tr>
<td>MECH 2510</td>
<td>Fundamentals of Automation Controls</td>
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<td>MECH 2515</td>
<td>Fundamentals of Automation Controls Laboratory</td>
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<tr>
<td>MECH 2550</td>
<td>Advanced PLC Programming and Applications</td>
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<tr>
<td>MECH 2555</td>
<td>Advanced PLC Programming and Applications Laboratory</td>
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<tr>
<td>MECH 2600</td>
<td>Introduction to Fluid Power Systems</td>
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<td>MECH 2605</td>
<td>Introduction to Fluid Power Systems Laborator</td>
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<tr>
<td>MECH 2700</td>
<td>Industrial Motor Control Mechatronic Systems</td>
<td>2</td>
</tr>
<tr>
<td>MECH 2705</td>
<td>Industrial Motor Control Mechatronic Systems Laboratory</td>
<td>2</td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Completion of 63 or more credit hours.
2. Overall grade point average of 2.0 (C) or above, with no core course below a C-.
3. Residency hours: minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Mechatronics Engineering Technology, A.A.S.

**Careers**
1. Design a machine
2. Create logic to control the machine
3. Electrically actuate the machine

**Related Careers**
- Architectural and Engineering Managers
- Engineers, All Other
- Engineering Teachers, Postsecondary

Electrical and Control Technology CA, Certificate of Proficiency

**Requirements**
The Certificate of Proficiency in Electrical and Control Technology CA prepares technicians and technologists to troubleshoot, wire, repair, adapt, install, and maintain electrical and industrial motor control equipment found in many local industries. Knowledge and experience are gained through theory and engaging “hands on” labs that prepare graduates to work safely around industrial and commercial electrical equipment. Electrical DC and AC theory, transformers, circuits, wiring, motors, motor controls, relay logic, logic gates, and the National Electrical Code for commercial and industrial systems is emphasized. Skills are developed in troubleshooting, testing, and analyzing electrical circuits. This is the first employable step in the exciting career path of working with electrically automated equipment.

**Total Program Credits: 23**

**Discipline Core Credits: 23 Credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AET 1050</td>
<td>Electrical Math I</td>
<td>3</td>
</tr>
<tr>
<td>AET 1060</td>
<td>Electrical Math II</td>
<td>3</td>
</tr>
<tr>
<td>AET 1130</td>
<td>Introduction to Automation</td>
<td>1</td>
</tr>
<tr>
<td>AET 1135</td>
<td>Introduction to Automation Lab</td>
<td>1</td>
</tr>
<tr>
<td>AET 1140</td>
<td>Applied AC Theory</td>
<td>1</td>
</tr>
<tr>
<td>AET 1145</td>
<td>Applied AC Lab</td>
<td>2</td>
</tr>
<tr>
<td>AET 1150</td>
<td>Industrial Logic</td>
<td>1</td>
</tr>
<tr>
<td>AET 1155</td>
<td>Industrial Logic Lab</td>
<td>1</td>
</tr>
<tr>
<td>AET 1250</td>
<td>Industrial Electrical Code</td>
<td>2</td>
</tr>
<tr>
<td>AET 1280</td>
<td>Electrical Motor Control</td>
<td>4</td>
</tr>
<tr>
<td>AET 1285</td>
<td>Electrical Motor Control Lab</td>
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</tr>
</tbody>
</table>

**Graduation Requirements:**
1. Completion of a minimum of 23 semester credits.
2. Overall grade point average of 2.0 (C) or above, with no core course below a C-.
3. All courses must be completed at UVU.

Electrical and Control Technology CA, Certificate of Proficiency

**Careers**
1. Apply electrical theory to safely wire, troubleshoot, analyze, repair, and build electrical systems and control circuits.
2. Utilize appropriate test equipment and hand tools to troubleshoot, analyze, repair, and install electrical systems and control circuits.

3. Describe the operation of electrical components, motors, generators, transformers, and digital and relay logic in an electrical automation system.

### Related Careers
- Electro-Mechanical Technicians

### Mechatronics Engineering Technology, B.S.

#### Requirements
The Mechatronics Engineering Technology Degree from Utah Valley University prepares graduates to work in the Utah manufacturing sector as an automation technologist, design technician, PLC programmer, as well as many other aspects of implementing manufacturing systems. Students complete courses in PLC programming and architecture, materials, CAD, electrical and mechanical components, pneumatics, and motor control. Students will also take courses in technical writing, physics, chemistry, and business to round out their professional profile.

#### Matriculation Requirements:
1. Graduates of the Mechatronics Engineering Technology, Electrical Automation Robotic Technology (E.A.R.T.) or Automation and Electrical Technology (A.E.T.) A.A.S. degree programs at UVU may automatically matriculate into the Bachelor of Science degree program in Mechatronics Engineering Technology. E.A.R.T. and A.E.T. graduates that have not taken college algebra (MATH 1050) should enroll prior to or during their first semester in which they are enrolled in the Mechatronics B.S. program.

#### General Education Requirements:
- **ENGL 1010** Introduction to Academic Writing CC 3
- **ENGL 2010** Intermediate Academic Writing CC 3
- **MATH 1050** College Algebra QL 4
- **PHIL 205G** Ethics and Values IH GI 3
- **HLTH 1100** Personal Health and Wellness TE (2.0) 2
- or **EXSC 1097** Fitness for Life TE 2
- Complete one of the following: 3
  - **HIST 2700** US History to 1877 AS (3.0)
  - **HIST 2710** US History since 1877 AS (3.0)
  - **HIST 1700** American Civilization AS (3.0)
  - **HIST 1740** US Economic History AS (3.0) (recommended)
  - **POLS 1000** American Heritage SS (3.0)
  - **POLS 1100** American National Government AS (3.0)

#### Distribution Courses:
- **BIOL 1010** Recommended 3
### Engineering Technology

#### MECH 3500
Industrial Robots
2

#### MECH 3505
Industrial Robots Laboratory
1

#### MECH 3570
Design Analysis and Rapid Prototyping WE
3

#### MECH 3700
CNC Machines in Mechatronic Design
2

#### MECH 3705
CNC Machines in Mechatronic Design Laboratory
1

#### MECH 4300
Capstone I
2

#### MECH 4305
Capstone I Laboratory
1

#### MECH 4400
Polymers/Composites and Processes
3

#### MECH 4500
Advanced Automation Controls
3

#### MECH 4505
Advanced Automation Controls Laboratory
1

#### MECH 4800
Capstone II WE
3

**Elective Requirements:**
6 Credits

#### MECH 481R
Mechatronics Internship (3)
6

#### MECH 490R
Topics in Mechatronics (3)

### Graduation Requirements:

1. Completion of 121 or more credit hours.
2. Overall grade point average of 2.0 (C) or above, with no core course below a C-
3. Residency hours: minimum of 30 credit hours through course attendance at UVU.
4. Successful completion of at least one Global/Intercultural course.

### Mechatronics Engineering Technology, B.S.

#### Careers

### Program Learning Outcomes

1. Demonstrate proficiency in basic automation technology subjects including: (a) electronic mathematics, (b) AC and DC circuits and components, (c) computer architecture, (d) programmable logic controllers (PLC's), (d) industrial pneumatic and hydraulic systems, and (e) CAD based mechanical design.

2. Demonstrate appropriate technical reading, writing, and communications skills.

3. Demonstrate proficiency in mathematics appropriate for automation technology.

4. Demonstrate proficiency in design, analysis, operation, and troubleshooting of automation systems, including: (a) automation motors (servo, stepper, PMDC, and BLDC), (b) industrial pneumatics (actuators, valves, etc.), (c) PID speed and position controls, and (d) kinematics/dynamics of machines (motion analysis, linkages, and mechanisms).

5. Master PLC programming, operation, and structure for automation systems.

### Related Careers

- Architectural and Engineering Managers
- Engineers, All Other
- Engineering Teachers, Postsecondary
The English and Literature department is in the College of Humanities & Social Sciences. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the English and Literature department, visit their website.
## Course Descriptions

**Cinema Studies**

The minor broadens students’ knowledge of how these texts shape and are shaped by culture. As an interdisciplinary program, cinema studies draws on faculty expertise from various disciplines and includes global and historical perspectives. The minor also builds personal knowledge and professional competencies.

### Total Program Credits: 15

| Matriculation Requirements: | 1. AAAS degree or higher from a regionally accredited institution of higher learning and one year full-time employment. |
| Complete the following: | 12 Credits |
| **Discipline Core Requirements:** | ENGL 2050 Editing 3 |
| | ENGL 2100 Technical Communication HH WE 3 |
| | ENGL 3050 Advanced Editing and Design for Print Media 3 |
| | ENGL 3340 Digital Document Design 3 |
| Elective Requirements: | 3 Credits |
| Complete ONE of the following: | 3 |
| **Elective Requirements:** | ENGL 3300 Collaborative Communication for Technology Professions (3) |
| | ENGL 3320 Grant and Proposal Writing (3) |
| | ENGL 4340 Advanced Technical Communication (3) |
| | ENGL 436R Topics in Technical Communication (3) |

### Graduation Requirements:

1. Completion of a minimum of 15 credits.
2. Overall GPA of 2.0 or above.
3. Residency hours -- Minimum of 4 credits required through Course attendance at UVU.

## Cinema and Media Studies, Minor

**Requirements**

Cinema Studies focuses on analyzing film and the screen arts as some of the most important cultural productions of the twenty-first century. Students approach movies as cultural texts and gain an understanding of the social, political, historical, and industrial contexts that produce cinema. The minor broadens students’ knowledge of how these texts...
 academy, but in any of the many situations in which language influences human activity.

**Total Program Credits: 21**

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>21 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Prerequisite:</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2250 Introduction to Creative Writing HH (3)</td>
<td></td>
</tr>
<tr>
<td>or ENGL 225H Introduction to Creative Writing Honors HH (3)</td>
<td></td>
</tr>
<tr>
<td>Complete THREE from the following</td>
<td>9</td>
</tr>
<tr>
<td>ENGL 3420 Intermediate Fiction Writing (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 3430 Play Writing for Creative Writers (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 3440 Intermediate Poetry Writing (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 3450 Intermediate Creative Nonfiction Writing (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 4420 Advanced Fiction Writing WE (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 4440 Advanced Poetry Writing WE (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 4450 Advanced Creative Nonfiction Writing WE (3)</td>
<td></td>
</tr>
<tr>
<td>Complete the following:</td>
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<tr>
<td>ENGL 412R Studies in Literary Genres ¹</td>
<td>3</td>
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<tr>
<td>Choose TWO from the following:</td>
<td>6</td>
</tr>
<tr>
<td>ENGL 347R Popular Genre Writing (3) ¹</td>
<td></td>
</tr>
<tr>
<td>ENGL 348R Creative Writing Craft and Theory (3) ¹</td>
<td></td>
</tr>
<tr>
<td>ENGL 4490 Creative Writing Capstone (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 412R Studies in Literary Genres (3) (in a different genre) ¹</td>
<td></td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Complete all courses with no grade lower than a C-.

**Footnote**

¹ Course may be repeated with a different topic

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### English Literary Studies, Minor

**Requirements**

UVU’s English program is designed to give students skill, confidence, and versatility in writing, speaking, and interpreting texts. The program provides opportunities for students to consider and practice the applications of effective language use in diverse situations: professional, pragmatic, social, political, and aesthetic. The English program emphasizes knowledge and use of standard English in all written work, yet incorporates an understanding that English is a desirably diverse and variable phenomenon. The courses of study in English are designed to familiarize students with much of the traditional canon of literature. They are also designed to provide students with the critical and ethical skills necessary to interrogate this canon, to incorporate and legitimize their own and others’ “different” voices, not just in the academy, but in any of the many situations in which language influences human activity.

**Total Program Credits: 21**

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Literary History (Complete ONE of the following):</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2850 Literary History I</td>
<td></td>
</tr>
<tr>
<td>or ENGL 2870 Literart History II</td>
<td></td>
</tr>
</tbody>
</table>
American Literature (Complete ONE of the following): 3
- ENGL 3510 Early American Literature (3)
- ENGL 3520 Nineteenth Century American Literature (3)
- ENGL 3530 Modern American Literature (3)
- ENGL 3540 Contemporary American Literature (3)
British Literature (Complete ONE of the following): 3
- ENGL 3610 Medieval Literature (3)
- ENGL 3620 Tudor and Stuart Literature (3)
- ENGL 3640 British Literature of the Long Eighteenth Century (3)
- ENGL 3650 Victorian Literature (3)
- ENGL 3660 British Literature Since 1900 (3)
Electives (Complete TWO of the following): 6
- ENGL 357G Native American Literature GI (3)
- ENGL 3710 Literature by Women (3)
- ENGL 373R Literature of Cultures and Places (3)
- ENGL 374G Literature of the Sacred GI (3)
- ENGL 376G World Literature GI (3)
- ENGL 377G Latina/o Literature in America (3)
- ENGL 3780 Mormon Literature (3)
- ENGL 3790 Contemporary LGBTQ Literature (3)
- ENGL 3820 History of Literary Criticism (3)
- ENGL 3890 Contemporary Critical Approaches to Literature WE (3)
- ENGL 4250 Adolescent Literature (3)
- ENGL 4570 Studies in the Novel (3)
- ENGL 463R Studies in Shakespeare (3)
- ENGL 471R Eminent Authors (3)
- ENGL 476G Multi-ethnic Literature in America (3)
- ENGL 486R Topics in Literature (3)

Graduation Requirements:
1. Complete all courses with no grade lower than a C-.

Technical Communication, Minor

Requirements
UVU’s English program is designed to give students skill, confidence, and versatility in writing, speaking, and interpreting texts. The program provides opportunities for students to consider and practice the applications of effective language use in diverse situations: professional, pragmatic, social, political, and aesthetic. The English program emphasizes knowledge and use of standard English in all written work, yet incorporates an understanding that English is a desirably diverse and variable phenomenon. The courses of study in English are designed to familiarize students with much of the traditional canon of literature. They are also designed to provide students with the critical and ethical skills necessary to interrogate this canon, to incorporate and legitimize their own and others’ “different” voices, not just in the academy, but in any of the many situations in which language influences human activity.

Total Program Credits: 20

Matriculation Requirements:
1. Completion of 35 semester credits with a cumulative GPA: 2.5 minimum. Or completion of an Associate in Science or an Associate in Arts degree. Minimum grade of “C” in all courses.
2. Admitted to a bachelor degree program at UVU.

Discipline Core Requirements: 20 Credits
Complete the following:
- ENGL 2100 Technical Communication HH WE (3)
- ENGL 3010 Rhetorical Theory (3)
- ENGL 4390 Writing Studies Capstone (3)
Complete FOUR courses from the following: 12 Credits
- ENGL 3020 Modern English Grammars (3.0)
- ENGL 3050 Advanced Editing and Design for Print Media (3.0)
- ENGL 3300 Collaborative Communication for Technology Professions (3.0)
- ENGL 3320 Grant and Proposal Writing (3.0)
- ENGL 3340 Digital Document Design (3.0)
- ENGL 401R Topics in Rhetoric (3.0)
- ENGL 4340 Advanced Technical Communication (3.0)
- ENGL 436R Topics in Technical Communication (3.0)

Writing Studies, Minor

Requirements
UVU’s English program is designed to give students skill, confidence, and versatility in writing, speaking, and interpreting texts. The program provides opportunities for students to consider and practice the applications of effective language use in diverse situations: professional, pragmatic, social, political, and aesthetic. The English program emphasizes knowledge and use of standard English in all written work, yet incorporates an understanding that English is a desirably diverse and variable phenomenon. The courses of study in English are designed to familiarize students with much of the traditional canon of literature. They are also designed to provide students with the critical and ethical skills necessary to interrogate this canon, to incorporate and legitimize their own and others’ “different” voices, not just in the academy, but in any of the many situations in which language influences human activity.

Total Program Credits: 21

Discipline Core Requirements: 12 Credits
Complete the following:
- ENGL 2100 Technical Communication HH WE (3)
- ENGL 3010 Rhetorical Theory (3)
- ENGL 3060 Visual Rhetoric (3)
- ENGL 3070 Public Rhetoric (3)

Elective Requirements: 9 Credits
Professional Writing Practices: Complete TWO of the following (or other advisor-approved Writing Studies course):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2050</td>
<td>Editing (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 3050</td>
<td>Advanced Editing and Design for Print Media (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 3320</td>
<td>Grant and Proposal Writing (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 4340</td>
<td>Advanced Technical Communication (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 436R</td>
<td>Topics in Technical Communication (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 481R</td>
<td>Internship (1)</td>
<td></td>
</tr>
</tbody>
</table>

Language and Cultural Rhetorics: Complete ONE of the following (or other advisor-approved Writing Studies course):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2030</td>
<td>Writing for Social Change HH (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 3085</td>
<td>Rhetorical Approaches to Popular Culture (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 401R</td>
<td>Topics in Rhetoric (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 402G</td>
<td>Multicultural Rhetorics GI (3)</td>
<td></td>
</tr>
</tbody>
</table>

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**English - Creative Writing Emphasis, B.A.**

**Requirements**

UVU’s English program is designed to give students skill, confidence, and versatility in writing, speaking, and interpreting texts. The program provides opportunities for students to consider and practice the applications of effective language use in diverse situations: professional, pragmatic, social, political, and aesthetic. The English program emphasizes knowledge and use of standard English in all written work, yet incorporates an understanding that English is a desirably diverse and variable phenomenon. The courses of study in English are designed to familiarize students with much of the traditional canon of literature. They are also designed to provide students with the critical and ethical skills necessary to interrogate this canon, to incorporate and legitimize their own and others’ “different” voices, not just in the academy, but in any of the many situations in which language influences human activity.

**Total Program Credits: 120**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>36 Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (3) (recommended for Social Science majors)</td>
<td></td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
</tbody>
</table>

**Discipline Core Requirements:** 18 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 2800</td>
<td>Introduction to the English Major</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2850</td>
<td>Literary History I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2870</td>
<td>Literary History II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2600</td>
<td>Critical Introduction to Literature HH</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 270G</td>
<td>Positionality and Interpretive Methods GI</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3090</td>
<td>Academic Writing for English Majors WE</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Requirements:** 42 Credits

Complete any courses 1000 level or higher. Upper division courses may be necessary for graduation. Please see Adviser.

**Emphasis Requirements:** 24 Credits

**Degree Prerequisite:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2250</td>
<td>Introduction to Creative Writing HH (3)</td>
<td></td>
</tr>
<tr>
<td>or ENGL 225H</td>
<td>Introduction to Creative Writing Honors HH</td>
<td></td>
</tr>
</tbody>
</table>

Complete THREE from the following: 9

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 3420</td>
<td>Intermediate Fiction Writing (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 3430</td>
<td>Play Writing for Creative Writers (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 3440</td>
<td>Intermediate Poetry Writing (3)</td>
<td></td>
</tr>
</tbody>
</table>

---
ENGL 3450 Intermediate Creative Nonfiction Writing (3)

Complete ONE of the following: 3

ENGL 4420 Advanced Fiction Writing WE (3)
ENGL 4440 Advanced Poetry Writing WE (3)
ENGL 4450 Advanced Creative Nonfiction Writing WE (3)

Complete ONE of the following: 3

ENGL 347R Popular Genre Writing (3)
ENGL 348R Creative Writing Craft and Theory (3)
ENGL 412R Studies in Literary Genres (3) (in a different genre)

Complete the following: 6

ENGL 412R Studies in Literary Genres (3) (in a different genre)
ENGL 4490 Creative Writing Capstone (3)

*Course may be repeated with a different topic

Graduation Requirements:

1. Completion of a minimum of 120 semester credits, 40 of which must be upper division.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. For the BA degree, completion of 16 credit hours of course work from one language to include the 1010, 1020, 2010, and 202G/2020 levels or transferred equivalents.
6. No grade below C- in required courses.
7. Successful completion of at least one Global/Intercultural course.

English - Creative Writing Emphasis, B.A.

Careers

1. Acquire increasing mastery of techniques associated with writing fiction, non-fiction, and poetry. Mastery of narrative or poetic techniques will double, on average, over the course of the program.
2. Students will acquire increasing mastery of formal characteristics, rhetoric, mechanics, and formatting. Mastery of formal characteristics will double, on average, over the course of the program.
3. Students will innovate in form or content. Mastery of conventions and willingness to use them strategically will double, on average, over the course of the program.

Related Careers

- English Language and Literature Teachers, Postsecondary
- Postsecondary Teachers, All Other
- Editors
- Writers and Authors

English - Creative Writing Emphasis, B.S.

Requirements

UVU’s English program is designed to give students skill, confidence, and versatility in writing, speaking, and interpreting texts. The program provides opportunities for students to consider and practice the applications of effective language use in diverse situations: professional, pragmatic, social, political, and aesthetic. The English program emphasizes knowledge and use of standard English in all written work, yet incorporates an understanding that English is a desirably diverse and variable phenomenon. The courses of study in English are designed to familiarize students with much of the traditional canon of literature. They are also designed to provide students with the critical and ethical skills necessary to interrogate this canon, to incorporate and legitimize their own and others’ “different” voices, not just in the academy, but in any of the many situations in which language influences human activity.

Total Program Credits: 120

General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<td>Introduction to Statistics with Algebra QL</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (recommended for Business, Education, Science, and Health Professions majors)</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL</td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (recommended for Business majors)</td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS</td>
</tr>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
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</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>Category</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>Biology</td>
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</tr>
<tr>
<td>Physical Science</td>
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<tr>
<td>Additional Biology or Physical Science</td>
<td></td>
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<tr>
<td>Humanities</td>
<td></td>
</tr>
<tr>
<td>Fine Arts</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td></td>
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</tbody>
</table>
Graduation Requirements:

1. Completion of a minimum of 120 semester credits, 40 of which must be 3000 level or higher.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
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English and Literature

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
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<tbody>
<tr>
<td>ENGL 2800 Introduction to the English Major</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2850 Literary History I</td>
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<td>ENGL 2870 Literary History II</td>
<td>3</td>
</tr>
<tr>
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<td>3</td>
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<tr>
<td>ENGL 270G Positionality and Interpretive Methods GI</td>
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<tr>
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</table>

Elective Requirements: 43 Credits

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Emphasis Requirements: 24 Credits

Degree Prerequisite:

or

<table>
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<tr>
<th>Complete ONE of the following:</th>
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<tr>
<td>ENGL 2250 Introduction to Creative Writing HH</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 225H Introduction to Creative Writing Honors HH</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete THREE from the following: 9

| ENGL 3420 Intermediate Fiction Writing (3) |
| ENGL 3430 Play Writing for Creative Writers (3) |
| ENGL 3440 Intermediate Poetry Writing (3) |
| ENGL 3450 Intermediate Creative Nonfiction Writing (3) |

Complete ONE of the following: 3

| ENGL 4420 Advanced Fiction Writing WE (3) |
| ENGL 4440 Advanced Poetry Writing WE (3) |
| ENGL 4450 Advanced Creative Nonfiction Writing WE (3) |

Complete ONE of the following: 3

| ENGL 347R Popular Genre Writing (3)$ |
| ENGL 348R Creative Writing Craft and Theory (3)$ |
| ENGL 412R Studies in Literary Genres (3) (in a different genre)$ |

Complete the following: 6

| ENGL 412R Studies in Literary Genres (3) (in a different genre)$ |
| ENGL 4490 Creative Writing Capstone (3) |

English - Creative Writing Emphasis, B.S.

Careers

Program Learning Outcomes

1. Acquire increasing mastery of techniques associated with writing fiction, non-fiction, and poetry. Mastery of narrative or poetic techniques will double, on average, over the course of the program.
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Related Careers

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- Postsecondary Teachers, All Other
- Editors
- Writers and Authors

English - Literary Studies Emphasis, B.A.

Requirements

UVU's English program is designed to give students skill, confidence, and versatility in writing, speaking, and interpreting texts. The program provides opportunities for students to consider and practice the applications of effective language use in diverse situations: professional, pragmatic, social, political, and aesthetic. The English program emphasizes knowledge and use of standard English in all written work, yet incorporates an understanding that English is a desirably diverse and variable phenomenon. The courses of study in English are designed to familiarize students with much of the traditional canon of literature. They are also designed to provide students with the critical and ethical skills necessary to interrogate this canon, to incorporate and legitimize their own and others' "different" voices, not just in the academy, but in any of the many situations in which language influences human activity.

Total Program Credits: 120

General Education Requirements: 36 Credits

| ENGL 1010 Introduction to Academic Writing CC | 3 |
| ENGH 1005 Literacies and Composition Across Contexts CC (5) |
| ENGL 2010 Intermediate Academic Writing CC | 3 |

Complete one of the following: 3

<p>| MAT 1030 Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors) |
| MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6) |
| STAT 1040 Introduction to Statistics QL (3) (recommended for Social Science majors) |
| STAT 1045 Introduction to Statistics with Algebra QL (5) |
| MATH 1050 College Algebra QL (4) (recommended for Business, Education, Science, and Health Professions majors) |
| MATH 1055 College Algebra with Preliminaries QL (5) |</p>
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<tr>
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<tbody>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (3)</td>
<td></td>
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<tr>
<td></td>
<td><em>(recommended for Business majors)</em></td>
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<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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<td>HLTH 1100</td>
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<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
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</table>

Distribution Courses:

- Biology: 3
- Physical Science: 3
- Additional Biology or Physical Science: 3
- Humanities (Fulfilled with Foreign Language 202G/2020 course): 4
- Fine Arts: 3
- Social/Behavioral Science: 3

Discipline Core Requirements: 18 Credits

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<td>Positionality and Interpretive Methods GI</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3090</td>
<td>Academic Writing for English Majors WE</td>
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Elective Requirements: 42 Credits

- One Foreign Language (Foreign Language 202G/2020 course fulfills Humanities Distribution): 12
- Complete any courses 1000 level or higher. Upper division courses may be necessary for graduation. Please see Adviser: 30

Emphasis Requirements: 24 Credits

American Literature (complete TWO from the following): 6

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<td>Early American Literature (3)</td>
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<td>Nineteenth Century American Literature (3)</td>
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<td>ENGL 3530</td>
<td>Modern American Literature (3)</td>
<td></td>
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<tr>
<td>ENGL 3540</td>
<td>Contemporary American Literature (3)</td>
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British Literature, pre-1700 (complete ONE from the following): 3

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<td>ENGL 3610</td>
<td>Medieval Literature (3)</td>
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<td>ENGL 3620</td>
<td>Tudor and Stuart Literature (3)</td>
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British Literature, post-1700 (complete ONE from the following): 3

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<td>ENGL 3640</td>
<td>British Literature of the Long Eighteenth Century (3)</td>
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<td>ENGL 3650</td>
<td>Victorian Literature (3)</td>
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<td>ENGL 3660</td>
<td>British Literature Since 1900 (3)</td>
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<td>ENGL 3890</td>
<td>Contemporary Critical Approaches to Literature WE</td>
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Eminent Authors (Complete ONE of the following): 3

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<tr>
<td>ENGL 463R</td>
<td>Studies in Shakespeare (3)</td>
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<td>ENGL 471R</td>
<td>Eminent Authors (3)</td>
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Diversity Elective (Complete ONE of the following): 3

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<td>Native American Literature GI (3)</td>
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<td>ENGL 4790</td>
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Graduation Requirements:

1. Completion of a minimum of 120 semester credits, 40 of which must be upper division.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. For the BA degree, completion of 16 credit hours of course work from one language to include the 1010, 1020, 2010, and 202G/2020 levels or transferred equivalents.
6. No grade below C- in required courses.
7. Successful completion of at least one Global/Intercultural course.

English - Literary Studies Emphasis, B.A.

Careers

1. Successful students will signify their appreciation of a broad array of texts by analyzing them for their, achieving a final score of 4 in this area in 4950.
2. Successful students will identify and define important literary critical terms and trends pertinent to a specific time period as exhibited within representative texts, achieving a score of 3 or higher on this learning outcome in English 4950.
3. Successful students will develop and articulate textual interpretations using one or more literary critical schools of thought as a basis, achieving a score of 3 or higher on this learning outcome in 4950.
4. Successful students will present a multipoint argument for a primary text's meaning supported by, achieving a score of 3 or greater on this learning general literary terminology and secondary sources outcome in 4950.

Related Careers

- English Language and Literature Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education
English and Literature

English - Literary Studies Emphasis, B.S.

Requirements

UVU’s English program is designed to give students skill, confidence, and versatility in writing, speaking, and interpreting texts. The program provides opportunities for students to consider and practice the applications of effective language use in diverse situations: professional, pragmatic, social, political, and aesthetic. The English program emphasizes knowledge and use of standard English in all written work, yet incorporates an understanding that English is a desirably diverse and variable phenomenon. The courses of study in English are designed to familiarize students with much of the traditional canon of literature. They are also designed to provide students with the critical and ethical skills necessary to interrogate this canon, to incorporate and legitimize their own and others’ “different” voices, not just in the academy, but in any of the many situations in which language influences human activity.

Total Program Credits: 120

General Education Requirements: 35 Credits

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<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<td>Literacies and Composition Across Contexts CC (5)</td>
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<td>ENGL 2010</td>
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Additional Biology or Physical Science 3

Humanities 3

Fine Arts 3

Social/Behavioral Science 3

Discipline Core Requirements: 18 Credits

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Elective Requirements: 43 Credits

Complete any courses 1000 level or higher. Upper division may be necessary for graduation. Please see Adviser.

Emphasis Requirements: 24 Credits

American Literature (complete TWO from the following) 6

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British Literature, pre-1700 (complete ONE from the following) 3

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British Literature, post-1800 (complete ONE from the following) 3

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<td>British Literature Since the Twentieth Century (3)</td>
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Eminent Authors (Complete ONE of the following) 3

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English - Literary Studies Emphasis, B.S.

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English - Writing Studies Emphasis, B.A.

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Total Program Credits: 120

General Education Requirements: 36 Credits
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- ENGH 1005 Literacies and Composition Across Contexts CC (5)
- ENGL 2010 Intermediate Academic Writing CC 3

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Elective Requirements: 42 Credits
- One Foreign Language (Foreign Language 202G/2020 course fulfills Humanities Distribution) 12
- Complete any courses 1000 level or higher. Upper division courses may be necessary for graduation. Please see Adviser. 30

Emphasis Requirements: 24 Credits
- ENGL 2100 Technical Communication HH WE 3
- ENGL 3010 Rhetorical Theory 3

**Course Catalog 2023-2024**

**Utah Valley University**

**307**
English and Literature

| ENGL 402G | Multicultural Rhetorics GI | 3 |
| ENGL 4390 | Writing Studies Capstone | 3 |

Professional Writing Practices--Complete TWO of the following (or other advisor-approved Writing Studies courses):

| ENGL 2050 | Editing (3) |
| ENGL 3020 | Modern English Grammars (3) |
| ENGL 3050 | Advanced Editing and Design for Print Media (3) |
| ENGL 3320 | Grant and Proposal Writing (3) |
| ENGL 3340 | Digital Document Design (3) |
| ENGL 4340 | Advanced Technical Communication (3) |
| ENGL 436R | Topics in Technical Communication (3) |

Language and Cultural Rhetorics--Complete TWO of the following (or other advisor-approved Writing Studies courses):

| ENGL 2030 | Writing for Social Change HH (3) |
| ENGL 304G | History of the English Language GI (3) |
| ENGL 3060 | Visual Rhetoric (3) |
| ENGL 3070 | Public Rhetorics (3) |
| ENGL 3085 | Rhetorical Approaches to Popular Culture (3) |
| ENGL 401R | Topics in Rhetoric (3) |

Graduation Requirements:

1. Completion of a minimum of 120 semester credits, 40 of which must be upper division.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
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6. No grade below C- in required courses.
7. Successful completion of at least one Global/Intercultural course.

English - Writing Studies Emphasis, B.A.

Careers

1. Acquire increasing mastery of techniques associated with writing fiction, non-fiction, and poetry. Mastery of narrative or poetic techniques will double, on average, over the course of the program.
2. Students will acquire increasing mastery of formal characteristics, rhetoric, mechanics, and formatting. Mastery of formal characteristics will double, on average, over the course of the program.
3. Students will innovate in form or content. Mastery of conventions and willingness to use them strategically will double, on average, over the course of the program.

Related Careers

- English Language and Literature Teachers, Postsecondary
- Postsecondary Teachers, All Other
- Editors
- Technical Writers
- Writers and Authors

English - Writing Studies Emphasis, B.S.

Requirements

UVU's English program is designed to give students skill, confidence, and versatility in writing, speaking, and interpreting texts. The program provides opportunities for students to consider and practice the applications of effective language use in diverse situations: professional, pragmatic, social, political, and aesthetic. The English program emphasizes knowledge and use of standard English in all written work, yet incorporates an understanding that English is a desirably diverse and variable phenomenon. The courses of study in English are designed to familiarize students with much of the traditional canon of literature. They are also designed to provide students with the critical and ethical skills necessary to interrogate this canon, to incorporate and legitimize their own and others' "different" voices, not just in the academy, but in any of the many situations in which language influences human activity.

Total Program Credits: 120

General Education Requirements: 35 Credits

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<th>Course</th>
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<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
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<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC</td>
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<td>ENGL 2010 Intermediate Academic Writing CC</td>
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Complete one of the following: 3

<table>
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<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3)</td>
<td>(recommended for Humanities or Arts majors)</td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)</td>
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<tr>
<td>STAT 1040 Introduction to Statistics QL (3) (recommended for Social Science majors)</td>
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<tr>
<td>STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
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<tr>
<td>MATH 1050 College Algebra QL (4) (recommended for Business, Education, Science, and Health Professions majors)</td>
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<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1090 College Algebra for Business QL (3) (recommended for Business majors)</td>
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</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
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<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
<td></td>
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<tr>
<td>HIST 1700 American Civilization AS (3)</td>
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<tr>
<td>HIST 1740 US Economic History AS (3)</td>
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<tr>
<td>POLS 1000 American Heritage SS (3)</td>
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<tr>
<td>POLS 1100 American National Government AS (3)</td>
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</table>

Complete the following:

<table>
<thead>
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<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
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<tr>
<td>HLTH 1100 Personal Health and Wellness TE</td>
<td>2</td>
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<tr>
<td>or EXSC 1097 Fitness for Life TE</td>
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</tr>
</tbody>
</table>

Distribution Courses:

- Biology: 3
- Physical Science: 3
Graduation Requirements:

1. Completion of a minimum of 120 semester credits, 40 of which must be 3000 level or higher.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.

Overall grade point average of 2.0 (C) or above. (Departments Residency hours -- minimum of 30 credit hours through course completion of a minimum of 120 semester credits, 40 of which courses):

- the following (or other advisor-approved Writing Studies Language and Cultural Rhetorics--Complete TWO of
- Professional Writing Practices--Complete TWO of the

Emphasis Requirements:

- Topics in Rhetoric (3)
- Rhetorical Approaches to Popular
- Public Rhetorics (3)
- Topics in Technical Communication (3)
- Modern English Grammars (3)
- Grant and Proposal Writing (3)
- Advanced Technical Communication (3)
- Writing Studies Capstone 3
- ENGL 4340 Digital Document Design (3)
- ENGL 4390 Writing Studies Capstone 3
- ENGL 4390 Writing Studies Capstone 3
- ENGL 4010 Intermediate Academic Writing CC 3
- ENGL 3085 Rhetorical Approaches to Popular Culture (3)
- Topics in Rhetoric (3)
- ENGL 2030 Writing for Social Change HH (3)
- ENGL 304G History of the English Language GI (3)
- ENGL 3060 Visual Rhetoric (3)
- ENGL 3085 Rhetorical Approaches to Popular Culture (3)
- Topics in Rhetoric (3)

Elective Requirements:

Complete any courses 1000 level or higher. Upper division may be necessary for graduation. Please see Adviser.

43 Credits

English Education, B.A.

Requirements

UVU’s English program is designed to give students skill, confidence, and versatility in writing, speaking, and interpreting texts. The program provides opportunities for students to consider and practice the applications of effective language use in diverse situations: professional, pragmatic, social, political, and aesthetic. The English program emphasizes knowledge and use of standard English in all written work, yet incorporates an understanding that English is a desirably diverse and variable phenomenon. The courses of study in English are designed to familiarize students with much of the traditional canon of literature. They are also designed to provide students with the critical and ethical skills necessary to interrogate this canon, to incorporate and legitimize their own and others’ “different” voices, not just in the academy, but in any of the many situations in which language influences human activity.

Total Program Credits: 122

Matriculation Requirements:

Secondary Education Matriculation Requirements:

1. GPA of 3.0 or higher with no grade lower than a C in content area courses.
2. Completion of all General Education requirements and 70% of content area courses.
3. Pass LiveScan Criminal Background Check.
4. ENGL 2010 and MATH QL courses must have a grade of C or higher.

General Education Requirements:

- ENGL 1010 Introduction to Academic Writing CC 3
- ENGL 1005 Literacies and Composition Across Contexts CC (5)
- ENGL 2010 Intermediate Academic Writing CC 3
- MAT 1030 Quantitative Reasoning QL (3)
- MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)

Related Careers

- English Language and Literature Teachers, Postsecondary
- Postsecondary Teachers, All Other
- Editors
- Technical Writers
- Writers and Authors
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<tr>
<td>HLTH 1100</td>
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<td>Literary History I</td>
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<td>or ENGL 2870</td>
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<td>ENGL 2600</td>
<td>Critical Introduction to Literature HH</td>
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<td>ENGL 270G</td>
<td>Positionality and Interpretive Methods GI</td>
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<td>ENGL 3090</td>
<td>Academic Writing for English Majors WE</td>
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<td>ENGL 463R</td>
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**Secondary Education Licensure *:**

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<tr>
<td>EDSC 4245</td>
<td>Grammar and Unit Design Practicum</td>
<td>1</td>
</tr>
<tr>
<td>Elective</td>
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<td>3</td>
</tr>
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</table>

**Elective Requirements:**

12 Credits

One Foreign Language (Foreign Language 202G/2020 course fulfills Humanities Distribution)

**Graduation Requirements:**

1. Completion of a minimum of 122 semester credits.
2. Overall GPA of 3.0 (B) or above with no grade lower than a C in major required content courses and no grade lower than a B- in Licensure and Methods courses.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. For the BA degree, completion of 16 credit hours of course work from one foreign language to include the 1010, 1020, 2010, and 202G/2020* levels or transferred equivalents.
6. Successful completion of at least one Global/Intercultural course.

**English Education, B.A. Careers**

1. Students will design lessons that are focused on helping students achieve the stated ILO. 80% of the students will score a 3 or higher on the final assessment.
2. Students will design lesson plans that follow a logical sequence and plans for effective transitions between activities.
3. Students will design lesson plans with instructional approaches, learning strategies, and lesson activities that are varied in nature and structure so as to include all learners.

Related Careers

- Education Teachers, Postsecondary
- English Language and Literature Teachers, Postsecondary
- Middle School Teachers, Except Special and Career/Technical Education
- Secondary School Teachers, Except Special and Career/Technical Education

English Education, B.S.

Requirements

UVU’s English program is designed to give students skill, confidence, and versatility in writing, speaking, and interpreting texts. The program provides opportunities for students to consider and practice the applications of effective language use in diverse situations: professional, pragmatic, social, political, and aesthetic. The English program emphasizes knowledge and use of standard English in all written work, yet incorporates an understanding that English is a desirably diverse and variable phenomenon. The courses of study in English are designed to familiarize students with much of the traditional canon of literature. They are also designed to provide students with the critical and ethical skills necessary to interrogate this canon, to incorporate and legitimize their own and others’ “different” voices, not just in the academy, but in any of the many situations in which language influences human activity.

Total Program Credits: 122

Matriculation Requirements:

Secondary Education Matriculation Requirements:

1. ENGL and MATH QL courses must have a grade C or higher.
2. GPA of 3.0 or higher with no grade lower than a C in content area courses.
3. Completion of all General Education requirements and 70% of content area courses.
4. Pass LiveScan Criminal Background Check.

General Education Requirements: 35 Credits

- ENGL 1010 Introduction to Academic Writing CC (3)
- ENGL 1005 Literacies and Composition Across Contexts CC (5)
- ENGL 2010 Intermediate Academic Writing CC (3)

Complete one of the following: 3 Credits

- MAT 1030 Quantitative Reasoning QL (3)
- MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)
- STAT 1040 Introduction to Statistics QL (3)
- STAT 1045 Introduction to Statistics with Algebra QL (5)
- MATH 1050 College Algebra QL (4)
- MATH 1055 College Algebra with Preliminaries QL (5)
- MATH 1090 College Algebra for Business QL (3)

Complete one of the following: 3 Credits

- HIST 2700 US History to 1877 AS (3)

and

- ENGL 2070 Introduction to the English Major (3)
- ENGL 2250 Introduction to Creative Writing HH (3)
- ENGL 2600 Early American Literature (3)
- ENGL 2620 Medieval Literature (3)

Total Program Credits: 74 Credits

American Literature (complete one from the following)

- ENGL 3510 Early American Literature (3)
- ENGL 3520 Nineteenth Century American Literature (3)
- ENGL 3530 Modern American Literature (3)
- ENGL 3540 Contemporary American Literature (3)

British Literature (complete one from the following)

- ENGL 3610 Medieval Literature (3)
- ENGL 3620 Tudor and Stuart Literature (3)
- ENGL 3640 British Literature of the Long Eighteenth Century (3)
- ENGL 3650 Victorian Literature (3)
- ENGL 3660 British Literature Since 1900 (3)

Complete the following:

- ENGL 4250 Adolescent Literature (3)
- ENGL 463R Studies in Shakespeare (3)
- ENGL 4220 Teaching Reading and Literature (3)
- ENGL 4225 Teaching Reading Practicum (1)
- ENGL 4230 Teaching Writing (3)
- ENGL 4235 Teaching Writing Practicum (1)
English and Literature

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<td>EDSC 4990</td>
<td>Teacher Performance Assessment Project WE</td>
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**Elective Requirements:** 13 Credits

- Any course 1000 or higher  13

*ENGL 4240 Grammar and Unit Design in the English Classroom is substituted for EDSC 4440 Content Area Literacies*

Graduation Requirements:

1. Completion of a minimum of 122 semester credits.
2. Overall GPA of 3.0 (B) or above with no grade lower than a C in major required content courses and no grade lower than a B- in Licensure and Methods courses.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

**English Education, B.S.**

**Careers**

1. Students will design lessons that are focused on helping students achieve the stated ILO. 80% of the students will score a 3 or higher on the final assessment.
2. Students will design lesson plans that follows a logical sequence and plans for effective transitions between activities.
3. Students will design lesson plans with instructional approaches, learning strategies, and lesson activities that are varied in nature and structure so as to include all learners.

**Related Careers**

- Education Teachers, Postsecondary
- English Language and Literature Teachers, Postsecondary
- Middle School Teachers, Except Special and Career/Technical Education
- Secondary School Teachers, Except Special and Career/Technical Education
Exercise Science and Outdoor Recreation

Exercise Science and Outdoor Recreation

The Exercise Science and Outdoor Recreation department is in the College of Science. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Exercise Science department, visit their website.

Exercise Science and Outdoor Recreation department

DEPARTMENT CHAIR
CREER, Andrew Professor

FACULTY
BARCELLOS DIAS CLARK, Nicolas Assistant Professor
BOHNE, Michael Professor
CICCONE, Anthony B. Assistant Professor
CREER, Andrew Professor
DRAPER, Shane N. Assistant Professor
JENSEN, Ellis B. Associate Professor
LINDLEY, Betsy Professor
STANDIFIRD, Tyler Assistant Professor
WHEATLEY, Laura Lecturer
WILLIAMS, Scott Associate Professor

Course Descriptions

Exercise Science............................................. 699
Physical Education Sports.................................. 801
Recreation..................................................... 826

Degrees & Programs

Exercise Science and Outdoor Recreation, A.A.

Requirements

Students who complete an Associate's Degree in Exercise Science and Outdoor Recreation have received the basic knowledge necessary to continue their education in a Bachelor's Program or pursue employment in the Fitness industry.

Total Program Credits: 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC</td>
<td>5.0</td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (recommended for Humanities or Arts majors)</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (recommended for Social Science majors)</td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (recommended for Business, Education, Science, and Health Professions majors)</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL</td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (recommended for Business majors)</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS</td>
</tr>
<tr>
<td>HIST 2710</td>
<td>US History since 1877 AS</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS</td>
</tr>
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</table>

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
</tr>
</tbody>
</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
<td>Biology</td>
</tr>
<tr>
<td>Science</td>
<td>Physical Science</td>
</tr>
<tr>
<td>Science</td>
<td>Additional Biology or Physical Science</td>
</tr>
<tr>
<td>Science</td>
<td>Humanities Distribution</td>
</tr>
<tr>
<td>Science</td>
<td>Fine Arts Distribution</td>
</tr>
<tr>
<td>Science</td>
<td>Social/Behavioral Science</td>
</tr>
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</table>

Discipline Core Requirements: 16 Credits

Complete 13 credits from the following: 13

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1110</td>
<td>Elementary Chemistry for the Health Sciences PP</td>
</tr>
<tr>
<td>ZOOL 2320</td>
<td>Human Anatomy BB</td>
</tr>
<tr>
<td>ZOOL 2325</td>
<td>Human Anatomy Laboratory</td>
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</tr>
<tr>
<td>ZOOL 2325</td>
<td>Human Physiology Laboratory</td>
</tr>
<tr>
<td>STAT 2040</td>
<td>Principles of Statistics QL</td>
</tr>
<tr>
<td>EXSC 2700</td>
<td>Foundations of Exercise Science GI</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra QL (recommended for Business majors)</td>
</tr>
</tbody>
</table>

Elective Requirements: 9 Credits

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same Foreign Language</td>
<td>8</td>
</tr>
<tr>
<td>Any 1000-level course or higher</td>
<td>1</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
Exercise Science and Outdoor Recreation

2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours – minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. For the AA degree, completion of 8 credit hours of course work from one language.

1-ZOOL 1090 Introduction to Human Anatomy and Physiology BB strongly recommended

Exercise Science and Outdoor Recreation, A.A. Careers

1. Graduates will be proficient in critical thinking and problem solving.
2. Students will graduate in a timely manner.
3. Students will express satisfaction with opportunities for undergraduate research, and applied learning through service-learning and internship opportunities throughout the program.
4. Graduates will be proficient in applied skills that support professional competencies

Related Careers
• Recreation and Fitness Studies Teachers, Postsecondary
• Athletes and Sports Competitors
• Coaches and Scouts
• Fitness Trainers and Aerobics Instructors

Exercise Science and Outdoor Recreation, A.S. Requirements

Students who complete an Associate's Degree in Exercise Science and Outdoor Recreation have received the basic knowledge necessary to continue their education in a Bachelor's Program or pursue employment in the Fitness industry.

Total Program Credits: 60

General Education Requirements: 35 Credits

<table>
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<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
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<tr>
<td>or ENGH 1005</td>
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</tr>
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<td>ENGL 2010</td>
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<td>3</td>
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<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS</td>
<td>3.0</td>
</tr>
<tr>
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<td>3.0</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS</td>
<td>3.0</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS</td>
<td>3.0</td>
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<td>POLS 1100</td>
<td>American National Government AS</td>
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Distribution Courses:

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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>CHEM 1110</td>
<td>Elementary Chemistry for the Health Sciences PP</td>
<td>4.0</td>
</tr>
<tr>
<td>Physical</td>
<td>ZOOL 2320</td>
<td>Human Anatomy BB</td>
<td>3.0</td>
</tr>
<tr>
<td>Science</td>
<td>ZOOL 2420</td>
<td>Human Physiology</td>
<td>3.0</td>
</tr>
<tr>
<td>Humanities</td>
<td>ZOOL 2425</td>
<td>Human Physiology Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>STAT 2040</td>
<td>Principles of Statistics QL</td>
<td>4.0</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>EXSC 2500</td>
<td>Sports Medicine</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Any EXSC or PETE courses approved by department (maximum of 2 hours may be applied to graduation)

Elective Requirements: 9 Credits

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete any 1000-level or higher</td>
<td>9</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Footnote

1-ZOOL 1090 strongly recommended
Exercise Science and Outdoor Recreation, A.S.

Careers
1. Graduates will be proficient in critical thinking and problem solving.
2. Students will graduate in a timely manner (50% of students will complete the program in 9 or less semesters (where 1 or 2 blocks in the same summer represent 1 semester).
3. Students will express satisfaction with opportunities for undergraduate research, and applied learning through service-learning and internship opportunities throughout the program.
4. Graduates will be proficient in applied skills that support professional competencies.

Related Careers
- Recreation and Fitness Studies Teachers, Postsecondary
- Athletes and Sports Competitors
- Coaches and Scouts
- Fitness Trainers and Aerobics Instructors

Exercise Science, Minor

Requirements
The Exercise Science curriculum has been designed to address student needs and current market demands. Through practical experiences in laboratory settings using state of the art equipment, students are exposed to a wide range of engaged learning experiences as well as research opportunities designed to develop essential skills necessary to be successful in a variety of major related fields.

Total Program Credits: 24

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>24 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXSC 270G Foundations of Exercise Science GI</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 3270 Exercise Testing and Preparation</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 3500 Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 3700 Exercise Physiology</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 3705 Exercise Physiology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ZOOL 2320 Human Anatomy BB</td>
<td>3</td>
</tr>
<tr>
<td>ZOOL 2325 Human Anatomy Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ZOOL 2420 Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>ZOOL 2425 Human Physiology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 3550 Motor Learning and Control WE</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 3750 Psychosocial Aspects of Human Performance</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 4000 Clinical Exercise Physiology</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 4100 Physiology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 4500 Advanced Sports Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 4550 Principles of Strength and Conditioning</td>
<td>3</td>
</tr>
</tbody>
</table>

Exercise Science, Minor Careers
1. Enhance critical thinking and problem solving skills
2. Develop skills that support professional competencies through undergraduate research, service learning, and internship opportunities
3. Prepare students to successfully apply obtained knowledge and skills within their chosen profession

Related Careers
- Exercise Physiologists

Outdoor Recreation, Minor

Requirements
In the Exercise Science and Outdoor Recreation Minor students complete courses in Anatomy, Physiology, Sport Medicine, Exercise Testing and Prescription, and Exercise Physiology. The program is designed to prepare students for employment at the entry level in health and fitness related occupations as well as for higher education.

Total Program Credits: 20

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Admitted to a bachelor degree program at UVU.</td>
<td></td>
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<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>20 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REC 1535 Backpacking</td>
<td>1</td>
</tr>
<tr>
<td>REC 2200 Foundations of Recreation</td>
<td>3</td>
</tr>
<tr>
<td>REC 2400 Principles of Experiential Education in Recreation</td>
<td>3</td>
</tr>
<tr>
<td>REC 3100 Recreation Program Planning</td>
<td>3</td>
</tr>
<tr>
<td>REC 3400 Risk Management</td>
<td>3</td>
</tr>
<tr>
<td>Complete 1 credit from the following:</td>
<td>1</td>
</tr>
<tr>
<td>REC 1500 Canoeing I (1.0)</td>
<td></td>
</tr>
<tr>
<td>REC 1527 Rock Climbing I (1.0)</td>
<td></td>
</tr>
<tr>
<td>REC 1550 Mountain Biking (1.0)</td>
<td></td>
</tr>
<tr>
<td>REC 1580 Kayak Touring(1.0)</td>
<td></td>
</tr>
<tr>
<td>Complete 6 credits from the following:</td>
<td>6</td>
</tr>
<tr>
<td>REC 3200 Inclusive Recreation (3.0)</td>
<td></td>
</tr>
<tr>
<td>REC 3500 Recreation Administration (3.0)</td>
<td></td>
</tr>
<tr>
<td>REC 3700 Natural Resource Interpretation (3.0)</td>
<td></td>
</tr>
<tr>
<td>REC 385G Ethical Concerns in Recreation (3.0)</td>
<td></td>
</tr>
<tr>
<td>REC 4000 Outdoor Leadership (4.0)</td>
<td></td>
</tr>
<tr>
<td>REC 4400 Natural Resource and Protected Area Management (3.0)</td>
<td></td>
</tr>
<tr>
<td>REC 4500 Wildland Recreation Behavior (3.0)</td>
<td></td>
</tr>
</tbody>
</table>

Outdoor Recreation, Minor Careers
1. Express satisfaction with opportunities for applied learning
2. Comfortable and effective carrying group activities
3. Express satisfaction with opportunities for applied learning, service learning, and learning through coursework

Related Careers
- Recreation and Fitness Studies Teachers, Postsecondary
- Athletes and Sports Competitors
- Coaches and Scouts
- Fitness Trainers and Aerobics Instructors
Exercise Science and Outdoor Recreation

Exercise Science and Outdoor Recreation - Exercise Science Emphasis, B.A.

Requirements

The Exercise Science curriculum has been designed to address student needs and current market demands. Through practical experiences in laboratory settings using state-of-the-art equipment such as the Biodex S4, students are exposed to real-life rehabilitation experiences as well as researching functional abilities and performance aspects of collegiate athletes. Additional classroom and lab experiences allow students to conduct 3-D motion analysis, measure muscle activity using wireless EMG technology, and analyze gait patterns using the GaitRite System, as well as conducting assessments to determine maximum oxygen uptake (VO2 Max), body composition, and anaerobic power.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>37 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
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<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 1055 College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following: 3

- HIST 2700 US History to 1877 AS (3)
- and HIST 2710 US History since 1877 AS (3)
- HIST 1700 American Civilization AS (3)
- HIST 1740 US Economic History AS (3)
- POLS 1000 American Heritage SS (3)
- and POLS 1100 American National Government AS (3)

Complete the following: 3

- PHIL 2050 Ethics and Values IH
- HLTH 1100 Personal Health and Wellness TE
- or EXSC 1097 Fitness for Life TE

Distribution Courses:

| BIOL 1010 General Biology BB 1 | 3 |
| or BIOL 1610 College Biology I BB (4) | |

Physical Science

| Third Science Distribution | 3 |

Humanities (any foreign language 202G/2020 course)

| Fine Arts | 3 |

Social/Behavioral Science

| 3 |

Discipline Core Requirements: 17 Credits

| EXSC 2500 Sports Medicine | 3 |
| EXSC 3550 Motor Learning and Control WE | 3 |
| EXSC 3750 Psychosocial Aspects of Human Performance | 3 |
| EXSC 3270 Exercise Testing and Prescription 2 | 3 |
| or REC 385G Ethical Concerns in Recreation GI | |

Elective Requirements: 12 Credits

Complete 12 credit hours of course work from one language to include the 1010, 1020, and 2010 levels (202G/2020 level completed in GE requirements).

Emphasis Requirements: 51 Credits

- BIOL 1615 College Biology I Laboratory | 1 |
- CHEM 1110 Elementary Chemistry for the Health Sciences PP | 4 |
- or CHEM 1210 Principles of Chemistry I PP (4) |
- ZOOL 2320 Human Anatomy BB | 3 |
- and ZOOL 2325 Human Anatomy Laboratory | 1 |
- ZOOL 2420 Human Physiology | 3 |
- and ZOOL 2425 Human Physiology Laboratory | 1 |
- EXSC 270G Foundations of Exercise Science GI | 3 |
- EXSC 3500 Kinesiology | 3 |
- EXSC 3700 Exercise Physiology | 3 |
- and EXSC 3705 Exercise Physiology Laboratory | 1 |
- EXSC 3730 Biomechanics | 3 |
- STAT 2040 Principles of Statistics QL | 3 |
- or PSY 3110 Statistics for the Behavioral Sciences (4) |
- or EXSC 3400 Statistical Analysis in Exercise Science (3) |

Choose 22 credits from the following (make sure selections will satisfy the requirements for upper-division course work):

| EXSC 4000 Clinical Exercise Physiology (3) |
| EXSC 4050 Obesity Physiology and Physical Activity (3) |
| EXSC 4100 Physiology of Aging (3) |
| EXSC 4200 Exercise Metabolism (3) |
| EXSC 4400 Physical Activity Promotion in the Community (3) |
| EXSC 4500 Advanced Sports Nutrition (3) |
| EXSC 4550 Principles of Strength and Conditioning (3) |
| EXSC 4600 Advanced Biomechanics (3) |
| EXSC 4700 Advanced Gross Motor Assessment (3) |
| CHEM 1220 Principles of Chemistry II PP (4) |
| PHYS 2020 College Physics II PP (4) |
| ZOOL 4400 Pathophysiology (4) |
| ZOOL 4700 Advanced Anatomy (4) |
| PSY 2300 Abnormal Psychology (3) |

Emphasis Elective Requirements: 3 Credits

- Any course 1000-level or higher | 3 |

Graduation Requirements:

1. Completion of a minimum of 120 semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
Exercise Science and Outdoor Recreation - Exercise Science Emphasis, B.A.

Careers

1. To interact and communicate effectively by presenting information in oral, written, and technology formats; collaborating with professionals and peers; expressing ideas clearly; and giving and receiving feedback.
2. To utilize knowledge, skills, and abilities to evaluate health behavior risk factors; develop, implement, and evaluate exercise and wellness programs, and employ behavioral strategies to motivate individuals to adopt and maintain positive lifestyle behaviors.
3. To demonstrate behavior that preserves the integrity of a profession, prevents misrepresentation, and protects the consumer.
4. To continuously improve knowledge, skills, and abilities and to uphold a professional image through actions and appearance.
5. To demonstrate critical thinking by making decisions based on multiple perspectives and evidence-based practice.

Related Careers

- Recreation and Fitness Studies Teachers, Postsecondary
- Athletes and Sports Competitors
- Coaches and Scouts
- Fitness Trainers and Aerobics Instructors

Exercise Science and Outdoor Recreation - Exercise Science Emphasis, B.S.

Requirements

The Exercise Science curriculum has been designed to address student needs and current market demands. Through practical experiences in laboratory settings using state of the art equipment such as the Biodex S4, students are exposed to real life rehabilitation experiences as well as researching functional abilities and performance aspects of collegiate athletes. Additional classroom and lab experiences allow students to conduct 3-D motion analysis, measure muscle activity using wireless EMG technology, and analyze gait patterns using the GaitRite System, as well as conducting assessments to determine maximum oxygen uptake (VO2 Max), body composition, and anaerobic power.

Total Program Credits: 120

Footnote

1. EXSC students must take BIOL 1610 and REC students must take BIOL 1010
2. EXSC students must take EXSC 3270 and REC students must take REC 385G
3. EXSC students must take EXSC 4950 and REC students must take REC 4950

Exercise Science and Outdoor Recreation - Exercise Science Emphasis, B.S.

General Education Requirements: 36 Credits

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<td>MATH 1050 College Algebra QL</td>
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<tr>
<td>or MATH 1055 College Algebra with Preliminaries QL</td>
<td>5</td>
</tr>
<tr>
<td>Note: Students must obtain the departmental advisor's signature on an approved program plan prior to enrollment in their second semester of study.</td>
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Complete one of the following: 3

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<td>and HIST 2710 US History since 1877 AS</td>
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<td>or HIST 1700 American Civilization AS</td>
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<tr>
<td>or HIST 1740 US Economic History AS</td>
<td>3</td>
</tr>
<tr>
<td>or POLS 1000 American Heritage SS</td>
<td>3</td>
</tr>
<tr>
<td>or POLS 1100 American National Government AS</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>or HLTH 1100 Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097 Fitness for Life TE</td>
<td>2</td>
</tr>
</tbody>
</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1010 General Biology BB</td>
<td>3</td>
</tr>
<tr>
<td>or BIOL 1810 College Biology I BB (4)</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Third Science Distribution</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Discipline Core Requirements: 17 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXSC 2500 Sports Medicine</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 3550 Motor Learning and Control WE</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 3750 Psychosocial Aspects of Human Performance</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 3270 Exercise Testing and Prescription</td>
<td>3</td>
</tr>
<tr>
<td>or REC 385G Ethical Concerns in Recreation GI</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 4300 Research Methods in Exercise Science and Outdoor Recreation WE</td>
<td>3</td>
</tr>
<tr>
<td>or EXSC 4950 Senior Seminar</td>
<td>2</td>
</tr>
</tbody>
</table>

Elective Requirements: 13 Credits

Any 1000 level or higher 13

Emphasis Requirements: 51 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1615 College Biology I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1110 Elementary Chemistry for the Health Sciences PP</td>
<td>4</td>
</tr>
<tr>
<td>or CHEM 1210 Principles of Chemistry I PP</td>
<td>4</td>
</tr>
<tr>
<td>or ZOOL 2320 Human Anatomy BB</td>
<td>3</td>
</tr>
<tr>
<td>and ZOOL 2325 Human Anatomy Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>or ZOOL 2420 Human Physiology</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Students must obtain the departmental advisor's signature on an approved program plan prior to enrollment in their second semester of study.
Exercise Science and Outdoor Recreation

and ZOOL 2425 Human Physiology Laboratory 1
EXSC 270G Foundations of Exercise Science GI 3
EXSC 3500 Kinesiology 3
EXSC 3700 Exercise Physiology 3
and EXSC 3705 Exercise Physiology Laboratory 1
EXSC 3730 Biomechanics 3
STAT 2040 Principles of Statistics QL (4)
or PSY 3110 Statistics for the Behavioral Sciences (4)
EXSC 3400 Statistical Analysis in Exercise Science 3

Complete 22 credits from the following (make sure selections will satisfy the requirements for upper-division course work):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXSC 4000 Clinical Exercise Physiology (3)</td>
<td>EXSC 4050 Obesity Physiology and Physical Activity (3)</td>
</tr>
<tr>
<td>EXSC 4100 Physiology of Aging (3)</td>
<td>EXSC 4200 Exercise Metabolism (3)</td>
</tr>
<tr>
<td>EXSC 4400 Physical Activity Promotion in the Community (3)</td>
<td>EXSC 4500 Advanced Sports Nutrition (3)</td>
</tr>
<tr>
<td>EXSC 4550 Principles of Strength and Conditioning (3)</td>
<td>EXSC 4600 Advanced Biomechanics (3)</td>
</tr>
<tr>
<td>EXSC 4700 Advanced Gross Motor Assessment (3)</td>
<td>CHEM 1220 Principles of Chemistry II PP (4)</td>
</tr>
<tr>
<td>PHYS 2020 College Physics II PP (4)</td>
<td>ZOOL 4700 Advanced Anatomy (4)</td>
</tr>
<tr>
<td>ZOOL 4400 Pathophysiology (4)</td>
<td>PSY 2300 Abnormal Psychology (3)</td>
</tr>
</tbody>
</table>

Emphasis Elective Requirements: 3 Credits
Any courses 1000-level or higher 3

Graduation Requirements:
1. Completion of a minimum of 120 semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. No grades below C- in Discipline Core or Emphasis Courses.
6. Successful completion of at least one Global/Intercultural course.

Note: Students must obtain the departmental advisor’s signature on an approved program plan prior to enrollment in their second semester of study.

Footnote
1. EXSC students must take BIOL 1610 and REC students must take BIOL 1010
2. EXSC students must take EXSC 3270 and REC students must take REC 385G
3. EXSC students must take EXSC 4950 and REC students must take REC 4950

Exercise Science and Outdoor Recreation - Exercise Science Emphasis, B.S.

Careers

1. To interact and communicate effectively by presenting information in oral, written, and technology formats; collaborating with professionals and peers; expressing ideas clearly; and giving and receiving feedback.
2. To utilize knowledge, skills, and abilities to evaluate health behavior risk factors; develop, implement, and evaluate exercise and wellness programs, and employ behavioral strategies to motivate individuals to adopt and maintain positive lifestyle behaviors.
3. To demonstrate behavior that preserves the integrity of a profession, prevents misrepresentation, and protects the consumer.
4. To continuously improve knowledge, skills, and abilities and to uphold a professional image through actions and appearance.
5. To demonstrate critical thinking by making decisions based on multiple perspectives and evidence-based practice.

Related Careers
- Recreation and Fitness Studies Teachers, Postsecondary
- Athletes and Sports Competitors
- Coaches and Scouts
- Fitness Trainers and Aerobics Instructors

Exercise Science and Outdoor Recreation - Outdoor Recreation Management Emphasis, B.A.

Requirements

In addition to a strong background in recreation theory, experiential education, outdoor leadership, risk management, and program planning, graduates of this program leave with a proficiency in a variety of both land and water-based skill acquisition courses, such as avalanche awareness, whitewater kayaking and backpacking. More than preparation for a career in the outdoor field, the major in Outdoor Recreation Management grooms students for a lifetime of outdoor participation and leadership.

Total Program Credits: 120

General Education Requirements: 37 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>
or ENGH 1005 Literacies and Composition Across Contexts CC |
| ENGL 2010 Intermediate Academic Writing CC | 3 |
| MATH 1050 College Algebra QL | 4 |
or MATH 1055 College Algebra with Preliminaries QL (5) |

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
<td>3</td>
</tr>
</tbody>
</table>
or HIST 2710 US History since 1877 AS (3) |
| HIST 1700 American Civilization AS (3) | 3 |
| HIST 1740 US Economic History AS (3) | 3 |
| POLS 1000 American Heritage SS (3) | 3 |
| POLS 1100 American National Government AS (3) |

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
</tr>
</tbody>
</table>

**Distribution Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1010</td>
<td>General Biology BB</td>
<td>3</td>
</tr>
<tr>
<td>or BIOL 1610</td>
<td>College Biology I BB (4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Third Science Distribution</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities (any foreign language 202G/2020 course)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Science</td>
<td>3</td>
</tr>
</tbody>
</table>

**Discipline Core Requirements:** 17 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXSC 2500</td>
<td>Sports Medicine</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 3550</td>
<td>Motor Learning and Control WE</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 3750</td>
<td>Psychosocial Aspects of Human Performance</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 3270</td>
<td>Exercise Testing and Prescription 2</td>
<td>3</td>
</tr>
<tr>
<td>or REC 385G</td>
<td>Ethical Concerns in Recreation GI</td>
<td></td>
</tr>
<tr>
<td>EXSC 4300</td>
<td>Research Methods in Exercise Science and Outdoor Recreation WE</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 4950</td>
<td>Senior Seminar 3</td>
<td>2</td>
</tr>
<tr>
<td>or REC 4950</td>
<td>Senior Seminar</td>
<td></td>
</tr>
</tbody>
</table>

**Elective Requirements:** 12 Credits

**Emphasis Requirements:** 54 Credits

**Graduation Requirements:**

1. Completion of a minimum of 121 semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Completion of 16 credit hours of course work from one language to include the 1010, 1020, 2010, and 202G/2020 levels or transferred equivalents.
6. No grades below C- in Discipline Core or Emphasis Courses.
7. Successful completion of at least one Global/Intercultural course.

**Footnote**

1. EXSC students must take BIOL 1610 and REC students must take BIOL 1010
2. EXSC students must take EXSC 3270 and REC students must take REC385G
3. EXSC students must take EXSC 4950 and REC students must take REC 4950
Exercise Science and Outdoor Recreation

**Exercise Science and Outdoor Recreation - Outdoor Recreation Management Emphasis, B.A.**

**Careers**

1. Students will express satisfaction with opportunities for applied learning, service learning, and learning through coursework and practicum/internship
2. Students will express satisfaction with the program's breadth and depth of opportunities to improve students' outdoor skills
3. Students will express satisfaction with their ability to create and implement programs in the field of recreation
4. Students will be comfortable and effective creating and carrying out group activities
5. With professional preparation in mind, students would feel comfortable recommending this program to peers with similar professional goals

**Related Careers**

- Recreation and Fitness Studies Teachers, Postsecondary
- Athletes and Sports Competitors
- Coaches and Scouts
- Fitness Trainers and Aerobics Instructors

**Exercise Science and Outdoor Recreation - Outdoor Recreation Management Emphasis, B.S.**

**Requirements**

In addition to a strong background in recreation theory, experiential education, outdoor leadership, risk management and program planning, graduates of this program leave with a proficiency in a variety of both land and water-based skill acquisition courses, such as avalanche awareness, whitewater kayaking and backpacking. More than preparation for a career in the outdoor field, the major in Outdoor Recreation Management grooms students for a lifetime of outdoor participation and leadership.

**Total Program Credits: 120**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>36 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
</tr>
<tr>
<td>or MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
</tr>
</tbody>
</table>

**Complete one of the following:**

| HIST 2700                      | US History to 1877 AS (3) |  |
| and HIST 2710                  | US History since 1877 AS (3) |  |
| HIST 1700                      | American Civilization AS (3) |  |
| HIST 1740                      | US Economic History AS (3) |  |
| POLS 1000                      | American Heritage SS (3) |  |
| POLS 1100                      | American National Government AS (3) |  |

**Complete the following:**

| PHIL 2050                      | Ethics and Values IH | 3 |
| HLTH 1100                      | Personal Health and Wellness TE | 2 |
| or EXSC 1097                   | Fitness for Life TE |  |

**Distribution Courses:**

| BIOL 1010                      | General Biology BB | 3 |
| or BIOL 1610                   | College Biology I BB (4) |  |
|                                | Physical Science | 3 |
|                                | Third Science Distribution | 3 |
|                                | Humanities | 3 |
|                                | Fine Arts | 3 |
|                                | Social/Behavioral Science | 3 |

**Discipline Core Requirements:**

**36 Credits**

- EXSC 2500 Sports Medicine | 3 |
- EXSC 3550 Motor Learning and Control WE | 3 |
- EXSC 3750 Psychosocial Aspects of Human Performance | 3 |
- EXSC 3270 Exercise Testing and Prescription | 3 |
- or REC 385G Ethical Concerns in Recreation GI |  |
- EXSC 4300 Research Methods in Exercise Science and Outdoor Recreation WE | 3 |
- EXSC 4950 Senior Seminar | 2 |
- or REC 4950 Senior Seminar |  |

**Elective Requirements:**

**13 Credits**

- Any 1000 level or higher | 13 |

**Emphasis Requirements:**

**54 Credits**

- Complete one of the following:

  | ACC 2010                  | Financial Accounting (3) |  |
| or BIOL 3800              | Conservation Biology (3) |  |
| ENTR 3170                 | Entrepreneurship: Feasibility Analysis (3) |  |
| ENTR 3180                 | Developing Small Business (3) |  |
| ENGL 3320                 | Grant and Proposal Writing (3) |  |
| HR 3430                   | Introduction to Human Resource Management (3) |  |
| or REC 1500               | Canoeing I | 1 |
| or REC 1580               | Kayak Touring |  |
| or REC 1527               | Wilderness First Responder | 2 |
| or REC 1535               | Rock Climbing I | 1 |
| or REC 1600               | Backpacking | 1 |
| or REC 2200               | Winter Exploration | 1 |
| or REC 2400               | Principles of Experiential Education in Recreation | 3 |
| or REC 2600               | Principles of Outdoor and Adventure Education | 3 |
| or REC 2700               | Leave No Trace Trainer | 1 |
| or REC 3100               | Recreation Program Planning | 3 |
| or REC 3200               | Inclusive Recreation | 3 |
| or REC 3300               | Wilderness Skills | 1 |
| or REC 3400               | Risk Management | 3 |
| or REC 3500               | Recreation Administration | 3 |
| or REC 420R               | Outdoor Leadership and Management Practicum | 2 |

320 Course Catalog 2023-2024 Utah Valley University
Exercise Science and Outdoor Recreation

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REC 4400</td>
<td>Natural Resource and Protected Area Management</td>
<td>3</td>
</tr>
<tr>
<td>REC 4800</td>
<td>Professional Preparation in Recreation</td>
<td>1</td>
</tr>
<tr>
<td>REC 481R</td>
<td>Senior Internship (1-8)</td>
<td>7</td>
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</tbody>
</table>

Complete 3 credits from the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>REC 1505</td>
<td>Whitewater Kayaking I (1)</td>
</tr>
<tr>
<td>REC 1516</td>
<td>Ropes Course and Teambuilding (1)</td>
</tr>
<tr>
<td>REC 1525</td>
<td>Mountaineering (1)</td>
</tr>
<tr>
<td>REC 1528</td>
<td>Rock Climbing II (1)</td>
</tr>
<tr>
<td>REC 1550</td>
<td>Mountain Biking (1)</td>
</tr>
<tr>
<td>REC 2010</td>
<td>Avalanche Awareness (1)</td>
</tr>
</tbody>
</table>

Complete 6 credits from the following: 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>REC 2450</td>
<td>Rock Climbing Site Management and Facilitation (3)</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>REC 2650</td>
<td>Principles of Challenge Education</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>REC 2750</td>
<td>Principles of Water Based Adventure Education</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>REC 3700</td>
<td>Natural Resource Interpretation (3)</td>
</tr>
<tr>
<td>REC 4000</td>
<td>Outdoor Leadership (4)</td>
</tr>
<tr>
<td>REC 4500</td>
<td>Wildland Recreation Behavior (3)</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 121 semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. No grades below C- in Discipline Core or Emphasis Courses.
6. Successful completion of at least one Global/Intercultural course.
7. Successful completion of at least two Writing Enriched (WE) courses.

Note: Students must obtain the departmental advisor's signature on an approved program plan prior to enrollment in their second semester of study.

Footnote

1. EXSC students must take BIOL 1610 and BIOL 1610 and REC students must take BIOL1010
2. EXSC students must take EXSC 3270 and REC students must take REC 385G
3. EXSC students must take EXSC 4950 and REC students must take REC 4950

Exercise Science and Outdoor Recreation - Outdoor Recreation Management Emphasis, B.S.

Careers

1. Students will express satisfaction with opportunities for applied learning, service learning, and learning through coursework and practicum/internship
2. Students will express satisfaction with the program's breadth and depth of opportunities to improve students' outdoor skills
3. Students will express satisfaction with their ability to create and implement programs in the field of recreation
4. Students will be comfortable and effective creating and carrying out group activities

Related Careers

- Recreation and Fitness Studies Teachers, Postsecondary
- Athletes and Sports Competitors
- Coaches and Scouts
- Fitness Trainers and Aerobics Instructors
Finance and Economics

Finance and Economics

The Finance and Economics department is in the Woodbury School of Business. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Finance-Economics department, visit their website.

Finance and Economics department

DEPARTMENT CHAIR
Bi, Rachel Associate Professor

FACULTY
Bi, Rachel Associate Professor
CHAN, Leo Associate Professor
CHERRINGTON, Mark Professional in Residence
COX, Vaughn Professional in Residence
CUMMINGS, Benjamin Associate Professor
DEAN, Lukas Ray Associate Professor
KERTAMUS, Layne Professional in Residence
KIA, Amir Professor
LAW, Ryan Professional In Residence
OLIVEIRA, Andre Associate Professor
RICALDI, Laura Associate Professor
SAMAD, Abdu Associate Professor
SINGER, Jeffrey Professional in Residence
SMITH, Hyrum Professional in Residence
SOTOMAYOR, Maritza Associate Professor
STRATTON, Scott Lecturer
SUN, Xu (Keira) Assistant Professor
WASDEN, Cary D. Professional in Residence
WELKER, Adam Assistant Professor

Course Descriptions

Economics.............................................................644
Finance....................................................................704
Business Management..............................................771

Degrees & Programs

Economics, Minor

Requirements

The Minor in Economics is intended for graduates from other disciplines to obtain the basics of economic theory and application to facilitate their ability to use economics analytical processes in the development of professional careers. Graduates learn the concepts of marginal analysis, demand and supply theory, characteristics of production and cost processes, and other related issues.

Total Program Credits: 18

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>12 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2010 Principles of Economics I SS</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2020 Principles of Economics II SS</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3020 Managerial Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3830 History of Economic Thought</td>
<td>3</td>
</tr>
</tbody>
</table>

Finance, Minor

Requirements

The Minor in Finance is intended for graduates from other disciplines to learn the basic analytical skills of financial management, investment, and related financial services industry functions.

Total Program Credits: 18

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>9 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2010 Principles of Economics I SS</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2340 Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 2040 Principles of Statistics QL (4)</td>
<td></td>
</tr>
<tr>
<td>FIN 3100 Principles of Finance</td>
<td>3</td>
</tr>
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</table>

Elective Requirements: 9 Credits

Choose nine hours from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 3345</td>
<td>Business Statistics II (3)</td>
</tr>
<tr>
<td>FIN 3150</td>
<td>Financial Management (3)</td>
</tr>
<tr>
<td>FIN 3400</td>
<td>Investment Management (3)</td>
</tr>
<tr>
<td>FIN 4100</td>
<td>Management of Financial Institutions (3)</td>
</tr>
<tr>
<td>FIN 4160</td>
<td>Portfolio Management (3)</td>
</tr>
<tr>
<td>FIN 4170</td>
<td>Derivative Securities (3)</td>
</tr>
<tr>
<td>FIN 4180</td>
<td>International Finance Management (3)</td>
</tr>
<tr>
<td>FIN 4190</td>
<td>Applied Asset Diversification and Management (3)</td>
</tr>
<tr>
<td>FIN 5130</td>
<td>Financial Statement Analysis and Modeling (3)</td>
</tr>
</tbody>
</table>

Finance, Minor

Careers

1. Students will be effective at corporate financial management.
2. Students will be knowledgeable of the valuation of certain asset classes.
3. Students will be knowledgeable of financial statement analysis and understand how financial statements can be used to evaluate and value a business.

Related Careers

- Chief Executives
- General and Operations Managers
Risk Management, Minor

Requirements
The Minor in Risk Management will help prepare students for possible Chartered Property Casualty Underwriter (CPCU) credentials. It focuses in depth on foundations of risk management and insurance, enterprise risk management, business law for insurance, commercial property risk management and insurance, and commercial liability risk management and insurance. In addition, students will achieve further distinction by complementing their demonstrated expertise in insurance issues with a mastery of general management principles finance, operations, and leadership.

Total Program Credits: 21

Discipline Core Requirements: 21 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MGMT 2340</td>
<td>Business Statistics I</td>
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<tr>
<td>or STAT 2040</td>
<td>Principles of Statistics QL (3)</td>
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<tr>
<td>FIN 3100</td>
<td>Principles of Finance</td>
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<tr>
<td>FIN 4020</td>
<td>Enterprise Risk Management</td>
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<tr>
<td>FIN 4030</td>
<td>Foundations of Risk Management and Insurance</td>
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<td>FIN 4040</td>
<td>Business Law for Insurance Professionals</td>
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<tr>
<td>FIN 4050</td>
<td>Commercial Property Risk Management and Insurance</td>
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</tr>
<tr>
<td>FIN 4060</td>
<td>Commercial Liability Risk Management and Insurance</td>
<td>3</td>
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</table>

Risk Management, Minor

Careers
1. Apply risk management and enterprise risk management principles and practices.
2. Interpret how risk management techniques can be used to address an organization’s property loss exposures.
3. Define how to apply relevant principles of United States law to the business of insurance and risk management.
4. Interpret how risk management techniques can be used to address an organization’s commercial liability loss exposures.
5. Interpret how risk management techniques can be used to address an organization’s commercial exposures.

Related Careers
- Insurance Underwriters
- Actuaries
- Business Teachers, Postsecondary

Finance, B.A.

Requirements
The Bachelor Degree in Finance at WSB prepares graduates for careers in the financial services industry. Students learn basic financial theory as well as specialized courses in financial management of corporate and business organizations, analysis of investment alternatives, and other more sophisticated finance related activities. Graduates go into banking, brokerages, become financial managers, and perform a variety of other financial services functions. Students with language skills may take an appropriate number of courses to obtain a Bachelor of Arts degree.

Total Program Credits: 120

Matriculation Requirements:
- My Educator or IM 2100 Document Processing Applications or IM 2600 Spreadsheet Application
- ACC 2110 Principles of Accounting I
- ECON 2010 Principles of Economics I SS
- MGMT 2240 Business Calculus
- MGMT 2340 Business Statistics I
- MKTG 220G Written Business Communication GI WE

General Education Requirements: 36 Credits

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<td>Introduction to Academic Writing CC</td>
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<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
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</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
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<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
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<tr>
<td>or MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
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<tr>
<td>or MATH 1090</td>
<td>College Algebra for Business QL (3)</td>
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Complete one of the following:

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<th>Credits</th>
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<tr>
<td>HIST 2700</td>
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<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
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<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
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<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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Complete the following:

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<th>Course Title</th>
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<tr>
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<td>Ethics and Values IH</td>
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<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
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<td>Fitness for Life TE</td>
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Distribution Courses:

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<tbody>
<tr>
<td>ECON 2020</td>
<td>Principles of Economics II SS (fulfills Social/Behavioral Science credit)</td>
<td>3</td>
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<tr>
<td>Biology</td>
<td></td>
<td>3</td>
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<tr>
<td>Physical Science</td>
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<tr>
<td>Additional Biology or Physical Science</td>
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<td>Humanities Distribution (any foreign language 202G/2020 class)</td>
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Discipline Core Requirements: 70 Credits

Business Foundation Courses:

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<th>Course Title</th>
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<tbody>
<tr>
<td>ACC 2110</td>
<td>Principles of Accounting I ^3</td>
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<tr>
<td>ACC 2120</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>or IM 2100</td>
<td>Business Computer Proficiency (3)^1</td>
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<tr>
<td>or IM 2600</td>
<td>Spreadsheet Applications (3)^1</td>
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<tr>
<td>or ECON 2010</td>
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Finance and Economics

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GI WE</td>
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<td>or MGMT 2240</td>
<td>Business Calculus</td>
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<td>MGMT 2400</td>
<td>Data Analytics for Business</td>
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</tr>
<tr>
<td>MGMT 2340</td>
<td>Business Statistics I</td>
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Business Core Courses:

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<td>Principles of Finance</td>
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<tr>
<td>ACC 2600</td>
<td>Business Law and Ethics</td>
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<tr>
<td>MKTG 3600</td>
<td>Principles of Marketing</td>
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<td>MGMT 3000</td>
<td>Organizational Behavior WE</td>
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<td>MGMT 3450</td>
<td>Operations Management</td>
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<td>ENTR 493R</td>
<td>Entrepreneurship Lecture Series (1)</td>
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<td>or MGMT 498R</td>
<td>Executive Lecture Series</td>
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<tr>
<td>or ECON 305G</td>
<td>International Economics GI</td>
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<tr>
<td>or MGMT 330G</td>
<td>Survey of International Business GI (3)</td>
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<tr>
<td>or MGMT 332G</td>
<td>Cross-Cultural Communications for International Business GI (3)</td>
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Finance Core Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ECON 3010</td>
<td>Intermediate Microeconomics (3)</td>
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<td>or ECON 3020</td>
<td>Managerial Economics</td>
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<td>FIN 3150</td>
<td>Financial Management</td>
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<td>MGMT 3345</td>
<td>Business Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3400</td>
<td>Investment Management</td>
<td>3</td>
</tr>
<tr>
<td>FIN 4100</td>
<td>Management of Financial Institutions</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4860</td>
<td>Business Strategy Formulation and Implementation</td>
<td>3</td>
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</tbody>
</table>

Finance Elective Requirements:

Complete 12 credits from any 3000 or 4000 level ACC, ECON, or FIN course not already taken in consultation with appropriate faculty or an advisor.2

Elective Requirements: 14 Credits

Complete 2 hours of general electives and 12 credits of any foreign language course 1010, 1020, 2010 sequence

Graduation Requirements:

1. Completion of a minimum of 120 semester credits required in the BA degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all Woodbury School of Business courses. No grade lower than a "C-" in core and specialization courses.
3. Residency hours: Minimum of 30 credit hours of business courses through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two writing enriched courses.

NOTE: Students will be limited to 9 hours of upper-division credit prior to completing matriculation.

Footnote

1. Students will be required to complete My Educator with a score of 80 percent or higher or complete the IM 2010 Business

Finance, B.A.

Careers

1. Students will be effective at corporate financial management.
2. Students will understand basic portfolio theory, implications of the efficient market hypothesis and behavioral finance.
3. Students will be knowledgeable of operation, risk measurement and management, and regulation in financial institutions.
4. Students will be knowledgeable of the valuation of certain asset classes.
5. Students will be knowledgeable of financial statement analysis and understand how financial statements can be used to evaluate and value a business.

Related Careers

- Chief Executives
- General and Operations Managers
- Financial Managers
- Budget Analysts
- Credit Analysts
- Financial Analysts
- Personal Financial Advisors
- Loan Officers
- Financial Specialists, All Other
- Business Teachers, Postsecondary

Finance, B.S.

Requirements

The Bachelor degree in finance at WSB prepares graduates for careers in the financial services industry. Students learn basic financial theory as well as specialized courses in financial management of corporate and business organizations, analysis of investment alternatives, and other more sophisticated finance-related activities. Graduates go into banking, brokerages, become financial managers, and perform a variety of other financial services functions. Students with languages skills may take an appropriate number of courses to obtain a Bachelor of Arts degree.

Total Program Credits: 120

Matriculation Requirements:

- My Educator or IM 2100 Document Processing Applications or IM 2600 Spreadsheet Applications
- ACC 2110 Principles of Accounting I
- ECON 2010 Principles of Economics I SS
- MGMT 2240 Business Calculus
- MGMT 2340 Business Statistics I
- MKTG 220G Written Business Communication GI WE

General Education Requirements:

ENGL 1010 Introduction to Academic Writing CC 3

or ENGH 1005 Literacies and Composition Across Contexts CC (5)

324
### Business Core Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 2010</td>
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<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
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<tr>
<td>or MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
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<td>or MATH 1090</td>
<td>College Algebra for Business QL (3)</td>
<td>3</td>
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<tr>
<td>Complete one of the following:</td>
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<td>3</td>
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<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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<td>and HIST 2710</td>
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<td>American Civilization AS (3)</td>
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</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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<td>American National Government AS (3)</td>
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<td>PHIL 2050</td>
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<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
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<tr>
<td>Distribution Courses:</td>
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<tr>
<td>ECON 2020</td>
<td>Principles of Economics II SS (fulfills Social/Behavioral Science credit)</td>
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<td>Biology</td>
<td></td>
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### Discipline Core Requirements: 70 Credits

#### Business Foundation Courses:

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<tbody>
<tr>
<td>ACC 2110</td>
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<tr>
<td>ACC 2120</td>
<td>Principles of Accounting II</td>
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<tr>
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<tr>
<td>My Educator¹</td>
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<tr>
<td>or IM 2010</td>
<td>Business Computer Proficiency (3)¹</td>
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<tr>
<td>or IM 2600</td>
<td>Spreadsheet Applications (3)¹</td>
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</tr>
<tr>
<td>Complete the following:</td>
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<td></td>
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<tr>
<td>ECON 2010</td>
<td>Principles of Economics I SS</td>
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<td>MGMT 2400</td>
<td>Data Analytics for Business</td>
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<td>Business Calculus</td>
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<td>MGMT 2340</td>
<td>Business Statistics I</td>
<td>3</td>
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<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GI WE</td>
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#### Business Core Courses:

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<td>Principles of Finance³</td>
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<td>MKTG 3600</td>
<td>Principles of Marketing</td>
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<tr>
<td>ACC 2600</td>
<td>Business Law and Ethics</td>
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<td>MGMT 3000</td>
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<td>MGMT 3450</td>
<td>Operations Management</td>
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### Finance and Economics

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<td>MGMT 495R</td>
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<td>or ENTR 493R</td>
<td>Entrepreneurship Lecture Series (1)</td>
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<td>Complete one of the following:</td>
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<tr>
<td>ECON 305G</td>
<td>International Economics</td>
<td>3</td>
</tr>
<tr>
<td>or MGMT 330G</td>
<td>Survey of International Business (3)</td>
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</tr>
<tr>
<td>or MGMT 332G</td>
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### Finance Core Requirements:

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<tr>
<td>ECON 3010</td>
<td>Intermediate Microeconomics</td>
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<td>or ECON 3020</td>
<td>Managerial Economics (3)</td>
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<td>MGMT 3345</td>
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<td>Management of Financial Institutions</td>
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<tr>
<td>MGMT 4860</td>
<td>Business Strategy Formulation and Implementation</td>
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### Finance Elective Requirements:

Choose 12 credits from any 3000 or 4000 level ACC, ECON, or FIN course not already taken in consultation with appropriate faculty or an advisor.

### Elective Requirements: 15 Credits

Complete 15 credits of any courses 1000 or higher

### Graduation Requirements:

1. Completion of a minimum of 120 semester credits required in the BS degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all Woodbury School of Business courses. No grade lower than a “C-” in core and specialization courses.
3. Residency hours: Minimum of 30 credit hours of business courses through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched courses.

**NOTE:** Students will be limited to 9 hours of upper-division credit prior to completing matriculation.

### Footnote

1. Students will be required to complete the Business Computer Proficiency exam with a score of 80 percent or higher or complete the IM 2010 Business Computer Proficiency or IM 2600 course with a grade of B- or higher.
2. Students in the PFP Major will not be authorized for finance major electives except for FIN 3060 Introduction to the PFP Profession. (FIN courses excluded FIN 3200 Financial Counseling, FIN 3220 Risk Management and Insurance, FIN 5300 Tax Planning for Personal Financial Planners, FIN 4200 Financial Counseling Practicum, FIN 5210 Retirement Planning, FIN 5260 Estate Planning Fundamentals, FIN 4270 Wealth Management Seminar, FIN 4290 Technological Applications in Personal Financial Planning, and FIN 5800 Personal Financial Planning Capstone, and FIN 483R Colloquium in PFP Professionalism)
3. Must be completed with a grade of B- or higher.
Finance and Economics

Finance, B.S.

Careers

1. Students will be effective at corporate financial management.
2. Students will understand basic portfolio theory, implications of the efficient market hypothesis and behavioral finance.
3. Students will be knowledgeable of operation, risk measurement and management, and regulation in financial institutions.
4. Students will be knowledgeable of the valuation of certain asset classes.
5. Students will be knowledgeable of financial statement analysis and understand how financial statements can be used to evaluate and value a business.

Related Careers

- Chief Executives
- General and Operations Managers
- Financial Managers
- Budget Analysts
- Credit Analysts
- Financial Analysts
- Personal Financial Advisors
- Loan Officers
- Financial Specialists, All Other
- Business Teachers, Postsecondary

Personal Financial Planning, B.S.

Requirements

The WSB Bachelor of Science in Personal Financial Planning (PFP) prepares graduates with the courses necessary to meet educational requirements to sit for the Certified Financial Planning Board of Standards, Inc. accreditation process. It is intended to prepare students to become fee-for-service professional planners with strong ethical standards who work with families and individuals developing specific budget, asset management, and related planning processes.

Total Program Credits: 120

Matriculation Requirements:

Business Foundation Courses:

ACC 2110 Principles of Accounting I 3

Complete one of the following three computer proficiency choices:

1. My Educator
2. IM 2010 Business Computer Proficiency (3)
3. IM 2600 Spreadsheet Applications (3)

Complete the following:

MGMT 2240 Business Calculus 3
MGMT 2340 Business Statistics I 3
MKTG 220G Written Business Communication GI WE 3

General Education Requirements:

ENGL 1010 Introduction to Academic Writing CC 3
ENGL 1005 Literacies and Composition Across Contexts CC (5)
ENGL 2010 Intermediate Academic Writing CC 3
MATH 1050 College Algebra QL (4)

or MATH 1055 College Algebra with Preliminaries QL (5)

or MATH 1090 College Algebra for Business QL 3

Complete one of the following:

HIST 2700 US History to 1877 AS (3)
and HIST 2710 US History since 1877 AS (3)
HIST 1700 American Civilization AS (3)
HIST 1740 US Economic History AS (3)
POLS 1000 American Heritage SS (3)
POLS 1100 American National Government AS (3)

Complete the following:

PHIL 2050 Ethics and Values IH 3
HLTH 1100 Personal Health and Wellness TE (2)
EXSC 1097 Fitness for Life TE 2

Distribution Courses:

ECON 2010 Principles of Economics I SS 3
Biology 3
Physical Science 3
Additional Biology or Physical Science 3
Humanities 3
Fine Arts 3

Discipline Core Requirements:

Business Foundation Courses:

ACC 2110 Principles of Accounting I 3

Complete one of the following:

My Educator

or IM 2010 Business Computer Proficiency (3)
or IM 2600 Spreadsheet Applications (3)

Complete the following:

MGMT 2400 Data Analytics for Business 3
MGMT 2240 Business Calculus 3
MGMT 2340 Business Statistics I 3
MKTG 220G Written Business Communication GI WE 3

Business Core Courses:

MKTG 2390 Professional Business Presentations 3
MGMT 3000 Organizational Behavior WE 3
FIN 3100 Principles of Finance 3
ECON 305G International Economics GI (3)
or MGMT 330G Survey of International Business GI (3)
or MGMT 332G Cross-Cultural Communications for International Business GI (3)

MGMT 3450 Operations Management 3
MGMT 3600 Principles of Marketing 3
MGMT 4860 Business Strategy Formulation and Implementation 3

Utah Valley University
### Personal Financial Planning Core Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 3060</td>
<td>Introduction to the PFP Profession</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3200</td>
<td>Financial Counseling</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3220</td>
<td>Risk Management and Insurance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3400</td>
<td>Investment Management</td>
<td>3</td>
</tr>
<tr>
<td>FIN 4270</td>
<td>Wealth Management Seminar</td>
<td>3</td>
</tr>
<tr>
<td>FIN 4290</td>
<td>Technological Applications in Personal Financial Planning</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5210</td>
<td>Retirement Planning</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5260</td>
<td>Estate Planning Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5300</td>
<td>Tax Planning for Personal Financial Planners</td>
<td>3</td>
</tr>
<tr>
<td>FIN 5800</td>
<td>Personal Financial Planning Capstone</td>
<td>3</td>
</tr>
<tr>
<td>FIN 481R</td>
<td>Personal Financial Planning Internship (2-8) (for a maximum of 3 credits)</td>
<td>3</td>
</tr>
<tr>
<td>FIN 483R</td>
<td>Colloquium in PFP Professionalism</td>
<td>1</td>
</tr>
</tbody>
</table>

### Elective Requirements:

- **15 Credits**
  - Choose nine (9) semester credit hours from the following courses:
    - FIN 3170 Financial Statement Analysis (3)
    - FIN 4190 Applied Asset Diversification and Management (3)
    - FIN 4200 Financial Counseling Practicum (3)
    - FIN 4600 AFC Examination Preparation (3)
    - FIN 457R Advanced Topics in Finance (3) (Adv Tops FIN SIE Series 7)
    - FIN 5700 CFP Examination Preparation (3)
    - MGMT 494R Seminar (0.5-3) (Real Financial Advisor)
    - MKTG 3650 Professional Selling (3)
  - Additional elective courses:
    - ACC 3010 Intermediate Accounting I (3)
    - ACC 3020 Intermediate Accounting II (3)
    - ACC 3510 Accounting Information Systems (3)
    - ECON 3030 Intermediate Macroeconomics (3)
    - ECON 3060 Money and Banking (3)
    - ECON 3070 Behavioral Economics (3)
    - ECON 305G International Economics GI (3)
    - ECON 3370 Economic Modeling and Data Analytics (3)
    - ECON 3400 Health Economics (3)
    - ECON 4100 Analysis of Financial Institutions and Markets (3)
    - ECON 4400 New Venture Financing (3)
    - FIN 3410 Introduction to Venture Capital Skills (3)
    - FIN 342R Wolverine Fund (3)
    - FIN 4020 Enterprise Risk Management (3)

- **Foundations of Risk Management and Insurance (3)**
- **Business Law for Insurance Professionals (3)**
- **Commercial Property Risk Management and Insurance (3)**
- **Commercial Liability Risk Management and Insurance (3)**
- **Portfolio Management (3)**
- **Derivative Securities (3)**
- **International Finance Management (3)**
- **Real Estate Investment and Securities (3)**
- **Advanced Topics in Finance (3)**
- **Financial Statement Analysis and Modeling (3)**
- **CFA Examination Preparation (3)**
- **Investment Products (3)**
- **Financial Markets (3)**
- **Seminar (0.5-3)**

Other upper division courses as approved by the Department Chair.

- Choose six (6) semester credit hours of any course numbered 1000 or higher

  - Students are strongly encouraged to select from the following courses (in addition to any of the above listed elective courses):
    - PSY 1010 General Psychology SS (3)
    - PSY 2250 Psychology of Interpersonal Relationships (3)
    - PSY 4300 Introduction to Counseling and Psychotherapy (3)
    - COMM 2110 Interpersonal Communication SS (3)
    - PSY 3300 Motivation and Emotion (3)
    - PSY 3460 Personality Theory (3)
    - SOC 1010 Introduction to Sociology SS (3)
    - SOC 3501 Social Psychology (3)
    - SOC 375G Sociology of Aging GI (3)
    - SOC 4400 Social Change (3)
    - CS 1030 Foundations of Computer Science (3)
    - CS 1400 Fundamentals of Programming (3)
    - FAMS 1150 Marriage and Relationship Skills SS (3)
    - FAMS 1500 Human Development Life Span (3)
    - FAMS 240G Contemporary Family Relations GI (3)
    - FAMS 2705 Ethics for Family Interventions WE (3)
    - FAMS 3850 Adult Development and Aging (3)
    - COMM 1020 Public Speaking HH (3)
    - COMM 1050 Introduction to Communication SS (3)
Finance and Economics

| COMM 1500 | Introduction to Mass Communication HH (3) |
| COMM 207G | Introduction to Gender and Communication GI (3) |
| COMM 2120 | Small Group Communication and Decision Making (3) |
| COMM 3410 | Fundamentals of Mediation and Negotiation (3) |
| COMM 3420 | Communication and Conflict (3) |

Graduation Requirements:

1. Completion of a minimum of 120 semester credits required in the BS degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all Woodbury School of Business courses. No grade lower than a "C-" in core and specialization courses.
3. Residency hours: Minimum of 30 credit hours of business courses through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
   Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched courses.

NOTE: Students will be limited to 9 hours of upper-division credit until matriculation into Woodbury School is completed.

Footnote

1. Students will be required to complete My Educator with a score of 80 percent or higher or complete the IM 2010 or IM 2600 course with a grade of B- or higher.

Personal Financial Planning, B.S.

Careers

1. Apply ethical and fiduciary standards in a financial planning situation.
2. Evaluate a client’s financial situation and develop sound financial planning recommendations.
3. Calculate present and future values, interest rate, payment and number of payments of a client’s financial goal.
4. Analyze a client's investments based on a client's unique financial situation.
5. Create a comprehensive written financial plan for a client that is professional and integrates all aspects of their financial situation.

Related Careers

- Personal Financial Advisors
- Credit Counselors
- Business Teachers, Postsecondary
- Securities, Commodities, and Financial Services Sales Agents
## Financial Planning and Analytics Graduate Programs

### Financial Planning and Analytics Graduate Program

The Master of Financial Planning and Analytics Graduate Program is in the Woodbury School of Business. To find the most up-to-date information, including Program Learning Outcomes for the Financial Planning and Analytics Graduate Program, visit their website.

### Course Descriptions

#### Degrees & Programs

**Master of Financial Planning and Analytics, M.F.P.A.**

#### Requirements

The Master of Financial Planning and Analytics (MFPA) degree program prepares students for professional positions in financial planning and financial analytics. Our curriculum is also designed to help our students progress towards professional certifications, including the CERTIFIED FINANCIAL PLANNER(TM) (CFP®) certification and the Chartered Financial Analyst (CFA®) certification. Students with foundational courses in financial planning or financial analytics can further expand their existing knowledge by selecting relevant elective courses in new areas of study. With extensive connections to firms across the nation, we seek to provide the best graduate education possible in financial planning and financial analytics.

#### Total Program Credits: 36

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The university uses a selective admissions process for admitting students to graduate programs. Meeting minimum admissions criteria does not guarantee admission to the graduate program or to the University as a graduate student. The minimum admissions criteria include the following:</td>
</tr>
<tr>
<td>1. Acceptance of an application to the Master of Financial Planning and Analytics program, including payment of the application fee by the established deadline.</td>
</tr>
<tr>
<td>2. Official transcripts from all universities attended properly submitted.</td>
</tr>
<tr>
<td>3. A bachelor’s degree from a regionally accredited college/university, a nationally accredited program, or the international equivalent.</td>
</tr>
<tr>
<td>4. A 3.0 or higher cumulative undergraduate GPA or a 3.0 or higher GPA calculated on the last 60 semester hours (90 quarter hours) of undergraduate coursework.</td>
</tr>
<tr>
<td>5. For international students whose native language is not English, a TOEFL score of 80 iBT (550 pBT) or higher, or an IELTS band score of 6.5 or higher within the past two years.</td>
</tr>
<tr>
<td>6. For international students, all US government requirements for international students must be met.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discipline Core: 18 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the following Core classes</td>
</tr>
<tr>
<td>FIN 6130 Financial Statement Analysis and Modeling 3</td>
</tr>
</tbody>
</table>

| Elective Requirements: 18 Credits |
| Select 18 semester credit hours from the following courses |
| Students preparing to sit for the CFP(R) exam will need to complete the following elective courses: |
| FIN 6060 Financial Planning for Professionals (3) |
| FIN 6210 Retirement Planning (3) |
| FIN 6260 Estate Planning (3) |
| FIN 6300 Income Tax Planning (3) |
| FIN 6800 Financial Planning Capstone and Case Analysis (3) |

### Additional elective courses:

| FIN 6160 International Financial Management (3) |
| FIN 6350 Retirement Income Planning (3) |
| FIN 6370 Wealth Management (3) |
| FIN 6380 Advanced Estate Planning and Asset Protection (3) |
| FIN 6390 Financial Technology (3) |
| FIN 6400 Managing Client Relationships (3) |
| FIN 6450 Planning for Financial Planning Business Owners (3) |
| FIN 6700 CFP Exam Preparation (3) |

### Course Catalog 2023-2024
Financial Planning and Analytics Graduate Programs

<table>
<thead>
<tr>
<th>recommended to prepare for the CFP® exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 679R</td>
</tr>
<tr>
<td>FIN 689R</td>
</tr>
<tr>
<td>FIN 690R</td>
</tr>
<tr>
<td>Other graduate level courses as approved by the MFPA Program Director or Advisor</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Complete a minimum of 36 semester credit hours at the graduate level.
2. Earn a grade of C or higher for all courses used to satisfy the graduation requirement.
3. Achieve a cumulative graduate GPA of 3.0 or higher.
4. Complete a minimum of 24 of the graduate program credit hours at Utah Valley University.

**Master of Financial Planning and Analytics, M.F.P.A. Careers**

1. Apply financial and behavioral theories to investment analysis, portfolio construction, and other financial decisions.
2. Evaluate challenges and opportunities that financial professionals, individuals, and firms face using financial ratios and other analytics.
3. Develop research skills through appropriate methods and analytics for individual and institutional investors.
4. Communicate effectively as competent and ethical financial professionals.

**Related Careers**

- Chief Executives
- General and Operations Managers
- Financial Managers
- Budget Analysts
- Credit Analysts
- Financial Analysts
- Personal Financial Advisors
- Loan Officers
- Financial Specialists, All Other
- Business Teachers, Postsecondary
History and Political Science

The History and Political Science department is in the College of Humanities & Social Sciences. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the History and Political Science department, visit their website.

History and Political Science department

DEPARTMENT CHAIR
DESART, Jay A. Associate Professor

FACULTY
ABDRISAEV, Baktybek Lecturer
BENNETT, Lyn E. Professor
BIBBY, Andrew Associate Professor
CHO, Richard Assistant Professor
COCKERHAM, Geoffrey Associate Professor
DESART, Jay A. Associate Professor
ENGLAND, Lynn Lecturer
GOODE, Michael J. Associate Professor
GRIFFIN, Rick A. Associate Professor
HALVERSON, Lisa Visiting Assistant Professor
HUNT, John M. Associate Professor
JANSEN, Dustin O. Assistant Professor
LENTZ, Mark Associate Professor
LEWIS, Verlan Assistant Professor
MCCARTHY, Brendan Assistant Professor
MUNIS, B. Kal Kal Assistant Professor
NIGRO, Jenna Associate Professor
PANG, Hong Assistant Professor
SMITH, Gori Visiting Assistant Professor
SNEDEGAR, Keith Professor
SYLVESTER, Steven M. Associate Professor
WINANS, Adrienne A. Assistant Professor
YOUNGBULL, Kristin Lecturer

Course Descriptions

American Indian Studies.......................................................... 533
American Studies................................................................. 534
Constitutional Studies............................................................ 597
History..................................................................................... 722
Peace and Justice Studies........................................................ 813
Political Science................................................................. 814
Social Science........................................................................ 838

Degrees & Programs

American Indian Studies, Minor

Requirements

The American Indian Studies minor provides students with academic experiences, skills, and strategies to understand the scope of American indigenous communities within scholarly and applied contexts.

Total Program Credits: 18

Graduation Requirements:

1. Overall GPA of 2.0 or above.
2. Residency hours--minimum of 12 credits counting towards the minor through attendance at UVU.

American Indian Studies, Minor

Careers

1. Identify issues facing American Indians through history
2. Apply the traditional acquisition of knowledge and skills that apply to American Indian communities
3. Evaluate the contribution of American Indian communities to academic knowledge, methods, and ethics

Related Careers

• Area, Ethnic, and Cultural Studies Teachers, Postsecondary

American Studies, Minor

Requirements

American Studies provides students with an interdisciplinary approach to the study of American cultures. Through examination of historical, religious, and literary texts, political institutions, popular culture, film, art, and the physical landscape, students will explore how Americans create meaning in their lives and make sense of the world in which they live. By encouraging students to approach their majors from the perspective of several overlapping disciplines, American Studies courses will foster deeper critical thinking and broader contextualization.

Total Program Credits: 18
Matriculation Requirements:

1. Completion of 30 hours of credit at UVU.
2. Admitted to a bachelor degree program at UVU.

Discipline Core Requirements 6 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMST 2000</td>
<td>Introduction to American Studies HH</td>
<td>3</td>
</tr>
<tr>
<td>AMST 300R</td>
<td>Topics in American Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements 12 Credits

Complete 12 hours from the following list of electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIST 327G</td>
<td>Indians of Utah GI</td>
<td>3</td>
</tr>
<tr>
<td>AIST 3810</td>
<td>Precolumbian America (3)</td>
<td></td>
</tr>
<tr>
<td>AIST 3830</td>
<td>Indians of the Great Plains (3)</td>
<td></td>
</tr>
<tr>
<td>AIST 3850</td>
<td>The Struggle for Self-determination American Indians 1891 to present (3)</td>
<td></td>
</tr>
<tr>
<td>ANTH 3000</td>
<td>Language and Culture LH</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 3360</td>
<td>Contemporary Issues in American Culture (3)</td>
<td></td>
</tr>
<tr>
<td>ANTH 3460</td>
<td>Anthropology of Mormonism (3)</td>
<td></td>
</tr>
<tr>
<td>ANTH 3500</td>
<td>Discourse Semiotics and Representation (3)</td>
<td></td>
</tr>
<tr>
<td>ARTH 3100</td>
<td>History of American Art and Architecture (3)</td>
<td></td>
</tr>
<tr>
<td>COMM 3100</td>
<td>Propaganda and Persuasion (3)</td>
<td></td>
</tr>
<tr>
<td>COMM 3115</td>
<td>Communicating in Environments (3)</td>
<td></td>
</tr>
<tr>
<td>COMM 3700</td>
<td>Free Expression in a Democratic Society (3)</td>
<td></td>
</tr>
<tr>
<td>COMM 3780</td>
<td>Mormons Media and Culture (3)</td>
<td></td>
</tr>
<tr>
<td>CINE 217G</td>
<td>Race Class and Gender in U S Cinema GI HH (3)</td>
<td></td>
</tr>
<tr>
<td>CNST 3870</td>
<td>Constitutional History to Plessy 1896 (3)</td>
<td></td>
</tr>
<tr>
<td>CNST 3880</td>
<td>Constitutional History Since Plessy 1896 (3)</td>
<td></td>
</tr>
<tr>
<td>CNST 4730</td>
<td>Framing of the US Constitution (3)</td>
<td></td>
</tr>
<tr>
<td>CNST 4795</td>
<td>Civil Rights and Civil Liberties (3)</td>
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</tr>
<tr>
<td>ECON 4500</td>
<td>US Economic Development and History (3)</td>
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</tr>
<tr>
<td>EDEL 3050</td>
<td>Foundations of American Education (2)</td>
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<tr>
<td>EDSC 3050</td>
<td>Foundations of American Education (2)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2210</td>
<td>Introduction to Folklore HH (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2510</td>
<td>American Literature before 1865 HH (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2520</td>
<td>American Literature after 1865 HH (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 3520</td>
<td>Nineteenth Century American Literature (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 3530</td>
<td>Modern American Literature (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 3540</td>
<td>Contemporary American Literature (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 3710</td>
<td>Literature by Women (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 3780</td>
<td>Mormon Literature (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 4570</td>
<td>Studies in the Novel (3)</td>
<td></td>
</tr>
<tr>
<td>ENGL 476G</td>
<td>Multi-ethnic Literature in America GI (3)</td>
<td></td>
</tr>
<tr>
<td>ENVT 3280</td>
<td>Environmental Law (3)</td>
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</tr>
<tr>
<td>ENVT 3850</td>
<td>Environmental Policy WE (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 3100</td>
<td>Cartography (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 3800</td>
<td>Environmental History of the United States (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 320G</td>
<td>Women in American History to 1870 GI WE (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 321G</td>
<td>Women in American History since 1870 GI (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 322G</td>
<td>History of the American West to 1850 GI WE (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 323G</td>
<td>History of the American West since 1850 GI WE (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 3260</td>
<td>History of Utah (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 371R</td>
<td>Issues and Topics in American History (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 3730</td>
<td>American Origins to 1790 (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 3731</td>
<td>US History-Early Republic through the Progressive Era (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 3732</td>
<td>U.S. History-Progressive Era to the 21st Century (3)</td>
<td></td>
</tr>
</tbody>
</table>
History and Political Science

HIST 3740  American Revolution
(3)

HIST 3800  Environmental History of the United States
(3)

HIST 384G  American Indian History since 1890
GI (3)

HIST 466G  Legacies and Reckonings in the American West
WE(3)

HIST 471R  Special Issues and Topics in American History
(3)

HUM 1010  Humanities Through the Arts HH (3)

HUM 3500  Approaches to Humanities WE (3)

LANG 3000  Language and Culture LH (3)

PHIL 3150  Philosophical Issues in Feminism (3)

PHIL 3470  Pragmatism and American Philosophy
(3)

PHIL 3530  Environmental Ethics
(3)

PHIL 3700  Social and Political Philosophy
(3)

POLS 3150  US Presidency
(3)

POLS 3200  US Congress
(3)

POLS 3400  American Foreign Policy
(3)

PSY 3100  Psychology of Gender
(3)

REC 3700  Natural Resource Interpretation
(3)

SOC 2370  Sociology of Gender
(3)

SOC 263G  Race and Minority Relations GI
(3)

SOC 3430  Sociology of Education
(3)

SOC 3460  Political Sociology
(3)

SOC 4400  Social Change
(3)

Graduation Requirements:

1. Overall grade point average of 2.0 (C) or above.
2. Residency hours—minimum of 12 credit hours through course attendance at UVU.

American Studies, Minor

Careers

1. Apply multiple disciplinary concepts, methods, and approaches to critically evaluate aspects of American culture and society.

Related Careers

- English Language and Literature Teachers, Postsecondary

Chinese Commerce, Minor

Requirements

The Chinese Commerce minor focuses on important aspects of Chinese commerce, language and culture. This program is designed to combine an understanding of the social, political, historical, and economic factors that make China one of the leading international powers today. As such, the minor offers proficiency in the Chinese language, augmented with cultural knowledge of the country and an introduction to international business practices. As an interdisciplinary minor, the program draws on faculty expertise from various disciplines and includes varied perspectives.

Total Program Credits: 22

Matriculation Requirements:

1. Students need to be admitted into a bachelor degree program.

Discipline Core Requirements: 13 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN 2010</td>
<td>Intermediate Chinese I LH</td>
<td>4</td>
</tr>
<tr>
<td>POLS 362G</td>
<td>Modern Chinese Political Economy GI</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4610</td>
<td>International Law</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4620</td>
<td>Developing Business in China</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements: 9 Credits

In addition to 13 credit core requirement, students need to take 9 credit electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN 202G</td>
<td>Intermediate Chinese II HH GI (4)</td>
</tr>
<tr>
<td>CHIN 3050</td>
<td>Advanced Chinese</td>
</tr>
<tr>
<td>CHIN 3200</td>
<td>Business Chinese I (3)</td>
</tr>
<tr>
<td>CHIN 351G</td>
<td>Chinese Culture and Civilization GI</td>
</tr>
<tr>
<td>CHST 362G</td>
<td>Traditional Chinese History GI</td>
</tr>
<tr>
<td>CHST 363G</td>
<td>Modern Chinese History GI</td>
</tr>
<tr>
<td>MGMT 332G</td>
<td>Cross Cultural Communications for International Business GI</td>
</tr>
<tr>
<td>MGMT 352G</td>
<td>Chinese Politics GI</td>
</tr>
<tr>
<td>POLS 3600</td>
<td>International Relations of East Asia WE</td>
</tr>
<tr>
<td>CHIN 4200</td>
<td>Business Chinese II</td>
</tr>
</tbody>
</table>

Or other approved electives

Graduation Requirements

1. Completion of 22 credits.
2. Completion of Baccalaureate Degree.

Chinese Commerce, Minor

Careers

1. Enhances students’ intellectual knowledge in Chinese history, politics, and economy

Utah Valley University

Course Catalog 2023-2024
History and Political Science

2. Enhances students’ practical skills in Chinese language, culture, and business
3. Provide students with the insight and skills to examine cultural, political, and economical phenomena and issues analytically and critically
4. Develop students’ ability to discover connections among disciplines
5. Nurture students’ awareness of interaction among local, national, and global community

Related Careers
- Area, Ethnic, and Cultural Studies Teachers, Postsecondary

Constitutional Studies, Minor

Requirements

Political science enjoys a central position among the social sciences. Aristotle characterized politics as the "queen of the sciences." It is a broad discipline that encompasses philosophical, historical and analytical studies of governments, politics and policies. Political science students learn not only the concepts, theories and methods associated with the discipline, but also gain the cognitive and presentational skills required of tomorrow’s public and private leaders. At its core, politics is about building and maintaining communities at the local, state, national and international levels that enable citizens to live enriching and fulfilling lives. Political science students develop not only an understanding of those communities, but also the ability to influence them.

Total Program Credits: 21

Matriculation Requirements:
To be admitted into the program, students must:
1. Possess a 3.0 grade point average
2. Complete 30 credit hours
3. Complete POLS 1000 American Heritage SS or POLS 1100 American National Government AS

Discipline Core Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 3250</td>
<td>3</td>
</tr>
<tr>
<td>CNST 4720</td>
<td>3</td>
</tr>
<tr>
<td>CNST 4790</td>
<td>3</td>
</tr>
<tr>
<td>CNST 4795</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements:

Complete three of the following courses for 9 credits:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1020</td>
<td>Political Ideologies (3)</td>
</tr>
<tr>
<td>POLS 3260</td>
<td>American Federalism (3)</td>
</tr>
<tr>
<td>POLS 3300</td>
<td>Introduction to Public Administration (3)</td>
</tr>
<tr>
<td>POLS 4610</td>
<td>International Law (3)</td>
</tr>
<tr>
<td>ECON 4500</td>
<td>US Economic Development and History (3)</td>
</tr>
<tr>
<td>CNST 3870</td>
<td>Constitutional History to Plessy 1896 (3)</td>
</tr>
<tr>
<td>CNST 3880</td>
<td>Constitutional History since Plessy 1896 (3)</td>
</tr>
<tr>
<td>HIST 3320</td>
<td>Modern Britain (3)</td>
</tr>
<tr>
<td>CJ 4160</td>
<td>Constitutional Criminal Rights (3)</td>
</tr>
<tr>
<td>CNST 4730</td>
<td>Framing of the US Constitution (3)</td>
</tr>
<tr>
<td>CNST 2600</td>
<td>Comparative Constitutionalism (3)</td>
</tr>
</tbody>
</table>

or any other Coordinator or Chair approved courses.

Constitutional Studies, Minor

Careers

1. Discuss the founding principles and theories behind the drafting and development of the U.S. Constitution.
2. Discuss the basic constitutional powers and structure of the federal government, and its relationship with the various state governments.
3. Discuss the basic origins, drafting, and development of U.S. constitutional rights and liberties, with a focus on The U.S. Bill of Rights, the Modern Civil Rights Movements, and the Ninth, Tenth, Thirteenth, Fourteenth, Fifteenth, and Nineteenth Amendments to the U.S. Constitution.
4. Discuss the various theories of constitutional interpretation employed by the U.S. Supreme Court and the federal judiciary.

Related Careers
- Managers, All Other
- Political Scientists
- Political Science Teachers, Postsecondary

History, Minor

Requirements

UVU’s History Program is dedicated to developing the twenty-first century student. We provide the general student body a broad range of courses that increase global awareness, engagement and informed citizenship, as well as develop critical thinking, writing, and oral expression. In addition, History majors can choose from a large number of in-depth upper division courses that further their content knowledge and expand their abilities to critically analyze past and current events in a variety of regions and nations. In all courses, students and faculty observe the human experience by investigating the diverse historical perspectives of the past and present. History faculty endeavor to teach in ways that foster independent thinking, engage the students with historical conversations and debates, and improve students’ ability to communicate in a variety of media. Students who successfully complete our programs will have a valuable set of skills for further study in graduate and professional programs, and careers in public service or private enterprise.

Total Program Credits: 21

Matriculation Requirements:

1. Successful completion of one history course at UVU.
2. Admitted to a bachelor degree program at UVU.

Discipline Core Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1500</td>
<td>World History to 1500 SS</td>
</tr>
<tr>
<td>HIST 151G</td>
<td>World History from 1500 to the Present SS GI</td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS</td>
</tr>
<tr>
<td>HIST 2710</td>
<td>US History since 1877 AS</td>
</tr>
</tbody>
</table>

Elective Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any three upper division history courses</td>
<td>9</td>
</tr>
</tbody>
</table>

Notes:
Graduation Requirements:
1. Complete all history courses with a grade of "C-" or better.

Peace and Justice Studies, Minor

Requirements
The Peace & Justice Studies minor approaches phenomena empirically and theoretically associated with violence/nonviolence and injustice/justice, including peace, justice, mediation and conflict resolution, philosophy and religion. These topics are investigated at multiple levels from the realm of the personal and familial, to international structures, conventions, institutions, and history.

Total Program Credits: 21

Discipline Core Requirements: 9 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PJST 3400</td>
<td>Conflict Transformation Resolution and Sustainable Peace</td>
<td></td>
</tr>
<tr>
<td>PJST 4900</td>
<td>Peace and Justice Studies Capstone WE</td>
<td></td>
</tr>
<tr>
<td>PJST 3000</td>
<td>Introduction to Peace and Justice Studies WE</td>
<td></td>
</tr>
</tbody>
</table>

Elective Requirements: 12 Credits

Complete 12 credit hours selected from the following list: 12

Peace, War, and Conflict:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PJST 3020</td>
<td>The Ethics of War and Peace (3)</td>
<td></td>
</tr>
<tr>
<td>PJST 3030</td>
<td>The Scientific Study of War and Peace (3)</td>
<td></td>
</tr>
<tr>
<td>PJST 3040</td>
<td>Peace in Historical Context (3)</td>
<td></td>
</tr>
<tr>
<td>PJST 3100</td>
<td>Introduction to Human Security (3)</td>
<td></td>
</tr>
<tr>
<td>PJST 3200</td>
<td>Global Poverty Facts Causes and Solutions (3)</td>
<td></td>
</tr>
<tr>
<td>PJST 3300</td>
<td>Community Development (3)</td>
<td></td>
</tr>
<tr>
<td>PJST 4200</td>
<td>Advanced Poverty Studies: Global Problems and Policies (3)</td>
<td></td>
</tr>
<tr>
<td>PJST 4300</td>
<td>Race Gender and Class in Peace and Justice (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 3100</td>
<td>Survey of International Terrorism (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 4130</td>
<td>Anti-Semitism and the Holocaust (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 3650</td>
<td>Model United Nations (3)</td>
<td></td>
</tr>
<tr>
<td>AIST 3850</td>
<td>The Struggle for Self-determination--American Indians 1891 to present (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 3540</td>
<td>History of South Africa (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 4140</td>
<td>Genocide in the Twentieth Century (3)</td>
<td></td>
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</tbody>
</table>

Justice:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 3800</td>
<td>Environmental History of the United States (3)</td>
<td></td>
</tr>
<tr>
<td>AIST 4600</td>
<td>Contemporary American Indian Political and Social Issues (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 3500</td>
<td>International Relations of the Middle East (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 3600</td>
<td>International Relations of East Asia WE (3)</td>
<td></td>
</tr>
<tr>
<td>AIST 3600</td>
<td>American Indian Policy and Tribal Government (3)</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements
1. Successful completion of 21 semester credits from the minor.

Peace and Justice Studies, Minor

Careers
1. Apply theories on cooperation and conflict transformation to complex issues of human rights, social justice, and political violence.
2. Discuss strategies available to address conflict and violence and promote conflict resolution and peacebuilding.
3. Discuss the complex social and political realities that give rise to conflict, structural violence, and war.
4. Demonstrate the skills that promote peacebuilding and reconciliation.
5. Discuss career opportunities for students of peace and justice studies.

Related Careers
- NO MATCH

Political Science, Minor

Requirements
Political science enjoys a central position among the social sciences. Aristotle characterized politics as the “queen of the sciences.” It is a broad discipline that encompasses philosophical, historical and analytical studies of governments, politics and policies. Political science students learn not only the concepts, theories and methods associated with the discipline, but also gain the cognitive and presentational skills required of tomorrow’s public and private leaders. At its core, politics is about building and maintaining communities at the local, state, national and international levels that enable citizens to live enriching and fulfilling lives. Political science students develop not only an understanding of those communities, but also the ability to influence them.

Total Program Credits: 21

Matriculation Requirements:
1. Completion of POLS 1010 Introduction to Political Science SS or POLS 1100 American National Government AS.
2. Admitted to a bachelor degree program at UVU.

Discipline Core Requirements: 21 Credits

Complete THREE of the following: 9

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1020</td>
<td>Political Ideologies (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 2100</td>
<td>Introduction to International Relations SS (3)</td>
<td></td>
</tr>
</tbody>
</table>
History and Political Science

POLS 2200 Introduction to Comparative Politics SS (3)
POLS 230G Introduction to Political Theory GI (3)
POLS 3120 Political Parties (3)
POLS 3300 Introduction to Public Administration (3)

Complete TWO of the following: 6
- POLS 3030 State and Local Government (3)
- POLS 3150 US Presidency (3)
- POLS 3200 US Congress (3)
- POLS 3250 Introduction to Law and Politics (3)
- CNST 4720 Foundations of American Constitutionalism (3)
- CNST 4790 US Constitution (3)

Complete TWO of the following: 6
- POLS 3000 Political Analysis (3)
- POLS 3100 Survey of International Terrorism (3)
- POLS 3180 Public Opinion and Political Behavior (3)
- POLS 3400 American Foreign Policy (3)
- POLS 3500 International Relations of the Middle East (3)
- AIST 3600 American Indian Policy and Tribal Government (3)
- POLS 3600 International Relations of East Asia WE (3)
- POLS 3610 International Organization WE (3)
- POLS 3680 International Political Economy (3)
- POLS 4500 International Conflict and Security (3)
- POLS 4610 International Law and (3)
- POLS 480R Internship WE (1-4)

Graduation Requirements:
1. Complete all political science courses with a grade of "C-" or better.

History and Social Studies Education, B.S.

Requirements
The BS in History and Social Sciences Education prepares teacher candidates to meet the UETS (Utah Effective Teaching Standards) and the InTASC (Interstate Teacher Assessment and Support Consortium) Standards in history and social sciences education. The program is to provide coursework and experiences that will prepare competent, caring, and qualified individuals who are ready to assume the role of teacher and to prepare them for further career choices and advancement. Candidates enter the program at the junior level of their undergraduate education where they have completed general education and pre-program required courses and in so doing have a background in the arts and sciences which prepares them with a general content knowledge base.

Total Program Credits: 121

Matriculation Requirements:
1. ENGL and MATH QL courses must have a grade C or higher.

2. GPA of 3.0 or higher with no grade lower than a C in content area courses.
3. Completion of all General Education requirements and 70% of content area courses.
4. Pass LiveScan Criminal Background Check.

General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>ENGH 1005</td>
<td>Literacies and Composition Across Context CC</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL</td>
<td>6</td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL</td>
<td>3</td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL</td>
<td>5</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL</td>
<td>5</td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>EXSC 1097</td>
<td>Fitness for Life TE</td>
<td>2</td>
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</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>GEOG 1000</td>
<td>Introduction to Physical Geography PP</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Additional Biology or Physical Science</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Humanities Distribution</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fine Arts Distribution</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social/Behavioral Science-Complete one of the</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>POLS 2200</td>
<td>Introduction to Comparative Politics SS (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>POLS 2100</td>
<td>Introduction to International Relations SS (3)</td>
<td></td>
</tr>
</tbody>
</table>

Discipline Core Requirements: 86 Credits

Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1500</td>
<td>World History to 1500 SS</td>
<td>3</td>
</tr>
<tr>
<td>HIST 151G</td>
<td>World History from 1500 to the Present SS GI</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2710</td>
<td>US History since 1877 AS</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3010</td>
<td>The Historian's Craft WE</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3260</td>
<td>History of Utah</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4250</td>
<td>Teaching History in the Secondary Curriculum</td>
<td>3</td>
</tr>
</tbody>
</table>

336 Course Catalog 2023-2024 Utah Valley University
### Professional Education Courses

Must be completed with a grade of B- or higher.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDSC 1010</td>
<td>Introduction to Education</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 3000</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 325G</td>
<td>Equitable Technology Integration GI</td>
<td>2</td>
</tr>
<tr>
<td>EDSP 340G</td>
<td>Exceptional Students GI</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4200</td>
<td>Classroom Management I</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4250</td>
<td>Classroom Management II</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4440</td>
<td>Content Area Literacies</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 445G</td>
<td>Multicultural Instruction ESL GI</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 455G</td>
<td>Secondary Curriculum Instruction and Assessment GI</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 4850</td>
<td>Student Teaching--Secondary</td>
<td>8</td>
</tr>
<tr>
<td>EDSC 4990</td>
<td>Teacher Performance Assessment Project WE</td>
<td>2</td>
</tr>
</tbody>
</table>

Complete two courses from each of the following two areas of study, at least one of which must have a WE designation: 12

#### United States

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 320G</td>
<td>Women in American History to 1870 GI WE (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 321G</td>
<td>Women in American History since 1870 GI (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 322G</td>
<td>History of the American West to 1850 GI WE (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 323G</td>
<td>History of the American West since 1850 GI WE (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 371R</td>
<td>Issues and Topics in American History (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 3730</td>
<td>American Origins to 1790 (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 3731</td>
<td>US History-Early Republic through the Progressive Era (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 3732</td>
<td>U.S. History-Progressive Era to the 21st Century (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 3740</td>
<td>American Revolution (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 3745</td>
<td>Civil War and Reconstruction (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 3800</td>
<td>Environmental History of the United States (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 382G</td>
<td>American Indian History to 1890 GI (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 384G</td>
<td>American Indian History since 1890 GI (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 466G</td>
<td>Legacies and Reckonings in the American West GI WE (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 471R</td>
<td>Special Issues and Topics in American History (3)</td>
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</tr>
<tr>
<td>AIST 327G</td>
<td>Indians of Utah GI (3)</td>
<td></td>
</tr>
<tr>
<td>AIST 3810</td>
<td>Precolumbian America (3)</td>
<td></td>
</tr>
<tr>
<td>AIST 3830</td>
<td>Indians of the Great Plains (3)</td>
<td></td>
</tr>
<tr>
<td>AIST 3850</td>
<td>The Struggle for Self-determination--American Indians 1891 to present (3)</td>
<td></td>
</tr>
</tbody>
</table>

#### World History

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 204G</td>
<td>Colonial Latin America GI (3)</td>
<td></td>
</tr>
</tbody>
</table>

### Social Studies Composite - Please see your Advisor.

Students must receive a C grade or higher in all content area classes.

Complete any two SOC/ANTH courses numbered 1000 or higher

Complete any one ECON course numbered 1000 or higher

Complete any one PSY course numbered 1000 or higher

**Graduation Requirements:**

1. Completion of a minimum of 121 semester credits.
2. Overall GPA of 3.0 (B) or above with no grade lower than a C in major required content courses and no grade lower than a B- in
History and Political Science

Licensure and Methods courses. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched courses.

History and Social Studies Education, B.S.

Careers

1. Identify key aspects of learner development, learning differences and learning environments.
2. Implement the central concepts and tools of inquiry of history and the social sciences to engage learners.
3. Design instruction that reaches the learner in various methods according to professional standards.
4. Demonstrate professional responsibility through professional development and leadership opportunities.

Related Careers

• Education Teachers, Postsecondary
• History Teachers, Postsecondary
• Middle School Teachers, Except Special and Career/Technical Education
• Secondary School Teachers, Except Special and Career/Technical Education

History, B.A.

Requirements

UVU's History Program is dedicated to developing the twenty-first century student. We provide the general student body a broad range of courses that increase global awareness, engagement and informed citizenship, as well as develop critical thinking, writing, and oral expression. In addition, History majors can choose from a large number of in-depth upper division courses that further their content knowledge and expand their abilities to critically analyze past and current events in a variety of regions and nations. In all courses, students and faculty observe the human experience by investigating the diverse historical perspectives of the past and present. History faculty endeavor to teach in ways that foster independent thinking, engage the students with historical conversations and debates, and improve students' ability to communicate in a variety of media. Students who successfully complete our programs will have a valuable set of skills for further study in graduate and professional programs, and careers in public service or private enterprise.

Total Program Credits: 120

General Education Requirements: 36 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (3)</td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
</tr>
</tbody>
</table>

HIST 1500 World History to1500 SS 3
HIST 151G World History from 1500 to the Present SS GI 3
HIST 2700 US History to 1877 AS 3
HIST 2710 US History since 1877 AS 3
HIST 3010 The Historian's Craft WE 3
HIST 4980 Senior Research Thesis Research Component WE 3
HIST 4990 Senior Research Thesis Writing Component 3

Discipline Elective Requirements

European History: complete at least one course in European history 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 3110</td>
<td>Greek History (3)</td>
</tr>
<tr>
<td>HIST 3130</td>
<td>Roman History (3)</td>
</tr>
<tr>
<td>HIST 3150</td>
<td>Medieval Europe (3)</td>
</tr>
<tr>
<td>HIST 3160</td>
<td>Renaissance and Reformation--Europe 1350 to 1600 (3)</td>
</tr>
<tr>
<td>HIST 3170</td>
<td>Absolutism Enlightenment and Revolution--Europe from 1600 to 1815 (3)</td>
</tr>
<tr>
<td>HIST 3180</td>
<td>Nineteenth Century Europe (3)</td>
</tr>
<tr>
<td>HIST 3190</td>
<td>Twentieth Century Europe (3)</td>
</tr>
<tr>
<td>HIST 3320</td>
<td>Modern Britain (3)</td>
</tr>
<tr>
<td>HIST 3340</td>
<td>The French Revolution and Napoleon (3)</td>
</tr>
<tr>
<td>HIST 366G</td>
<td>The History of Modern Russia--1864 to Present GI (3)</td>
</tr>
<tr>
<td>HIST 4180</td>
<td>The Italian Renaissance WE (3)</td>
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</tbody>
</table>
### History and Political Science

#### United States History: complete at least one course in US history

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HIST 320G</td>
<td>Women in American History to 1870 GI WE (3)</td>
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</tr>
<tr>
<td>HIST 321G</td>
<td>Women in American History since 1870 GI (3)</td>
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</tr>
<tr>
<td>HIST 322G</td>
<td>History of the American West to 1850 GI WE (3)</td>
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</tr>
<tr>
<td>HIST 323G</td>
<td>History of the American West since 1850 GI WE (3)</td>
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</tr>
<tr>
<td>HIST 326G</td>
<td>History of Utah (3)</td>
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<tr>
<td>HIST 3730</td>
<td>American Origins to 1790 (3)</td>
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<tr>
<td>HIST 3731</td>
<td>US. History-Early Republic through the Progressive Era (3)</td>
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<tr>
<td>HIST 3732</td>
<td>U.S. History-Progressive Era to the 21st Century (3)</td>
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<tr>
<td>HIST 3740</td>
<td>American Revolution (3)</td>
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<tr>
<td>HIST 3745</td>
<td>Civil War and Reconstruction (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 3800</td>
<td>Environmental History of the United States (3)</td>
<td></td>
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<tr>
<td>HIST 382G</td>
<td>American Indian History to 1890 GI (3)</td>
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</tr>
<tr>
<td>HIST 384G</td>
<td>American Indian History since 1890 GI (3)</td>
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<tr>
<td>HIST 466G</td>
<td>Legacies and Reckonings in the American West GI WE (3)</td>
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<tr>
<td>AIST 327G</td>
<td>Indians of Utah GI (3)</td>
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<tr>
<td>AIST 3810</td>
<td>Precolumbian America (3)</td>
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<tr>
<td>AIST 3830</td>
<td>Indians of the Great Plains (3)</td>
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<tr>
<td>AIST 3850</td>
<td>The Struggle for Self-determination American Indians 1891 to present (3)</td>
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#### World History: Complete at least one course in world history 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HIST 204G</td>
<td>Colonial Latin America GI (3)</td>
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<tr>
<td>HIST 205G</td>
<td>Modern Latin America GI (3)</td>
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<tr>
<td>HIST 3030</td>
<td>Introduction to African History (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 330G</td>
<td>Mediterranean World 1500-1800 GI (3)</td>
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</tr>
<tr>
<td>HIST 3540</td>
<td>History of South Africa (3)</td>
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<tr>
<td>HIST 421G</td>
<td>The Global Cold War GI (3)</td>
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<tr>
<td>HIST 430G</td>
<td>Violence and Social Conflict in Latin America GI (3)</td>
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<tr>
<td>HIST 4310</td>
<td>Violence and War in the Ancient World WE (3)</td>
<td></td>
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<tr>
<td>HIST 461G</td>
<td>Peoples of the Atlantic World 1450-1800 GI (3)</td>
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</tr>
<tr>
<td>HIST 463G</td>
<td>Missions and Conversion in the Early Americas GI (3)</td>
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#### Special Topics: complete at least one course in a special topic 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HIST 3020</td>
<td>Public and Digital History (3)</td>
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<tr>
<td>HIST 320R</td>
<td>Issues and Topics in Global History (3)</td>
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</tr>
<tr>
<td>HIST 3440</td>
<td>The History of World War I (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 345G</td>
<td>The History of World War II GI (3)</td>
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</table>

### World History: Complete at least one course in world history

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>HIST 374R</td>
<td>Issues and Topics in American History (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 4130</td>
<td>Anti-Semitism and the Holocaust (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 4140</td>
<td>Genocide in the Twentieth Century (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 420R</td>
<td>Issues and Topics in Global History (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 4320</td>
<td>History of Scientific Thought (3)</td>
<td></td>
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<tr>
<td>HIST 471R</td>
<td>Special Issues and Topics in American History (3)</td>
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<tr>
<td>HIST 482R</td>
<td>Public History Internship (2-9)</td>
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<tr>
<td>HIST 491R</td>
<td>Directed Readings (2-4)</td>
<td></td>
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</tbody>
</table>

#### Elective Requirements: Complete any two additional upper division History courses 6

#### Graduation Requirements:

1. Completion of a minimum of 120 credits, 40 of which must be at the 3000 level or higher.
2. Minimum UVU GPA of 2.0 upon graduation, with no HIST course grade below a C-.
3. Completion of four semesters of one foreign language.
4. Comply with the catalog's rule on maximum number of years in the program.
5. Minimum of 30 credits must be taken at UVU.
6. Successful completion of at least one Global/Intercultural course.
7. Successful completion of at least two Writing Enriched courses.

### Notes:

- Students should frequently consult with his/her advisor on program requirements.

#### History, B.A.

**Careers**

1. Demonstrate critical reading, analytical thinking, advanced writing, and oral presentation skills.
2. Demonstrate proficiency with multiple historical methodologies.
3. Demonstrate competency in identifying various historical schools of thought (historiography).
4. Conduct and present research in the discipline using primary documents.

#### Related Careers

- Managers, All Other
- Historians
- History Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education

### Political Science - American Government Emphasis, B.A.

**Requirements**

Political science enjoys a central position among the social sciences. Aristotle characterized politics as the “queen of the sciences.” It is a broad discipline that encompasses philosophical, historical and analytical studies of governments, politics and policies. Political science students learn not only the concepts, theories and methods associated with the discipline, but also gain the cognitive and presentational skills required of tomorrow’s public and private leaders. At its core, politics is
History and Political Science

about building and maintaining communities at the local, state, national and international levels that enable citizens to live enriching and fulfilling lives. Political science students develop not only an understanding of those communities, but also the ability to influence them.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>36 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC (3)</td>
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</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Context CC (5)</td>
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</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following: (3)
- MAT 1030 Quantitative Reasoning QL (3) (recommended)
- MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6) (recommended)
- STAT 1040 Introduction to Statistics QL (3)
- STAT 1045 Introduction to Statistics with Algebra QL (5)
- MATH 1050 College Algebra QL (4)
- MATH 1055 College Algebra with Preliminaries QL (5)
- MATH 1090 College Algebra for Business QL (3)

Complete one of the following: (3)
- HIST 1700 American Civilization AS (3)
- HIST 2700 US History to 1877 AS (3)
- and HIST 2710 US History since 1877 AS (3)
- HIST 1740 US Economic History AS (3)
- POLS 1000 American Heritage SS (3)

Complete the following:
- PHIL 2050 Ethics and Values IH (3)
- HLTH 1100 Personal Health and Wellness TE (2)
- or EXSC 1097 Fitness for Life TE (2)

Distribution Courses:
- Biology (3)
- Physical Science (3)
- Additional Biology or Physical Science (3)
- Humanities (fulfilled by completing any foreign language 202G/2020 course ) (4)
- Fine Arts (3)
- Social/Behavioral Science (3)

Discipline Core Requirements: (18 Credits)
- POLS 1100 American National Government AS (3)
- POLS 2100 Introduction to International Relations SS (3)
- POLS 2200 Introduction to Comparative Politics SS (3)
- POLS 230G Introduction to Political Theory GI (3)
- POLS 3000 Political Analysis (3)
- POLS 4990 Senior Seminar WE (3)
- or POLS 480R Internship WE (3)

or PJST 4900 Peace and Justice Studies Capstone WE (3)

Elective Requirements: (36 Credits)
- Foreign Language Requirement: Complete 1010,1020, 2010, and 202G (one language) (12)
- Any courses numbered 1000 or higher. (9 credit hours must be upper division (3000-4000 level courses)) (24)

Emphasis Requirements: (30 Credits)
- Complete 18 credits from the followings courses (at least one must be Writing Enriched): (18 Credits)
  - AIST 4600 Contemporary American Indian Political and Social Issues (3)
  - CNST 3870 Constitutional History to Plessy 1896 (3)
  - CNST 3880 Constitutional History Since Plessy 1896 (3)
  - CNST 4720 Foundations of American Constitutionalism (3)
  - CNST 4790 US Constitution (3)
  - PJST 4300 Race Gender and Class in Peace and Justice (3)
  - POLS 3030 State and Local Government (3)
  - POLS 3120 Political Parties (3)
  - POLS 3150 US Presidency (3)
  - POLS 3180 Public Opinion and Political Behavior (3)
  - POLS 3160 Campaigns and Elections (undefined)
  - POLS 3170 Political Psychology WE (3)
  - POLS 3200 US Congress (3)
  - POLS 3220 Interest Groups (3)
  - POLS 3310 Introduction to Public Policy WE (3)
  - POLS 3350 Health Politics and Policy (3)
  - POLS 3480 Race in Politics (3)
  - POLS 420R Issues and Topics in Political Science (3)
  - POLS 490R Independent Study (1-4)
  - PHIL 3700 Social and Political Philosophy (3)
  - SOC 3460 Political Sociology (3)

Complete any 12 elective credits (at least 4 credits must be upper division) (12 Credits)

Graduation Requirements:
1. Completion of a minimum of 120 or more semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above, with no POLS course grade lower than a C-.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Completion of 16 credit hours of coursework from one language to include 1010, 1020, 2010, and 202G/2020 levels or transferred equivalents.
6. Successful completion of at least one Global/Intercultural course.
Political Science - American Government Emphasis, B.A.

**Careers**

1. Demonstrate critical reading, analytical thinking, advanced writing, and oral presentation skills.
2. Demonstrate competency in identifying and comparing various types of political models, political theories, and academic literature.
3. Acquire civic knowledge and understand how it is important for civic engagement.

**Related Careers**
- Managers, All Other
- Political Scientists
- Political Science Teachers, Postsecondary

Political Science - American Government Emphasis, B.S.

**Requirements**

Political science enjoys a central position among the social sciences. Aristotle characterized politics as the “queen of the sciences.” It is a broad discipline that encompasses philosophical, historical and analytical studies of governments, politics and policies. Political science students learn not only the concepts, theories and methods associated with the discipline, but also gain the cognitive and presentational skills required of tomorrow’s public and private leaders. At its core, politics is about building and maintaining communities at the local, state, national and international levels that enable citizens to live enriching and fulfilling lives. Political science students develop not only an understanding of those communities, but also the ability to influence them.

**Total Program Credits: 120**

**General Education Requirements:** 35 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENGH 1005</td>
<td>Literacies and Composition Across Context CC (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
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</table>

Complete one of the following:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3) (recommended)</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6) (recommended)</td>
<td>3</td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (3)</td>
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<td>3</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4) (recommended for business, Education, Science, and Health Professions majors)</td>
<td>3</td>
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<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td>3</td>
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<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
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</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td>3</td>
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Complete the following:

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<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
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<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
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</tr>
<tr>
<td>or</td>
<td>EXSC 1097</td>
<td>Fitness for Life TE</td>
</tr>
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</table>

**Distribution Courses:**

- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities 3
- Fine Arts 3
- Social/Behavioral Science 3

**Discipline Core Requirements:** 30 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credit Hours</th>
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<tbody>
<tr>
<td>POLS 1100</td>
<td>American National Government AS</td>
<td>3</td>
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<tr>
<td>POLS 2100</td>
<td>Introduction to International Relations SS</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2200</td>
<td>Introduction to Comparative Politics SS</td>
<td>3</td>
</tr>
<tr>
<td>POLS 230G</td>
<td>Introduction to Political Theory GI</td>
<td>3</td>
</tr>
<tr>
<td>POLS 3000</td>
<td>Political Analysis</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4990</td>
<td>Senior Seminar WE</td>
<td>3</td>
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<tr>
<td>or</td>
<td>POLS 480R</td>
<td>Internship WE</td>
</tr>
<tr>
<td>or</td>
<td>PJST 4900</td>
<td>Peace and Justice Studies Capstone WE (3)</td>
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</table>

**Quantitative Requirement**

- Complete 9 credits from the following courses:
  - POLS 3010 | Political Analysis II | 3 |

**Elective Requirements:** 25 Credits

- Any courses numbered 1000 or higher. (3 credit hours must be upper division (3000-4000 level courses)) 25

**Emphasis Requirements:** 30 Credits

- Complete 18 credits from the following courses (at least one must be Writing Enriched):
  - AIST 4600 | Contemporary American Indian Political and Social Issues (3) |
  - CNST 3870 | Constitutional History to Plessy 1896 (3) |
  - CNST 3880 | Constitutional History Since Plessy 1896 (3) |
  - CNST 4720 | Foundations of American Constitutionalism (3) |
  - CNST 4790 | US Constitution (3) |
  - PJST 4300 | Race Gender and Class in Peace and Justice (3) |
  - POLS 3030 | State and Local Government (3) |
History and Political Science

POLS 3040  Survey Research and Design Methods (3)
POLS 3120  Political Parties (3)
POLS 3150  US Presidency (3)
POLS 3160  Campaigns and Elections (3)
POLS 3170  Political Psychology WE (3)
POLS 3180  Public Opinion and Political Behavior (3)
POLS 3200  US Congress (3)
POLS 3220  Interest Groups (3)
POLS 3310  Introduction to Public Policy WE (3)
POLS 3350  Health Politics and Policy (3)
POLS 3480  Race in Politics (3)
POLS 420R  Issues and Topics in Political Science (3)
POLS 490R  Political Psychology WE (3)

Complete any 12 elective credits (4 credits must be upper division) 12

Graduation Requirements:
1. Completion of a minimum of 120 or more semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above, with no POLS course grade below C-.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

Political Science - American Government Emphasis, B.S.

Careers
1. Demonstrate critical reading, analytical thinking, advanced writing, and oral presentation skills.
2. Demonstrate competency in identifying and comparing various types of political models, political theories, and academic literature.
3. Acquire civic knowledge and understand how it is important for civic engagement.

Related Careers
- Managers, All Other
- Political Scientists
- Political Science Teachers, Postsecondary

Political Science - Global Politics Emphasis, B.A.

Requirements
Political science enjoys a central position among the social sciences. Aristotle characterized politics as the "queen of the sciences." It is a broad discipline that encompasses philosophical, historical and analytical studies of governments, politics and policies. Political science students learn not only the concepts, theories and methods associated with the discipline, but also gain the cognitive and presentational skills required of tomorrow’s public and private leaders. At its core, politics is about building and maintaining communities at the local, state, national and international levels that enable citizens to live enriching and fulfilling lives. Political science students develop not only an understanding of those communities, but also the ability to influence them.

Total Program Credits: 120

General Education Requirements: 36 Credits

<table>
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<tr>
<th>Course Code</th>
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<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<tr>
<td>Complete one of the following:</td>
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<tr>
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<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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</tr>
<tr>
<td>Complete the following:</td>
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<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
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<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
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<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
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Distribution Courses:

<table>
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<th>Subject</th>
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<tbody>
<tr>
<td>Biology</td>
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<td>Physical Science</td>
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<tr>
<td>Humanities (fulfilled by completing any foreign language 202G/2020 course)</td>
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<td>Social/Behavioral Science</td>
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Discipline Core Requirements: 18 Credits

<table>
<thead>
<tr>
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<tr>
<td>POLS 1100</td>
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<tr>
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<td>Introduction to International Relations SS</td>
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<td>3</td>
</tr>
<tr>
<td>POLS 230G</td>
<td>Introduction to Political Theory GI</td>
<td>3</td>
</tr>
<tr>
<td>POLS 3000</td>
<td>Political Analysis</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4990</td>
<td>Senior Seminar WE (3)</td>
<td></td>
</tr>
<tr>
<td>or POLS 480R</td>
<td>Internship WE</td>
<td>3</td>
</tr>
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</table>

Course Catalog 2023-2024  
Utah Valley University
**Political Science - Global Politics Emphasis, B.A.**

**Careers**

1. Demonstrate critical reading, analytical thinking, advanced writing, and oral presentation skills.
2. Demonstrate competency in identifying and comparing various types of political models, political theories, and academic literature.
3. Acquire civic knowledge and understand how it is important for civic engagement.

**Related Careers**

- Managers, All Other
- Political Scientists
- Political Science Teachers, Postsecondary

**Political Science - Global Politics Emphasis, B.S.**

**Requirements**

Political science enjoys a central position among the social sciences. Aristotle characterized politics as the “queen of the sciences.” It is a broad discipline that encompasses philosophical, historical and analytical studies of governments, politics and policies. Political science students learn not only the concepts, theories and methods associated with the discipline, but also gain the cognitive and presentational skills required of tomorrow’s public and private leaders. At its core, politics is about building and maintaining communities at the local, state, national and international levels that enable citizens to live enriching and fulfilling lives. Political science students develop not only an understanding of those communities, but also the ability to influence them.

**Total Program Credits: 120**

**Graduation Requirements:**

1. Completion of a minimum of 120 or more semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above, with no POLS course grade lower than a C-.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Completion of 16 credit hours of coursework from one language to include 1010, 1020, 2010, and 202G/2020 levels or transferred equivalents.
6. Successful completion of at least one Global/Intercultural course.

**Elective Requirements:**

- 36 Credits

- Foreign Language Requirement: Complete 1010, 1020, 2010, and 202G (one language)
- 12

- Any courses numbered 1000 or higher. (9 credit hours must be upper division (3000-4000 level courses))
- 24

**Emphasis Requirements:**

30 Credits

- Complete 18 credits from the followings courses: 18
  - HIST 205G Modern Latin America GI (3)
  - POLS 3650 Model United Nations (3)
  - POLS 3100 Survey of International Terrorism (3)
  - POLS 3210 World Diplomacy (3)
  - POLS 3400 American Foreign Policy (3)
  - POLS 3410 Globalization and Sustainable Development (3)
  - POLS 3420 Islam in World Affairs (3)
  - POLS 3500 International Relations of the Middle East (3)
  - POLS 3510 Post Soviet Politics WE (3)
  - POLS 352G Chinese Politics GI (3)
  - POLS 353G Asian Politics GI (3)
  - POLS 356G Comparative Politics of Central Asia GI (3)
  - POLS 3600 International Relations of East Asia WE (3)
  - POLS 3610 International Organization WE (3)
  - POLS 3630 Sustainable Mountain Development (3)
  - POLS 362G Modern Chinese Political Economy GI (3)
  - POLS 3620 Latin American Politics (3)
  - POLS 3640 United Nations Sustainable Development Goals (3)
  - POLS 3680 International Political Economy (3)
  - POLS 420R Issues and Topics in Political Science (3)
  - POLS 4500 International Conflict and Security (3)
  - POLS 4610 International Law (3)

- Complete any 12 elective credits (at least 4 credits must be upper division)
- 12

**General Education Requirements:**

35 Credits

- ENGL 1010 Introduction to Academic Writing CC (3)
- or ENGH 1005 Literacies and Composition Across Context CC (5)
- ENGL 2010 Intermediate Academic Writing CC (3)

- Complete one of the following:
- 3
  - MAT 1030 Quantitative Reasoning QL (3) (recommended)
  - MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6) (recommended)
  - STAT 1040 Introduction to Statistics QL (3)
  - STAT 1045 Introduction to Statistics with Algebra QL (5)
  - MATH 1050 College Algebra QL (4)
  - MATH 1055 College Algebra with Preliminaries QL (5)

- Complete one of the following:
- 3
  - HIST 1700 American Civilization AS (3)
  - HIST 2700 US History to 1877 AS (3)
  - and HIST 2710 US History since 1877 AS (3)
  - HIST 1740 US Economic History AS (3)
  - POLS 1000 American Heritage SS (3)

- Complete the following:
- 3
  - PHIL 2050 Ethics and Values IH (3)
  - HLTH 1100 Personal Health and Wellness TE (2)
### Distribution Courses:
- Biology: 3 credits
- Physical Science: 3 credits
- Additional Biology or Physical Science: 3 credits
- Humanities: 3 credits
- Fine Arts: 3 credits
- Social/Behavioral Science: 3 credits

### Discipline Core Requirements:
- **POLS 1100** American National Government AS (3)
- **POLS 2100** Introduction to International Relations SS (3)
- **POLS 2200** Introduction to Comparative Politics SS (3)
- **POLS 230G** Introduction to Political Theory GI (3)
- **POLS 3000** Political Analysis (3)
- **POLS 4990** Senior Seminar WE (3)

### Quantitative Requirement
- **POLS 3010** Political Analysis II (3)

### Complete 9 credits from the following courses:
- **POLS 3020** Public Program Analysis (3)
- **POLS 3040** Survey Research and Design Methods (3)
- **POLS 3050** Experimental Methods in Political Science (3)
- **POLS 3060** Qualitative Analysis (3)
- **POLS 3070** Policy Analysis (3)

### Elective Requirements:
- 25 Credits

### Emphasis Requirements:
- 30 Credits

### Graduation Requirements:
1. Completion of a minimum of 120 or more semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above, with no POLS course grade below C-.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

### Political Science - Global Politics Emphasis, B.S.

**Careers**
- Managers, All Other
- Political Scientists
- Political Science Teachers, Postsecondary

### Related Careers
- Managers, All Other
- Political Scientists
- Political Science Teachers, Postsecondary

### Political Science - Indian Affairs Administration Emphasis, B.A.

**Requirements**
Political science enjoys a central position among the social sciences. Aristotle characterized politics as the "queen of the sciences." It is a broad discipline that encompasses philosophical, historical and analytical studies of governments, politics and policies. Political science students learn not only the concepts, theories and methods associated with the discipline, but also gain the cognitive and presentational skills required of tomorrow’s public and private leaders. At its core, politics is about building and maintaining communities at the local, state, national and international levels that enable citizens to live enriching and fulfilling lives. Political science students develop not only an understanding of those communities, but also the ability to influence them.
### General Education Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENGH 1005</td>
<td>Literacies and Composition Across Context CC (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
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</table>

Complete one of the following:

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<tr>
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<td></td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6) (recommended)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040</td>
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<td></td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
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</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra with Preliminaries QL (5)</td>
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Complete one of the following:

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>and</td>
<td>HIST 2710</td>
<td>US History since 1877 AS (3)</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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<tr>
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<tbody>
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<tr>
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<tr>
<td>or</td>
<td>EXSC 1097</td>
<td>Fitness for Life TE</td>
</tr>
</tbody>
</table>

Distribution Courses:

- **Biology** 3 credits
- **Physical Science** 3 credits
- **Additional Biology or Physical Science** 3 credits
- **Humanities (fulfilled by completing any foreign language 202G/2020 course)** 4 credits
- **Fine Arts** 3 credits
- **Social/Behavioral Science** 3 credits

### Discipline Core Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1100</td>
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<td>Introduction to Political Theory SS</td>
<td>3</td>
</tr>
<tr>
<td>POLS 3000</td>
<td>Political Analysis</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4990</td>
<td>Senior Seminar WE</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>POLS 480R</td>
<td>Internship WE</td>
</tr>
<tr>
<td>or</td>
<td>PJST 4900</td>
<td>Peace and Justice Studies Capstone WE (3)</td>
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</table>

### Elective Requirements:

<table>
<thead>
<tr>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>36</td>
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### Emphasis Requirements:

Complete 18 credits from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AIST 180G</td>
<td>Introduction to American Indian Studies SS GI(3)</td>
<td></td>
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<tr>
<td>AIST 3360</td>
<td>American Indian Education Policy (3)</td>
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<td>AIST 3590</td>
<td>American Indian Law (3)</td>
<td></td>
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<tr>
<td>AIST 3600</td>
<td>American Indian Policy and Tribal Government (3)</td>
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<tr>
<td>AIST 3850</td>
<td>The Struggle for Self-determination American Indians 1891 to present (3)</td>
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<td>AIST 4600</td>
<td>Contemporary American Indian Political and Social Issues (3)</td>
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<td>AIST 490R</td>
<td>Special Topics in American Indian Studies (3)</td>
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<td>CNST 4795</td>
<td>Civil Rights and Civil Liberties (3)</td>
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<tr>
<td>POLS 3030</td>
<td>State and Local Government (3)</td>
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<tr>
<td>POLS 3320</td>
<td>Nonprofits and The Public Sector (3)</td>
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<td>POLS 3350</td>
<td>Health Politics and Policy (3)</td>
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</tr>
<tr>
<td>POLS 3480</td>
<td>Race in Politics (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete any 12 elective credits (at least 4 credits must be upper division, and at least 3 credits must be a POLS Writing Enriched course) 12 credits

### Graduation Requirements:

1. Completion of a minimum of 120 or more semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above, with no POLS course grade lower than a C-.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Completion of at least one Global/Intercultural course.
6. Successful completion of at least one Global/Intercultural course.

### Political Science - Indian Affairs Administration Emphasis, B.A.

#### Careers

1. Demonstrate critical reading, analytical thinking, advanced writing, and oral presentation skills.
2. Demonstrate competency in identifying and comparing various types of political models, political theories, and academic literature.
3. Acquire civic knowledge and understand how it is important for civic engagement.

### Related Careers

- Managers, All Other
- Political Scientists
- Political Science Teachers, Postsecondary
History and Political Science

Political Science - Indian Affairs Administration Emphasis, B.S.

Requirements

Political science enjoys a central position among the social sciences. Aristotle characterized politics as the "queen of the sciences." It is a broad discipline that encompasses philosophical, historical and analytical studies of governments, politics and policies. Political science students learn not only the concepts, theories and methods associated with the discipline, but also gain the cognitive and presentational skills required of tomorrow's public and private leaders. At its core, politics is about building and maintaining communities at the local, state, national and international levels that enable citizens to live enriching and fulfilling lives. Political science students develop not only an understanding of those communities, but also the ability to influence them.

Total Program Credits: 120

General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<tr>
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<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4) (recommended for business, Education, Science, and Health Professions majors)</td>
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Complete the following: 9

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<thead>
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<th>Course</th>
<th>Title</th>
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<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
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<td>Personal Health and Wellness TE (2)</td>
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Distribution Courses:

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<tr>
<th>Category</th>
<th>Credits</th>
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<tbody>
<tr>
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</table>

Discipline Core Requirements: 30 Credits

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>POLS 1100</td>
<td>American National Government AS</td>
<td>3</td>
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</table>

POLS 2100 | Introduction to International Relations SS |

POLS 2200 | Introduction to Comparative Politics SS |

POLS 230G | Introduction to Political Theory GI |

POLS 3000 | Political Analysis |

POLS 4990 | Senior Seminar WE (3) |

or | POLS 480R | Internship WE | 3 |

or | PJST 4900 | Peace and Justice Studies Capstone (3) |

Quantitative Requirement

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
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Complete 9 credits from the following courses: 9

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<th>Course</th>
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<tbody>
<tr>
<td>POLS 3020</td>
<td>Public Program Analysis (3)</td>
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<tr>
<td>POLS 3040</td>
<td>Survey Research and Design Methods (3)</td>
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<td>POLS 3050</td>
<td>Experimental Methods in Political Science (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 3060</td>
<td>Qualitative Analysis (3)</td>
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<tr>
<td>POLS 3070</td>
<td>Policy Analysis (3)</td>
<td></td>
</tr>
</tbody>
</table>

Elective Requirements: 25 Credits

Any courses numbered 1000 or higher. (3 credit hours must be upper division (3000-4000 level courses)) 25

Emphasis Requirements: 30 Credits

Complete 18 credits from the followings courses: 18

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>AIST 180G</td>
<td>Introduction to American Indian Studies SS GI (3)</td>
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<td>AIST 3360</td>
<td>American Indian Education Policy (3)</td>
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<td>AIST 3590</td>
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<td>Race in Politics (3)</td>
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Complete any 12 elective credits (at least 4 credits must be upper division, and at least 3 credits must be a POLS Writing Enriched course) 12

Graduation Requirements:

1. Completion of a minimum of 120 or more semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above, with no POLS course grade lower than a C-. 

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3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

Political Science - Indian Affairs Administration Emphasis, B.S.

Careers
1. Demonstrate critical reading, analytical thinking, advanced writing, and oral presentation skills.
2. Demonstrate competency in identifying and comparing various types of political models, political theories, and academic literature.
3. Acquire civic knowledge and understand how it is important for civic engagement.

Related Careers
• Managers, All Other
• Political Scientists
• Political Science Teachers, Postsecondary

Political Science - Peace and Justice Studies Emphasis, B.A.

Requirements
Political science enjoys a central position among the social sciences. Aristotle characterized politics as the “queen of the sciences.” It is a broad discipline that encompasses philosophical, historical and analytical studies of governments, politics and policies. Political science students learn not only the concepts, theories and methods associated with the discipline, but also gain the cognitive and presentational skills required of tomorrow’s public and private leaders. At its core, politics is about building and maintaining communities at the local, state, national and international levels that enable citizens to live enriching and fulfilling lives. Political science students develop not only an understanding of those communities, but also the ability to influence them.

Total Program Credits: 120

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Complete one of the following: 3

| MAT 1030                        | Quantitative Reasoning QL (3) (recommended) |
| MAT 1035                        | Quantitative Reasoning with Integrated Algebra QL (6) (recommended) |
| STAT 1040                       | Introduction to Statistics QL (3) |
| STAT 1045                       | Introduction to Statistics with Algebra QL (5) |
| MATH 1050                       | College Algebra QL (4) |
| MATH 1055                       | College Algebra with Preliminaries QL (5) |
| MATH 1080                       | College Algebra for Business QL (3) |

Complete one of the following: 3

| HIST 1700                       | American Civilization AS (3) |
| HIST 2700                       | US History to 1877 AS (3) |

and HIST 2710 US History since 1877 AS (3)
HIST 1740 US Economic History AS (3)
POLS 1000 American Heritage SS (3)

Complete the following:

| PHIL 2050                      | Ethics and Values IH | 3 |
| HLTH 1100                      | Personal Health and Wellness TE (2) |
| or EXSC 1097                   | Fitness for Life TE | 2 |

Distribution Courses:

| Biology                       | 3 |
| Physical Science              | 3 |
| Additional Biology or Physical Science | 3 |
| Humanities (fulfilled by completing any foreign language 202G/2020 course) | 4 |
| Fine Arts                     | 3 |
| Social/Behavioral Science     | 3 |

Discipline Core Requirements: 18 Credits

| POLS 1100                      | American National Government AS | 3 |
| POLS 2100                      | Introduction to International Relations SS | 3 |
| POLS 2200                      | Introduction to Comparative Politics SS | 3 |
| POLS 230G                      | Introduction to Political Theory GI | 3 |
| POLS 3000                      | Political Analysis | 3 |
| POLS 4990                      | Senior Seminar WE (3) |
| or POLS 480R                   | Internship WE | 3 |
| or PJST 4900                   | Peace and Justice Studies Capstone WE (3) |

Elective Requirements: 36 Credits

Foreign Language Requirement: Complete 1010, 1020, 2010, and 202G (one language) | 12 |

Any courses numbered 1000 or higher (9 credit hours must be upper division (3000-4000 level courses)) | 24 |

Emphasis Requirements: 30 Credits

| PJST 3000                      | Introduction to Peace and Justice Studies WE | 3 |
| PJST 3400                      | Conflict Transformation Resolution and Sustainable Peace | 3 |

Complete 12 credits from the following courses: 12

| CNST 4795                      | Civil Rights and Civil Liberties (3) |
| PJST 3020                      | The Ethics of War and Peace (3) |
| PJST 3030                      | The Scientific Study of War and Peace (3) |
| PJST 3040                      | Peace in Historical Context (3) |
| PJST 3100                      | Introduction to Human Security (3) |
| PJST 3200                      | Global Poverty Facts Causes and Solutions (3) |
| PJST 3300                      | Community Development (3) |
| PJST 4200                      | Advanced Poverty Studies: Global Problems and Policies (3) |
History and Political Science

PJST 4300 Race Gender and Class in Peace and Justice (3)
PJST 475R Issues in Peace and Justice Studies (3)
POLS 3100 Survey of International Terrorism (3)
POLS 3650 Model United Nations (3)
POLS 4500 International Conflict and Security (3)
SOC 3460 Political Sociology (3)

Complete any 12 elective credits (at least 4 credits must be upper division, and at least 3 credits must be a POLS Writing Enriched course) 12

Graduation Requirements:
1. Completion of a minimum of 120 or more semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above, with no POLS course grade lower than a C-.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Completion of 16 credit hours of coursework from one language to include 1010, 1020, 2010, and 202G/2020 levels or transferred equivalents.
6. Successful completion of at least one Global/Intercultural course.

Political Science - Peace and Justice Studies Emphasis, B.A.

1. Demonstrate critical reading, analytical thinking, advanced writing, and oral presentation skills.
2. Demonstrate competency in identifying and comparing various types of political models, political theories, and academic literature.
3. Acquire civic knowledge and understand how it is important for civic engagement.

Related Careers
- Managers, All Other
- Political Scientists
- Political Science Teachers, Postsecondary

Political Science - Peace and Justice Studies Emphasis, B.S.

Requirements
Political science enjoys a central position among the social sciences. Aristotle characterized politics as the “queen of the sciences.” It is a broad discipline that encompasses philosophical, historical and analytical studies of governments, policies and politics. Political science students learn not only the concepts, theories and methods associated with the discipline, but also gain the cognitive and presentional skills required of tomorrow’s public and private leaders. At its core, politics is about building and maintaining communities at the local, state, national and international levels that enable citizens to live enriching and fulfilling lives. Political science students develop not only an understanding of those communities, but also the ability to influence them.

Total Program Credits: 120

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<tbody>
<tr>
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or | ENGH 1005 | Literacies and Composition Across Contexts CC | 5 |
| ENGL 2010 | Intermediate Academic Writing CC | 3 |

Complete one of the following:

| MAT 1030 | Quantitative Reasoning QL (3) (recommended) |
| MAT 1035 | Quantitative Reasoning with Integrated Algebra QL (6) (recommended) |
| STAT 1040 | Introduction to Statistics QL (3) |
| STAT 1045 | Introduction to Statistics with Algebra QL (5) |
| MATH 1050 | College Algebra QL (4) (recommended for business, Education, Science, and Health Professions majors) |
| MATH 1055 | College Algebra with Preliminaries QL (5) |

Complete the following:

| PHIL 2050 | Ethics and Values IH |
| HLTH 1100 | Personal Health and Wellness TE (2) |
| or | EXSC 1097 | Fitness for Life TE | 2 |

Distribution Courses:
- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities 3
- Fine Arts 3
- Social/Behavioral Science 3

Discipline Core Requirements: 30 Credits

| POLS 1100 | American National Government AS (3) |
| POLS 2100 | Introduction to International Relations SS |
| POLS 2200 | Introduction to Comparative Politics SS |
| POLS 230G | Introduction to Political Theory GI |
| POLS 3000 | Political Analysis |
| POLS 4990 | Senior Seminar WE (3) |
| or | POLS 480R | Internship WE |
| or | PJST 4900 | Peace and Justice Studies Capstone WE (3) |

Quantitative Requirement

| POLS 3010 | Political Analysis II (3) |

Complete 9 credits from the following courses: 9

| POLS 3020 | Public Program Analysis (3) |
History and Political Science

POLS 3040  Survey Research and Design Methods (3)
POLS 3050  Experimental Methods in Political Science (3)
POLS 3060  Qualitative Analysis (3)
POLS 3070  Policy Analysis (3)

Elective Requirements:  25 Credits
Any courses numbered 1000 or higher. (3 credit hours must be upper division (3000-4000 level courses))  25

Emphasis Requirements:  30 Credits
PJST 3000  Introduction to Peace and Justice Studies WE  3
PJST 3400  Conflict Transformation Resolution and Sustainable Peace  3

Complete 12 credits from the following courses:  12
CNST 4795  Civil Rights and Civil Liberties (3)
PJST 3020  The Ethics of War and Peace (3)
PJST 3040  Peace in Historical Context (3)
PJST 3100  Introduction to Human Security (3)
PJST 3200  Global Poverty Facts Causes and Solutions (3)
PJST 3300  Community Development (3)
PJST 4200  Advanced Poverty Studies: Global Problems and Policies (3)
PJST 4300  Race Gender and Class in Peace and Justice (3)
PJST 475R  Issues in Peace and Justice Studies (3)
POLS 3100  Survey of International Terrorism (3)
POLS 3650  Model United Nations (3)
POLS 4500  International Conflict and Security (3)
SOC 3460  Political Sociology (3)

Complete any 12 elective credits (at least 4 credits must be upper division, and at least 3 credits must be a POLS Writing Enriched course)  12

Graduation Requirements:
1. Completion of a minimum of 120 or more semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above, with no POLS course grade below C-
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
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Political Science - Peace and Justice Studies Emphasis, B.S.

Careers
1. Demonstrate critical reading, analytical thinking, advanced writing, and oral presentation skills.

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Related Careers
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Political Science - Public Administration and Public Policy Emphasis, B.A.

Requirements
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Total Program Credits: 120

General Education Requirements:  36 Credits
ENGL 1010  Introduction to Academic Writing CC  3
or ENGH 1005  Literacies and Composition Across Context CC (5)
ENGL 2010  Intermediate Academic Writing CC  3

Complete one of the following:  3
MAT 1030  Quantitative Reasoning QL (3) (recommended)
MAT 1035  Quantitative Reasoning with Integrated Algebra QL (6) (recommended)
STAT 1040  Introduction to Statistics QL (3)
STAT 1045  Introduction to Statistics with Algebra QL (5)
MATH 1050  College Algebra QL (4)
MATH 1055  College Algebra with Preliminaries QL (5)
MATH 1090  College Algebra for Business QL (3)

Complete the following:  3
HIST 1700  American Civilization AS (3)
HIST 2700  US History to 1877 AS (3)
and HIST 2710  US History since 1877 AS (3)
HIST 1740  US Economic History AS (3)
POLS 1000  American Heritage SS (3)

Complete the following:
PHIL 2050  Ethics and Values IH  3
HLTH 1100  Personal Health and Wellness TE (2)

or EXSC 1097  Fitness for Life TE  2

Distribution Courses:
History and Political Science

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Elective Requirements: 36 Credits

| Foreign Language Requirement: Complete 1010, 1020, 2010, and 202G (one language) 12 |
| Any courses numbered 1000 or higher, (9 credit hours must be upper division (3000-4000 level courses)) 24 |

Emphasis Requirements: 30 Credits

| **POLS 3300** Introduction to Public Administration 3 |
| **POLS 3310** Introduction to Public Policy WE 3 |

Complete 12 credits from the followings courses: 12

| **AIST 3590** American Indian Law (3) |
| **AIST 3600** American Indian Policy and Tribal Government (3) |
| **ECON 4150** Public Finance (3) |
| **HR 3430** Introduction to Human Resource Management (3) |
| **POLS 3020** Public Program Analysis (3) |
| **POLS 3030** State and Local Government (3) |
| **POLS 3070** Policy Analysis (3) |
| **POLS 3320** Nonprofits and The Public Sector (3) |
| **POLS 3330** Environment Politics and Policy (3) |
| **POLS 3340** Public Innovation (3) |
| **POLS 3350** Health Politics and Policy (3) |
| **POLS 3360** The Politics of Economic Inequality (3) |
| **POLS 3370** Leading Cities (3) |
| **POLS 3380** Local Economic Development (3) |
| **POLS 3390** Urban Planning (3) |
| **POLS 420R** Issues and Topics in Political Science (3) |
| **POLS 490R** Independent Study (1-4) |

Graduation Requirements:

1. Completion of a minimum of 120 or more semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above, with no POLS course grade lower than a C-.
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Political Science - Public Administration and Public Policy Emphasis, B.A.

Careers

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Related Careers

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Total Program Credits: 120

General Education Requirements: 35 Credits

| ENGL 1010 | Introduction to Academic Writing CC | 3 |
| or ENGH 1005 | Literacies and Composition Across Context CC (5) |
| ENGL 2010 | Intermediate Academic Writing CC | 3 |

Complete one of the following: 3

| MAT 1030 | Quantitative Reasoning QL (3) (recommended) |
| MAT 1035 | Quantitative Reasoning with Integrated Algebra QL (6) (recommended) |
| STAT 1040 | Introduction to Statistics QL (3) |
**History and Political Science**

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Complete one of the following: 3

- **HIST 1700** American Civilization AS (3)
- **HIST 2700** US History to 1877 AS (3)
- **HIST 2710** US History since 1877 AS (3)
- **HIST 1740** US Economic History AS (3)
- **POLS 1000** American Heritage SS (3)

Complete the following:

- **PHIL 2050** Ethics and Values IH 3
- **HLTH 1100** Personal Health and Wellness TE (2)
- **EXSC 1097** Fitness for Life TE 2

**Distribution Courses:**

- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities 3
- Fine Arts 3
- Social/Behavioral Science 3

**Discipline Core Requirements:** 30 Credits

- **POLS 1100** American National Government AS 3
- **POLS 2100** Introduction to International Relations SS 3
- **POLS 2200** Introduction to Comparative Politics SS 3
- **POLS 230G** Introduction to Political Theory GI 3
- **POLS 3000** Political Analysis 3
- **POLS 4990** Senior Seminar WE (3)
- **POLS 480R** Internship WE 3
- **PJST 4900** Peace and Justice Studies Capstone WE (3)

**Quantitative Requirement**

- **POLS 3010** Political Analysis II 3

Complete 9 credits from the following courses: 9

- **POLS 3020** Public Program Analysis (3)
- **POLS 3040** Survey Research and Design Methods (3)
- **POLS 3050** Experimental Methods in Political Science (3)
- **POLS 3060** Qualitative Analysis (3)
- **POLS 3070** Policy Analysis (3)

**Elective Requirements:** 25 Credits

Any courses numbered 1000 or higher (3 credit hours must be upper division (3000-4000 level courses) 25

**Emphasis Requirements:** 30 Credits

- **POLS 3300** Introduction to Public Administration 3
- **POLS 3310** Introduction to Public Policy WE 3

Complete 12 credits from the followings courses: 12

- **AIST 3590** American Indian Law (3)
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- **HR 3430** Introduction to Human Resource Management (3)
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Complete any 12 elective credits (at least 4 credits must be upper division) 12

**Graduation Requirements:**

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**Political Science - Public Administration and Public Policy Emphasis, B.S.**

**Careers**

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Total Program Credits: 120

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**Distribution Courses:**

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**Discipline Core Requirements:**

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<td>POLS 230G</td>
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**Elective Requirements:**

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**Emphasis Requirements:**

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**Complete 15 credits from the followings courses:**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIST 3590</td>
<td>American Indian Law</td>
<td>3</td>
</tr>
<tr>
<td>AIST 3600</td>
<td>American Indian Policy and Tribal Government</td>
<td>3</td>
</tr>
<tr>
<td>CNST 2600</td>
<td>Comparative Constitutionalism</td>
<td>3</td>
</tr>
<tr>
<td>CNST 3870</td>
<td>Constitutional History to Plessy 1896</td>
<td>3</td>
</tr>
<tr>
<td>CNST 3880</td>
<td>Constitutional History Since Plessy 1896</td>
<td>3</td>
</tr>
<tr>
<td>CNST 4720</td>
<td>Foundations of American Constitutionalism</td>
<td>3</td>
</tr>
<tr>
<td>CNST 4730</td>
<td>Framing of the US Constitution</td>
<td>3</td>
</tr>
<tr>
<td>CNST 4790</td>
<td>US Constitution</td>
<td>3</td>
</tr>
<tr>
<td>CNST 4795</td>
<td>Civil Rights and Civil Liberties</td>
<td>3</td>
</tr>
<tr>
<td>CNST 490R</td>
<td>Issues and Topics in Constitutional Studies</td>
<td>3</td>
</tr>
<tr>
<td>CNST 491R</td>
<td>Independent Study (1-4)</td>
<td></td>
</tr>
<tr>
<td>PJST 4300</td>
<td>Race Gender and Class in Peace and Justice</td>
<td>3</td>
</tr>
<tr>
<td>POLS 3480</td>
<td>Race in Politics</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4500</td>
<td>International Conflict and Security</td>
<td>3</td>
</tr>
<tr>
<td>POLS 4610</td>
<td>International Law</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4500</td>
<td>US Economic Development and History</td>
<td>3</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 120 or more semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above, with no POLS course grade lower than a C-.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Completion of 16 credit hours of coursework from one language to include 1010, 1020, 2010, and 202G/2020 levels or transferred equivalents.
6. Successful completion of at least one Global/Intercultural course.

**Political Science - Public Law and Political Philosophy Emphasis, B.A.**

**Careers**

1. Demonstrate critical reading, analytical thinking, advanced writing, and oral presentation skills.
2. Demonstrate competency in identifying and comparing various types of political models, political theories, and academic literature.
3. Acquire civic knowledge and understand how it is important for civic engagement.

**Related Careers**

- Managers, All Other
- Political Scientists
- Political Science Teachers, Postsecondary

**Political Science - Public Law and Political Philosophy Emphasis, B.S.**

**Requirements**

Political science enjoys a central position among the social sciences. Aristotle characterized politics as the "queen of the sciences." It is a broad discipline that encompasses philosophical, historical and analytical studies of governments, politics and policies. Political science students learn not only the concepts, theories and methods associated with the discipline, but also gain the cognitive and presentational skills required of tomorrow’s public and private leaders. At its core, politics is about building and maintaining communities at the local, state, national and international levels that enable citizens to live enriching and fulfilling lives. Political science students develop not only an understanding of those communities, but also the ability to influence them.

**Total Program Credits: 120**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Context CC (5)</td>
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</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3) (recommended)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6) (recommended)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL (4) (recommended for business, Education, Science, and Health Professions majors)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1700 American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 2700 US History to 1877 AS (3) and HIST 2710 US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740 US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000 American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100 Personal Health and Wellness TE (2) or EXSC 1097 Fitness for Life TE</td>
<td>2</td>
</tr>
<tr>
<td>Distribution Courses:</td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
</tr>
<tr>
<td>Discipline Core Requirements:</td>
<td>30 Credits</td>
</tr>
<tr>
<td>POLS 1100 American National Government AS</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2100 Introduction to International Relations SS</td>
<td>3</td>
</tr>
<tr>
<td>POLS 2200 Introduction to Comparative Politics SS</td>
<td>3</td>
</tr>
<tr>
<td>POLS 230G Introduction to Political Theory GI</td>
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<tr>
<td>POLS 3000 Political Analysis</td>
<td>3</td>
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<tr>
<td>POLS 4990 Senior Seminar WE (3) or POLS 480R Internship WE</td>
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</tr>
<tr>
<td>or PJST 4900 Peace and Justice Studies Capstone WE (3)</td>
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<tr>
<td>Quantitative Requirement</td>
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<tr>
<td>POLS 3010 Political Analysis II</td>
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<td>Complete 9 credits from the following courses:</td>
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<tr>
<td>POLS 3020 Public Program Analysis (3)</td>
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</tr>
<tr>
<td>POLS 3040 Survey Research and Design Methods (3)</td>
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<tr>
<td>POLS 3050 Experimental Methods in Political Science (3)</td>
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<tr>
<td>POLS 3060 Qualitative Analysis (3)</td>
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<tr>
<td>POLS 3070 Policy Analysis (3)</td>
<td></td>
</tr>
<tr>
<td>Elective Requirements:</td>
<td>25 Credits</td>
</tr>
<tr>
<td>Any courses numbered 1000 or higher (3 credit hours must be upper division (3000-4000 level courses)</td>
<td>25</td>
</tr>
<tr>
<td>Emphasis Requirements:</td>
<td>30 Credits</td>
</tr>
<tr>
<td>POLS 3250 Introduction to Law and Politics</td>
<td>3</td>
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<tr>
<td>Complete 15 credits from the followings courses:</td>
<td>15</td>
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<tr>
<td>AIST 3590 American Indian Law (3)</td>
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</tr>
<tr>
<td>AIST 3600 American Indian Policy and Tribal Government (3)</td>
<td></td>
</tr>
<tr>
<td>CNST 2600 Comparative Constitutionalism (3)</td>
<td></td>
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</table>

Utah Valley University
Course Catalog 2023-2024

353
History and Political Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNST 3870</td>
<td>Constitutional History to Plessy 1896</td>
<td>(3)</td>
</tr>
<tr>
<td>CNST 3880</td>
<td>Constitutional History Since Plessy 1896</td>
<td>(3)</td>
</tr>
<tr>
<td>CNST 4720</td>
<td>Foundations of American Constitutionalism</td>
<td>(3)</td>
</tr>
<tr>
<td>CNST 4730</td>
<td>Framing of the US Constitution</td>
<td>(3)</td>
</tr>
<tr>
<td>CNST 4790</td>
<td>US Constitution</td>
<td>(3)</td>
</tr>
<tr>
<td>CNST 4795</td>
<td>Civil Rights and Civil Liberties</td>
<td>(3)</td>
</tr>
<tr>
<td>CNST 490R</td>
<td>Issues and Topics in Constitutional Studies</td>
<td>(3)</td>
</tr>
<tr>
<td>CNST 491R</td>
<td>Independent Study</td>
<td>(1-4)</td>
</tr>
<tr>
<td>PJST 4300</td>
<td>Race Gender and Class in Peace and Justice</td>
<td>(3)</td>
</tr>
<tr>
<td>POLS 3480</td>
<td>Race in Politics</td>
<td>(3)</td>
</tr>
<tr>
<td>POLS 4500</td>
<td>International Conflict and Security</td>
<td>(3)</td>
</tr>
<tr>
<td>POLS 4610</td>
<td>International Law</td>
<td>(3)</td>
</tr>
<tr>
<td>ECON 4500</td>
<td>US Economic Development and History</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>Complete any 12 elective credits (at least 4 credits must be upper division, and at least 3 credits must be a POLS Writing Enriched course)</td>
<td>12</td>
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</tbody>
</table>

Graduation Requirements:
1. Completion of a minimum of 120 or more semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above, with no POLS course grade below C-.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

Political Science - Public Law and Political Philosophy Emphasis, B.S.

Careers
1. Demonstrate critical reading, analytical thinking, advanced writing, and oral presentation skills.
2. Demonstrate competency in identifying and comparing various types of political models, political theories, and academic literature.
3. Acquire civic knowledge and understand how it is important for civic engagement.

Related Careers
- Managers, All Other
- Political Scientists
- Political Science Teachers, Postsecondary
Honors

Honors Program

The Honors Program is in the Academic Affairs Division. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Honors Program, visit their website.

Honors Program

FACULTY

MCPHERSON, Kathryn R. Professor

Course Descriptions

Honors........................................................................................................734
Information Systems and Technology

Information Systems and Technology

The Information Systems and Technology department is in the Scott M. Smith College of Engineering. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Information Systems and Technology department, visit their website.

Information Systems and Technology department

DEPARTMENT CHAIR
BENTLEY, Jan Associate Professor

FACULTY
ANDERSON, John Professor
BALL, Nicholas L. Associate Professor
BARTHOLOMEW, Tyler Lecturer
BENTLEY, Jan Associate Professor
CRANDALL, Kodey Assistant Professor
HAMDAN, Basil Associate Professor
HICKMAN, George D. Associate Professor
IVIE, Richard Lecturer
KREBS, Cynthia Olsen Professor
LOTFY, Mohammad Associate Professor
MCDONALD, Daniel Professor
MORREY, C. Paul Associate Professor
NORTH, Matthew A. Professor
ORMOND, Pat R. Professor
SMITH, Doreen Sr. Lecturer
TAYSOM, Charles Lecturer

Course Descriptions

Business/Marketing Education.......................................................... 573
Computing........................................................................................ 603
Information Management................................................................. 740
Info Systems and Technology............................................................ 742
Information Technology..................................................................... 750

Degrees & Programs

Administrative Information Management, A.S.

Requirements

The two-year pre-major AS in Administrative Information Management program provides training for students seeking to complete general education requirements and develop their skills and knowledge in basic computer applications, written business communication, and financial accounting. Graduates of this program obtain temporary employment and pursue a Bachelor's degree for more advanced training in Information Management.

Total Program Credits: 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>36 Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
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</tr>
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</table>

or

<table>
<thead>
<tr>
<th>ENGL 1005 Literacies and Composition Across Context CC</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL</td>
<td>4</td>
</tr>
</tbody>
</table>

or

<table>
<thead>
<tr>
<th>MATH 1055 College Algebra with Preliminaries QL</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700 US History to 1877 AS</td>
<td>3</td>
</tr>
</tbody>
</table>
and
| HIST 2710 US History since 1877 AS | 3 |
| HIST 1700 American Civilization AS | 3 |
| HIST 1740 US Economic History AS | 3 |
| POLS 1000 American Heritage SS | 3 |
| POLS 1100 American National Government AS | 3 |

Complete one of the following:

<table>
<thead>
<tr>
<th>PHIL 2050 Ethics and Values IH</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 1100 Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097 Fitness for Life TE</td>
<td>2</td>
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</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>ECON 2020 Principles of Economics II SS</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>Biology</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts Distribution</td>
<td>3</td>
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</tbody>
</table>

Discipline Core Requirements: 21 Credits

<table>
<thead>
<tr>
<th>IM 1010 Basic Computer Applications</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM 2300 Information Management Principles</td>
<td>3</td>
</tr>
<tr>
<td>IM 2500 Graphic Applications</td>
<td>3</td>
</tr>
<tr>
<td>IM 2600 Spreadsheet Applications</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2420 Web Application Design</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2010 Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 220G Written Business Communication WE</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements: 3 Credits

Complete 3 credits from department pre-approved electives; see advisor for more information.

<table>
<thead>
<tr>
<th>ACC 1150 Fundamentals of Business Math</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>IM 2100 Document Processing Applications</td>
<td>3</td>
</tr>
<tr>
<td>INFO 1120 Information Systems and Technology Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INFO 1200 Computer Programming I for IS IT</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2110 Interpersonal Communication SS</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 or above with a minimum 2.5 GPA in all discipline and elective courses with no grade lower than a C-.
3. Residency hours—minimum of 20 credit hours through attendance at UVU.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
Administrative Information Management, A.S.

Careers

1. An ability to explain information and project management concepts in written and verbal forms
2. Recognition of the need for continued interest in maintaining and updating technical skills required by business and industry
3. Ability to analyze problems and use appropriate skills and technology to reach solutions

Related Careers

• Data Entry Keyers

Administrative Information Support, A.A.S.

Requirements

Every industry relies heavily on competent, qualified, and professional office staff. The two-year AAS in Administrative Information Support program provides training for students seeking to develop their skills and knowledge of office administration and office systems. The program core focuses on word processing, presentations, graphics, spreadsheet, and database applications, as well as written and oral business communication skills, office procedures, and basic accounting skills.

Total Program Credits: 63

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>18 Credits</th>
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<tbody>
<tr>
<td><strong>English:</strong></td>
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</tr>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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<tr>
<td><strong>Mathematics:</strong></td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>4</td>
</tr>
<tr>
<td>MAT 1010 Intermediate Algebra (4)</td>
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</tr>
<tr>
<td>MATH 1050 College Algebra QL (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td><strong>Humanities/Fine Arts/Foreign Language</strong></td>
<td></td>
</tr>
<tr>
<td>Any approved Humanities/Fine Arts/Foreign Language Distribution</td>
<td>3</td>
</tr>
<tr>
<td><strong>Social and Behavioral Science (ECON 2010 or ECON 2020 recommended for students who plan to pursue BS Information Management)</strong></td>
<td></td>
</tr>
<tr>
<td>Any approved Social and Behavioral Science Distribution</td>
<td>3</td>
</tr>
<tr>
<td><strong>Biology or Physical Science</strong></td>
<td></td>
</tr>
<tr>
<td>Any approved Biology or Physical Science Distribution</td>
<td>3</td>
</tr>
<tr>
<td><strong>Physical Education/Health/Safety or Environment</strong></td>
<td></td>
</tr>
<tr>
<td>HLTH 1100 Personal Health and Wellness TE</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>36 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM 1010 Basic Computer Applications</td>
<td></td>
</tr>
<tr>
<td>IM 2100 Document Processing Applications</td>
<td></td>
</tr>
<tr>
<td>IM 2300 Information Management Principles</td>
<td></td>
</tr>
<tr>
<td>IM 2500 Graphic Applications</td>
<td></td>
</tr>
<tr>
<td>IM 2010 Business Computer Proficiency</td>
<td></td>
</tr>
<tr>
<td>or IM 2600 Spreadsheet Applications (3)</td>
<td></td>
</tr>
<tr>
<td>INFO 1200 Computer Programming I for IS IT</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2420 Web Application Design</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2010 Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2020 Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>FIN 1060 Personal Finance SS</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 220G Written Business Communication GI WE</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2110 Interpersonal Communication SS</td>
<td>3</td>
</tr>
</tbody>
</table>

| Elective Requirements: | 9 Credits |
| Complete 9 credits from the following department pre-approved electives: |  |
| IM 2800 Integrated Software Projects (3) | |
| IT 1700 Cybersecurity Essentials (3) | |
| ACC 1150 Fundamentals of Business Math (3) | |
| MGMT 1200 Business English (3) | |
| MGMT 2030 Inclusive Leadership SS (3) | |

| Graduation Requirements: | |
| 1. Minimum 63 credits to graduate. | |
| 2. Overall grade point average of 2.0 or above with a minimum 2.5 GPA in all discipline core and elective courses with no grade lower than a C-. | |
3. A minimum keyboarding skill of 40 net words per minute is required for graduation.
4. Residency hours—minimum of 20 credit hours through attendance at UVU.
5. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.

Note: Potential 4-year students need to take MATH 1050 College Algebra QL as their MATHEMATICS Distribution.

Administrative Information Support, A.A.S. Careers

Program Learning Outcomes
1. An ability to explain information and project management concepts in written and verbal forms.
2. Recognition of the need for continued interest in maintaining and updating technical skills required by business and industry.
3. A global perspective on legal and ethical issues surrounding information management and technology.
4. An ability to analyze problems and use appropriate skills and technology to reach solutions.

Related Careers
• Data Entry Keyers

Information Systems and Technology, A.A.S. Requirements

The two-year AAS in Information Systems and Technology is designed to help students develop job-ready computer skills to meet today's industry needs. Students complete a foundational core in programming, database, web application design, data communication, and networking. After that, students select a specialization in either Information Systems or Information Technology to complete a focused set of courses to obtain more in-depth knowledge and skills for a variety of computer-related jobs. If planned carefully with an advisor, this program provides a smooth, stackable pathway to the B.S. in Information Systems degree or the B.S. in Information Technology degree at UVU.

Total Program Credits: 63

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
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<tbody>
<tr>
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<td>Mathematics:</td>
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<td>MATH 1050 College Algebra QL</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 1055 College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>or Any higher Mathematics Course</td>
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</tr>
<tr>
<td>HUMANITIES/FINE ARTS/FOREIGN LANGUAGE</td>
<td></td>
</tr>
<tr>
<td>Any approved Humanities, Fine Arts, or Foreign Language Distribution course.</td>
<td>3</td>
</tr>
</tbody>
</table>

| SOCIAL AND BEHAVIORAL SCIENCE | 3 |
| PHIL 2050 Ethics and Value IH | |

| BIOLOGY OR PHYSICAL SCIENCE | 3 |
| Any approved Biology or Physical Science Distribution Course for BS Information Systems degree future students. |

| PHYSICAL EDUCATION/HEALTH/SAFETY OR ENVIRONMENT | |
| HLTH 1100 Personal Health and Wellness TE | 2 |
| or EXSC 1097 Fitness for Life TE (2) | |

Discipline Core Requirements: 21 Credits

| Written Communication Requirement: | 3 |
| ENGL 2010 Intermediate Academic Writing CC | |

Math Requirement: 3

| Math Requirement: |
| STAT 2050 Introduction to Statistical Methods (4) |
| or MGMT 2340 Business Statistics I (3) |

Core Requirements:

| Information Systems and Technology Fundamentals | 3 |
| INFO 1120 Information Systems and Technology Fundamentals |
| or INFO 1200 Computer Programming I for IS IT |
| or CS 1400 Fundamentals of Programming (3) |
| INFO 2410 Database Fundamentals | 3 |
| or IT 2600 Data Communication Fundamentals | 3 |
| or CS 2600 Computer Networks I (3) |
| or IT 2700 Information Security Fundamentals | 3 |

Elective Requirements: 21 credits

Choose 21 credits from either the Information Systems group or the Information Technology group. See department advisor to select classes if plan to obtain BS in IT degree in the future.

INFORMATION SYSTEMS

| 21 |
| ACC 2010 Financial Accounting (3) |
| ACC 2020 Managerial Accounting (3) |
Information Systems and Technology

**Graduation Requirements:**

1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above with a minimum 2.5 GPA in all discipline core and elective courses with no grade lower than a "C-".
3. Residency hours: minimum of 20 credit hours through attendance at UVU.

4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.

**footnotes:**

1. ENGL 2100 Technical Communication HH WE recommended for BS in Information Technology degree future students.
2. CJ 1010 Introduction to Criminal Justice SS recommended for BS Information Technology degree future students with the Computer Forensics and Security emphasis. ECON 2010 Principals of Economics I SS recommended for BS Information Systems degree future students.
3. PHYS 2010 College Physics I PP and PHYS 2015 College Physics I Lab recommended for BS Information Technology degree future students.
4. If plan to obtain BS in Information Technology with Computer Forensics & Security emphasis, take CJ 1330 Criminal Law and CJ 2350 Laws of Evidence as domain classes.

Information Systems and Technology, A.A.S.

**Careers**

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.
3. Communicate effectively in a variety of professional contexts.
4. Support the delivery, use, and management of information systems within an information systems environment.
5. Apply tools, concepts, and networking techniques to solve business problems.

**Related Careers**

- Computer and Information Systems Managers
- Computer and Information Research Scientists
- Computer Systems Analysts
- Database Administrators
- Network and Computer Systems Administrators
- Computer Network Architects
- Computer Occupations, All Other
- Computer Science Teachers, Postsecondary

Information Systems and Technology, A.S.

**Requirements**

The two-year pre-major AS in Information Systems and Technology program provides training for students seeking to complete general education requirements and develop foundational skills in programming, database, web application design, system administration, computer architecture, data communication, and security. Graduates of this program obtain temporary employment and pursue a Bachelor of Science in Information Systems or Information Technology for more advanced education.

**Total Program Credits: 60**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>36 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 1005 Literacies and Composition Across Context CC (5.0)</td>
<td></td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 1055 College Algebra with Preliminaries QL (5.0)</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following: 3
Information Systems and Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3.0)</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3.0)</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3.0)</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3.0)</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3.0)</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3.0)</td>
</tr>
<tr>
<td>IM 2700</td>
<td>Information Security Fundamentals (3.0)</td>
</tr>
<tr>
<td>EXSC 1097</td>
<td>Fitness for Life TE (2.0)</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 or above with a minimum 2.5 GPA in all discipline core and elective courses with no grade lower than a "C-.
3. Residency hours: minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.

Information Systems and Technology, A.S.

Careers

1. An ability to apply knowledge of computing and mathematics appropriate to Information Systems and Technology.
2. An ability to communicate effectively with a range of audiences, both in written and oral forms.
3. An ability to use current techniques, skills, and tools necessary for Information Systems and Technology.
4. An ability to apply knowledge of computing and mathematics appropriate to Information Systems.
5. An ability to analyze a problem, and identify and define computing requirements appropriate to its solution.

6. An ability to function effectively on teams to accomplish a common goal.
7. An understanding of security issues and responsibilities related to Information Systems and Technology.
8. An ability to communicate effectively with a range of audiences, both in written and oral forms.
9. An ability to use current techniques, skills, and tools necessary for Information Systems and Technology.

Related Careers

- Computer and Information Systems Managers
- Computer and Information Research Scientists
- Computer Systems Analysts
- Database Administrators
- Network and Computer Systems Administrators
- Computer Network Architects
- Computer Occupations, All Other
- Computer Science Teachers, Postsecondary

Administrative Support, Certificate of Completion

Requirements

The one-year certificate in Administrative Support program provides training in basic computer literacy and applications, such as word processing, presentations, graphics, and spreadsheet applications. In addition, students build skills in interpersonal and written business communication.

Total Program Credits: 30

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM 1010</td>
<td>Basic Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>IM 2100</td>
<td>Document Processing Applications</td>
<td>3</td>
</tr>
<tr>
<td>IM 2300</td>
<td>Information Management Principles</td>
<td>3</td>
</tr>
<tr>
<td>IM 2500</td>
<td>Graphic Applications</td>
<td>3</td>
</tr>
<tr>
<td>IM 2600</td>
<td>Spreadsheet Applications</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2420</td>
<td>Web Application Design</td>
<td>3</td>
</tr>
<tr>
<td>ACC 1150</td>
<td>Fundamentals of Business Math (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ACC 2100</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2110</td>
<td>Interpersonal Communication SS (3)</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GI WE</td>
<td>3</td>
</tr>
<tr>
<td>FIN 1060</td>
<td>Personal Finance SS</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 30 credits.
2. Overall GPA of 2.0 or higher with a minimum grade of "C-.
3. Residency hours -- minimum of 10 credit hours through course attendance at UVU.
4. A minimum keyboarding skill of 40 net words per minute is required for graduation.
5. Students are responsible for completing all prerequisite courses.

Note: Potential Administrative Information Support and BS in Information Management students need to take ACC 2100 Financial Accounting.

Administrative Support, Certificate of Completion

Careers

1. An ability to explain information and project management concepts in written and verbal forms.
2. Recognition of the need for continued interest in maintaining and updating technical skills required by business and industry.
3. An ability to analyze problems and use appropriate skills and technology to reach solutions.

Related Careers
- Executive Secretaries and Executive Administrative Assistants
- Secretaries and Administrative Assistants, Except Legal, Medical, and Executive

Administrative Support, Certificate of Proficiency

Requirements
The one-year certificate in Administrative Support program provides training in basic computer literacy and applications, such as word processing, presentations, graphics, and spreadsheet applications. In addition, students build skills in interpersonal and written business communication.

Total Program Credits: 30

Discipline Core Requirements: 19 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1010</td>
<td>Intermediate Algebra</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 1050</td>
<td>College Algebra QL</td>
<td></td>
</tr>
<tr>
<td>or MATH 1055</td>
<td>College Algebra with Preliminaries QL</td>
<td></td>
</tr>
<tr>
<td>IM 2105</td>
<td>Business Computer Proficiency</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2420</td>
<td>Web Application Design</td>
<td>3</td>
</tr>
<tr>
<td>FIN 1060</td>
<td>Personal Finance SS</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS</td>
<td>3</td>
</tr>
<tr>
<td>or POLS 1000</td>
<td>American Heritage SS</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Completion of a minimum of 19 credits.
2. Overall GPA of 2.75 or above.
3. Residency hours -- minimum of 5 credit hours through course attendance at UVU.

Elective Requirements: 3 Credits

Choose 3 credits from the following courses:
- INFO 2200 Computer Programming II for IS IT (3.0)
- INFO 4300 Enterprise Web Development (3.0)
- INFO 4425 Web Application Security (3.0)

Graduation Requirements:
1. Completion of a minimum of 18 semester credits.
2. Minimum grade of C- required in all courses.
3. Overall grade point average of 2.0 (C) or above.
4. Residency hours: minimum of 9 credit hours through course attendance at UVU.

Application Development, Certificate of Proficiency

Careers
1. Communicate effectively with a range of audiences, both in written and verbal form.
2. Plan, create, and apply business solutions using current information skills and technology.
3. Design, create, and format documents, spreadsheets, and charts as required by business and industry.
4. Create and use HTML tables, templates, imagemaps, hyperlinks, etc.

Related Careers
- Executive Secretaries and Executive Administrative Assistants
- Secretaries and Administrative Assistants, Except Legal, Medical, and Executive

Application Development, Certificate of Proficiency

Requirements
The Certificate of Proficiency in Application Development allows employees who do not have a degree to obtain a credential to advance their career prospects. The certificate also allows those individuals who earned degrees outside the computing fields to obtain a credential in Application Development to increase their value to their current or future employers.

Total Program Credits: 18

Matriculation Requirements: 3 Credits

Programming Prerequisite:
- INFO 1200 Computer Programming I IS IT (3.0) or CS 1400 Fundamentals of Programming (3.0)

Web Design Recommended Prerequisite:
- INFO 2420 Web Application Design
- or DGM 2120 Web Essentials (3.0)
- Other INFO or IT Prerequisites (depending on elective)

Discipline Core Requirements: 15 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 2410</td>
<td>Database Fundamentals</td>
</tr>
<tr>
<td>INFO 3300</td>
<td>Web Systems Development</td>
</tr>
<tr>
<td>INFO 3330</td>
<td>Client-Side Web Development</td>
</tr>
<tr>
<td>INFO 3360</td>
<td>Server-Side Web Frameworks</td>
</tr>
<tr>
<td>INFO 4420</td>
<td>Mobile Application Development</td>
</tr>
</tbody>
</table>

Elective Requirements: 3 Credits

Choose 3 credits from the following courses:
- INFO 2200 Computer Programming II for IS IT (3.0)
- INFO 4300 Enterprise Web Development (3.0)
- INFO 4425 Web Application Security (3.0)

Graduation Requirements:
1. An ability to apply knowledge of computing and mathematics appropriate to Application Development.
2. An ability to analyze a problem, and identify and define computing requirements appropriate to its solution.
3. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet the needs of an organization and its users.
4. ability to function effectively on teams to accomplish a common goal.
5. An understanding of professional, ethical, legal, security, and social issues and responsibilities related to Information Systems.
6. An ability to communicate effectively with a range of audiences, both in written and oral forms.
7. An ability to analyze the local and global impact of computing on individuals, organizations, and society.
8. An ability to use current techniques, skills, and tools necessary for Application Development.

Related Careers
- Computer Programmers
- Software Developers, Applications
- Software Developers, Systems Software
Data Analytics, Certificate of Proficiency

Requirements
A Certificate of Proficiency in Data Analytics allows employees who do not have a degree to obtain a credential to advance their career prospects. A certificate also allows those individuals who earned degrees outside the computing fields to obtain a credential in Data Analytics to increase their value to their current or future employers.

Total Program Credits: 18

Matriculation Requirements:
Prerequisites may be fulfilled through successful completion of courses listed or by successfully passing challenge exams in areas where challenge exams exist. Statistics Prerequisites:

- STAT 2050 Introduction to Statistical Methods (4.0) or
- MGMT 2340 Business Statistics I (3.0) or
- STAT 1045 Introduction to Statistics with Algebra QL (3.0) or
- STAT 2040 Principles of Statistics QL (3.0) or
- BESC 3010 Statistics for the Behavioral Sciences (4.0)
- Other CS, DGM, IT, or Marketing Prerequisites (depending on elective)

Discipline Core Requirements: 15 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 2410</td>
<td>Database Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3130</td>
<td>Introduction to Applied Data Analytics</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3410</td>
<td>Database Systems and Warehousing</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4120</td>
<td>Data Visualization</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4130</td>
<td>Data Science and Big Data Analytics</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements: 3 Credits

Choose 3 credits from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 4620</td>
<td>Data Mining (3.0)</td>
</tr>
<tr>
<td>DGM 3750</td>
<td>Media Analytics (3.0)</td>
</tr>
<tr>
<td>INFO 4135</td>
<td>Data Security Analytics (3.0)</td>
</tr>
<tr>
<td>INFO 4410</td>
<td>Database Administration (3.0)</td>
</tr>
<tr>
<td>MKTG 3690</td>
<td>Digital Marketing Analytics (3.0)</td>
</tr>
<tr>
<td>MKTG 4610</td>
<td>Sales Operations (3.0)</td>
</tr>
<tr>
<td>STAT 4100</td>
<td>Design of Experiment (3.0)</td>
</tr>
<tr>
<td>STAT 4200</td>
<td>Survey Sampling (3.0)</td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Completion of a minimum of 18 semester credits.
2. Minimum grade of C- required in all courses.
3. Overall grade point average of 2.0 (C) or above.
4. Residency hours: minimum of 9 credit hours through course attendance at UVU.

Data Analytics, Certificate of Proficiency

Careers

1. Develop technical and analytical skills which will complement professional expertise across a broad array of disciplines.
2. Apply knowledge of computing and mathematics appropriate to Data Analytics.
3. Analyze a problem, and identify and define computing requirements appropriate to its solution.
4. Design, implement, and evaluate a computer-based system, process, component, or program to meet the needs of an organization and its users.
5. Function effectively on teams to accomplish a common goal.
6. Communicate effectively with a range of audiences, both in written and oral forms.
7. Use current techniques, skills, and tools necessary for Data Analytics.

Related Careers
- Chief Executives
- General and Operations Managers
- Operations Research Analysts
- Business Teachers, Postsecondary

Database Administration and Data Warehousing, Certificate of Proficiency

Requirements
The Certificate of Proficiency in Database Administration and Data Warehousing allows employees who do not have a degree to obtain a credential to advance their career prospects. It also allows those individuals who earned degrees outside the computing fields to obtain a credential in Database Administration and Data Warehousing to increase their value to their current or future employers.

Total Program Credits: 18

Matriculation Requirements:
Prerequisites may be fulfilled through successful completion of courses listed or by successfully passing challenge exams in areas where challenge exams exist. Statistics Prerequisite (if select INFO 3130 as elective):

- STAT 2050 Introduction to Statistical Methods (4.0) or
- MGMT 2340 Business Statistics I (3.0) or
- STAT 1045 Introduction to Statistics with Algebra QL (5.0) or
- STAT 2040 Principles of Statistics QL (4.0) or
- PSY 3110 Statistics for the Behavioral Sciences (4.0)
- Database Prerequisite (if select CS 3720 Database Programming as elective):
  - CS 3520 Database Theory (3.0)

Discipline Core Requirements: 12 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 2410</td>
<td>Database Fundamentals</td>
</tr>
<tr>
<td>INFO 3410</td>
<td>Database Systems and Warehousing</td>
</tr>
<tr>
<td>INFO 4410</td>
<td>Database Administration</td>
</tr>
<tr>
<td>MKTG 3690</td>
<td>Digital Marketing Analytics</td>
</tr>
<tr>
<td>MKTG 4610</td>
<td>Sales Operations</td>
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<tr>
<td>STAT 4100</td>
<td>Design of Experiment</td>
</tr>
<tr>
<td>STAT 4200</td>
<td>Survey Sampling</td>
</tr>
</tbody>
</table>

Elective Requirements: 6 Credits

Choose 6 credits from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 3130</td>
<td>Introduction to Applied Data Analytics</td>
</tr>
<tr>
<td>INFO 4120</td>
<td>Data Visualization</td>
</tr>
<tr>
<td>CS 3720</td>
<td>Database Programming</td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Completion of a minimum of 18 semester credits.
2. Minimum grade of C- required in all courses.
3. Overall grade point average of 2.0 (C) or above.
4. Residency hours: minimum of 9 credit hours through course attendance at UVU.
Database Administration and Data Warehousing, Certificate of Proficiency

Careers

1. An ability to apply knowledge of computing and mathematics appropriate to Database Administration and Data Warehousing.
2. An ability to analyze a problem, and identify and define computing requirements appropriate to its solution.
3. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet the needs of an organization and its users.
4. An ability to function effectively on teams to accomplish a common goal.
5. An understanding of professional, ethical, legal, security, and social issues and responsibilities related to Information Systems.
6. An ability to communicate effectively with a range of audiences, both in written and oral forms.
7. An ability to analyze the local and global impact of computing on individuals, organizations, and society.
8. Recognition of the need for, and an ability to engage in, continuing professional developments.
9. An ability to use current techniques, skills, and tools necessary for Information Systems.
10. An understanding of processes that support the delivery and management of Information Systems within a specific application environment.
11. An ability to assist in the creation and management of an effective project plan.

Related Careers

• Database Administrators

Digital Information Management CA, Certificate of Proficiency

Requirements

The Digital Information Management CA is designed to prepare students to use public relations and communication skills in a business office and to oversee front office operations. Courses include instruction in digital literacy basics, word processing, spreadsheets, and information records management.

Total Program Credits: 12

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>12 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM 1010 Basic Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>IM 2010 Business Computer Proficiency</td>
<td>3</td>
</tr>
<tr>
<td>or IM 2600 Spreadsheet Applications (3)</td>
<td></td>
</tr>
<tr>
<td>IM 2100 Document Processing Applications</td>
<td>3</td>
</tr>
<tr>
<td>IM 2300 Information Management Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 12 credits.
2. Overall grade point average of 2.0 or higher with a minimum grade of “C-” or above.
3. All courses must be completed at UVU.

Digital Information Management CA, Certificate of Proficiency

Careers

1. Use information technology to find information, to evaluate problems, and create solutions requiring cognitive and technical skills.

Related Careers

• Executive Secretaries and Executive Administrative Assistants
• Secretaries and Administrative Assistants, Except Legal, Medical, and Executive

Foundations of Application Development CA, Certificate of Proficiency

Requirements

The CP in Foundations of Application Development CA is designed to prepare students for an entry-level job in application development. Courses include programming, database, and web application design.

Total Program Credits: 12

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>12 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 1200 Computer Programming I for IS IT</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2200 Computer Programming II for IS IT</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2410 Database Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2420 Web Application Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Overall GPA of 2.0 or higher with a minimum grade of “C-”.
2. All courses must be completed at UVU.

Information Systems and Technology, Certificate of Proficiency

Requirements

The Certificate of Proficiency in Information Systems and Technology is available to all UVU Students with a particular focus designed to provide high school students an opportunity to obtain a stackable certificate of proficiency with an emphasis in career and technical education while still enrolled in high school. This certificate will be available from the University for college students/adults looking for basic entry-level skills leading to further academic advancement. Students complete a
foundational core in programming, database, web application design, data communication, and networking.

**Total Program Credits: 16**

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>10 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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</tr>
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<td>4</td>
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<tr>
<td>or MATH 1055 College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>INFO 1120 Information Systems and Technology Fundamentals</td>
<td>3</td>
</tr>
</tbody>
</table>

**Domain Requirements:**

Complete 6 credits from one domain:

6 Credits

**Information Systems Domain**

| INFO 1200 Computer Programming I for IS IT (3) |   |
| or CS 1400 Fundamentals of Programming (3) |   |
| INFO 2420 Web Application Design (3) |   |

**Information Technology Domain**

| IT 1510 Introduction to System Administration--Linux/UNIX (3) |   |
| IT 1600 Computer Architecture and Systems Software (3) |   |

**Graduation Requirements:**

1. Completion of a minimum of 16 semester credits.
2. Minimum grade of C required in all courses.
3. Overall grade point average of 2.5 (C) or above.
4. Residency hours: minimum of 5 credit hours through course attendance at UVU.

**Information Systems and Technology, Certificate of Proficiency**

**Careers**

1. Practice core competencies in computing to analyze, design, develop, and implement secure computing solutions.
2. Advance professionally with increased workplace contributions.
3. Adapt to change through continued professional development.
4. Serve in professional organizations and local communities.

**Related Careers**

- Computer and Information Systems Managers
- Computer and Information Research Scientists
- Computer Systems Analysts
- Database Administrators
- Network and Computer Systems Administrators
- Computer Network Architects
- Computer Occupations, All Other
- Computer Science Teachers, Postsecondary

**Information Technology, Certificate of Proficiency**

**Requirements**

The Certificate of Proficiency in Information Technology provides students with training in basic computer applications and introductory coursework in the field of Information Technology. The program is designed to get people employed in entry-level IT positions. Students can select from a variety of introductory IT courses to build knowledge and skill in computer programming, database fundamentals, Linux and Windows system administration, computer architecture, cabling, networking, and security.

**Total Program Credits: 18**

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>12 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Context CC (5)</td>
<td></td>
</tr>
<tr>
<td>INFO 1120 Information Systems and Technology Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>IT 1510 Introduction to System Administration--Linux/UNIX</td>
<td>3</td>
</tr>
<tr>
<td>IT 1600 Computer Architecture and Systems Software</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Requirements:**

Complete 6 credits from the following:

6 Credits

| INFO 1200 Computer Programming I for IS IT (3) |   |
| or CS 1400 Fundamentals of Programming (3) |   |
| INFO 2410 Database Fundamentals (3) |   |
| IT 2400 Voice and Data Cabling Fundamentals (3) |   |
| IT 2530 Introduction to System Administration--Windows Client (3) |   |
| IT 2600 Data Communication Fundamentals (3) |   |
| or CS 2600 Computer Networks I (3) |   |
| IT 2700 Information Security Fundamentals (3) |   |
| IT 2800 Computer Forensic Fundamentals (3) |   |
| IT 290R Current Topics in Information Technology (1) |   |

**Graduation Requirements:**

1. Completion of a minimum of 18 semester credits.
2. Minimum grade of C- required in all courses.
3. Overall grade point average of 2.0 (C) or above.
4. Residency hours: minimum of 5 credit hours through course attendance at UVU.

**Information Technology, Certificate of Proficiency**

**Careers**

1. An ability to apply knowledge of computing and mathematics appropriate to Information Technology.
2. An ability to communicate effectively with a range of audiences, both in written and oral forms.
3. An ability to use current techniques, skills, and tools necessary for Information Technology.

**Related Careers**

- Computer Systems Analysts
- Information Security Analysts
- Computer Network Architects
- Computer Network Support Specialists
## Network Administration, Certificate of Completion

### Requirements

The Certificate of Completion in Network Administration provides students with training in server administration, computer architecture, and networking. Students select from a variety of courses in cabling, Windows system administration, router management, information security, computer forensics, and Linux system administration.

**Total Program Credits: 31**

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>25 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>INFO 1120 Information Systems and Technology Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INFO 1200 Computer Programming I for IS IT</td>
<td>3</td>
</tr>
<tr>
<td>or CS 1400 Fundamentals of Programming (3)</td>
<td></td>
</tr>
<tr>
<td>IT 1510 Introduction to System Administration--Linux/UNIX</td>
<td>3</td>
</tr>
<tr>
<td>IT 1600 Computer Architecture and Systems Software</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2410 Database Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>IT 2600 Data Communication Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>or CS 2600 Computer Networks I (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Communication Requirement:**

| ENGL 1010 Introduction to Academic Writing CC | 3 |
| or ENGH 1005 Literacies and Composition Across Contexts CC (3) |  |

**Computation Requirement:**

| MAT 1010 Intermediate Algebra | 4 |
| MATH 1050 College Algebra QL (4) |  |
| MATH 1055 College Algebra with Preliminaries QL (5) |  |

**Elective Requirements:**

| 6 Credits |
|  |
| Choose 6 credits from the following courses: |
| IT 2400 | Voice and Data Cabling Fundamentals (3) |
| IT 2530 | Introduction to System Administration--Windows Client (3) |
| IT 2700 | Information Security Fundamentals (3) |
| IT 2800 | Computer Forensic Fundamentals (3) |
| IT 3510 | Advanced System Administration--Linux/UNIX (3) |
| IT 3530 | Advanced System Administration--Windows Server (3) |

**Graduation Requirements:**

1. Completion of a minimum of 31 semester credits.
2. Minimum grade of C- required in all courses.
3. Overall grade point average of 2.0 (C) or above.
4. Residency hours -- minimum of 10 credit hours through course attendance at UVU.

---

## Network Administration, Certificate of Completion

### Careers

1. An ability to apply knowledge of computing and mathematics appropriate to Network Administration.
2. An ability to communicate effectively with a range of audiences, both in written and oral forms.
3. An ability to use current techniques, skills, and tools necessary for Network Administration.

### Related Careers

- Computer Systems Analysts
- Information Security Analysts
- Computer Network Architects
- Computer Network Support Specialists

## Applied Data Analytics, Minor

### Requirements

The Minor in Applied Data Analytics allows students to choose among Information Systems, Statistics, and Marketing courses to learn about data management and analysis.

**Total Program Credits: 18**

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>6 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 2410 Database Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3130 Introduction to Applied Data Analytics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Requirements:**

| 12 Credits |
|  |
| Choose 12 hours from the following: |
| INFO 3410 Database Systems and Warehousing (3) |
| INFO 4120 Data Visualization (3) |
| INFO 4130 Data Science and Big Data Analytics (3) |
| MKTG 3680 Marketing with Social Media (3) |
| MKTG 3690 Digital Marketing Analytics (3) |
| MKTG 4610 Sales Operations (3) |
| STAT 4100 Design of Experiment (3) |
| STAT 4200 Survey Sampling (3) |
| STAT 4400 Multivariate Analysis WE (3) |
| STAT 4500 Nonparametric Statistics (3) |
| BIOL 3100 Introduction to Data Analysis for Biologists (3) |

Other advisor-approved elective.

**Graduation Requirements:**

1. Completion of a minimum of 18 semester credits.
2. Minimum grade of C- required in all courses.
3. Overall grade point average of 2.0 (C) or above.
4. Residency hours: minimum of 9 credit hours through course attendance at UVU.

## Applied Data Analytics, Minor

### Careers

1. An ability to apply knowledge of computing and mathematics appropriate to Data Analytics.
2. An ability to analyze a problem, and identify and define computing requirements appropriate to its solution.
3. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet the needs of an organization and its users.
4. An ability to function effectively on teams to accomplish a common goal.
5. An ability to communicate effectively with a range of audiences, both in written and oral forms.
6. An ability to use current techniques, skills, and tools necessary for Data Analytics.

**Related Careers**
- Chief Executives
- General and Operations Managers
- Operations Research Analysts
- Business Teachers, Postsecondary

**Business Information Technology, Minor Requirements**
The Minor in Business Information Technology gives students with a business or liberal arts major, the option of strengthening their general studies with technical coursework.

**Total Program Credits: 21**

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Admitted to a bachelor degree program at UVU.</td>
<td></td>
</tr>
</tbody>
</table>

**Discipline Core Requirements:** 21 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM 1010</td>
<td>Basic Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>IM 2100</td>
<td>Document Processing Applications</td>
<td>3</td>
</tr>
<tr>
<td>IM 2500</td>
<td>Graphic Applications</td>
<td>3</td>
</tr>
<tr>
<td>or IM 3500</td>
<td>Desktop Publishing Applications (3.0)</td>
<td>3</td>
</tr>
<tr>
<td>IM 2600</td>
<td>Spreadsheet Applications</td>
<td>3</td>
</tr>
<tr>
<td>IM 2800</td>
<td>Integrated Software Projects</td>
<td>3</td>
</tr>
<tr>
<td>IM 3700</td>
<td>Database Applications</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2420</td>
<td>Web Application Design</td>
<td>3</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Overall grade point average of 2.5 GPA in all discipline core and elective courses with no grade lower than a C-.
2. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.

**Business Information Technology, Minor Careers**

1. An ability to explain information and project management concepts in written and verbal forms.
2. An ability to communicate effectively with a range of audiences, both in written and oral forms.
3. Recognition of the need for continued interest in maintaining and updating technical skills required by business and industry.
4. A global perspective on legal and ethical issues surrounding information management and technology.
5. An ability to analyze problems and use appropriate skills and technology to reach solutions.

**Related Careers**
- Audio-Visual and Multimedia Collections Specialists

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**Information Systems and Technology, Minor Requirements**
The Minor in Information Systems gives students with a business or liberal arts major, the option of strengthening their general studies with technical coursework.

**Total Program Credits: 21**

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>12 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite:</td>
<td></td>
</tr>
<tr>
<td>INFO 1120 Information Systems and Technology Fundamentals (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 1200</td>
<td>Computer Programming I for IS IT</td>
<td>3</td>
</tr>
<tr>
<td>or CS 1400</td>
<td>Fundamentals of Programming</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2410</td>
<td>Database Fundamentals (3)</td>
<td>3</td>
</tr>
<tr>
<td>or INFO 3410</td>
<td>Database Systems and Warehousing</td>
<td></td>
</tr>
<tr>
<td>IT 1600</td>
<td>Computer Architecture and Systems Software</td>
<td>3</td>
</tr>
<tr>
<td>or CS 2810</td>
<td>Computer Organization and Architecture (3)</td>
<td></td>
</tr>
<tr>
<td>IT 2600</td>
<td>Data Communication Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>or IT 3600</td>
<td>Internetworking and Router Management (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Elective Requirements:** 9 Credits

Complete 9.0 credits from the following, 6 credits of which must be upper division:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 2200</td>
<td>Computer Programming II for IS IT</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2420</td>
<td>Web Application Design</td>
<td></td>
</tr>
<tr>
<td>INFO 3120</td>
<td>Management Information Systems</td>
<td></td>
</tr>
<tr>
<td>INFO 3410</td>
<td>Database Systems and Warehousing</td>
<td></td>
</tr>
<tr>
<td>INFO 3300</td>
<td>Web Systems Development</td>
<td></td>
</tr>
<tr>
<td>INFO 3430</td>
<td>Systems Analysis and Design WE</td>
<td></td>
</tr>
<tr>
<td>INFO 3700</td>
<td>Health Informatics Fundamentals</td>
<td></td>
</tr>
<tr>
<td>INFO 4120</td>
<td>Data Visualization</td>
<td></td>
</tr>
<tr>
<td>IT 1510</td>
<td>Introduction to System Administration Linux/UNIX</td>
<td></td>
</tr>
<tr>
<td>IT 2530</td>
<td>Introduction to System Administration Windows Client</td>
<td></td>
</tr>
<tr>
<td>IT 2700</td>
<td>Information Security Fundamentals</td>
<td></td>
</tr>
<tr>
<td>IT 2800</td>
<td>Computer Forensic Fundamentals</td>
<td></td>
</tr>
<tr>
<td>IT 3510</td>
<td>Advanced System Administration Linux/UNIX</td>
<td></td>
</tr>
<tr>
<td>IT 3530</td>
<td>Advanced System Administration Windows Server</td>
<td></td>
</tr>
<tr>
<td>IT 3600</td>
<td>Internetworking and Router Management (3)</td>
<td></td>
</tr>
<tr>
<td>IT 3700</td>
<td>Ethical Hacking and Countermeasures (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Graduation Requirements:**


1. To fill the requirements for an information systems and technology minor, students must have no course grade lower than C- in any of the INFO or IT courses required for the minor.
2. Courses may not be double-counted between the core and elective sections.

### Information Systems and Technology, Minor Careers

1. An ability to apply knowledge of computing and mathematics appropriate to Information Systems and Technology.
2. An ability to communicate effectively with a range of audiences, both in written and oral forms.
3. An ability to use current techniques, skills, and tools necessary for Information Systems and Technology.

### Related Careers

- Computer and Information Systems Managers
- Computer and Information Research Scientists
- Computer Systems Analysts
- Database Administrators
- Network and Computer Systems Administrators
- Computer Network Architects
- Computer Occupations, All Other
- Computer Science Teachers, Postsecondary

### Business/Marketing Education, B.S.

#### Requirements

Students interested in teaching can pursue a Bachelor of Science in Business/Marketing Education and a secondary teaching license through a joint program offered by the Information Systems and Technology Department and the School of Education. The Business/Marketing Education curriculum prepares students to teach business, marketing, and information technology in secondary schools.

### Total Program Credits: 122

#### Matriculation Requirements:

1. ENGL and MATH QL courses must have a grade C or higher.
2. GPA of 3.0 or higher with no grade lower than a C in content area courses.
3. Completion of all General Education requirements and 70% of content area courses.
4. Pass LiveScan Criminal Background Check.

#### General Education Requirements: 36 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENGH 1005</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Literacies and Composition Across Contexts CC</td>
<td>(5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>MATH 1055</td>
<td></td>
</tr>
<tr>
<td></td>
<td>College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

### Discipline Core Requirements: 83 Credits

Must be completed with a grade of B- or higher.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMED 4200</td>
<td>Methods of Teaching Business/Marketing/Digital Technology</td>
<td>3</td>
</tr>
<tr>
<td>IM 1010</td>
<td>Basic Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>IM 2100</td>
<td>Document Processing Applications</td>
<td>3</td>
</tr>
<tr>
<td>IM 2500</td>
<td>Graphic Applications</td>
<td>3</td>
</tr>
<tr>
<td>IM 2600</td>
<td>Spreadsheet Applications</td>
<td>3</td>
</tr>
<tr>
<td>IM 3700</td>
<td>Database Applications</td>
<td>3</td>
</tr>
<tr>
<td>INFO 1120</td>
<td>Information Systems and Technology Fundamentals</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Commerce Techniques for</td>
<td></td>
</tr>
</tbody>
</table>
Information Systems and Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 3660</td>
<td>Digital Marketing</td>
<td></td>
</tr>
<tr>
<td>MKTG 3680</td>
<td>Marketing with Social Media</td>
<td></td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 1200</td>
<td>Computer Programming I for IS IT</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2200</td>
<td>Computer Programming II for IS IT</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2420</td>
<td>Web Application Design</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2010</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>FIN 1060</td>
<td>Personal Finance SS</td>
<td>3</td>
</tr>
<tr>
<td>LEGL 3000</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3000</td>
<td>Organizational Behavior WE</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GI WE</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3600</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 1010</td>
<td>Introduction to Education</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 3000</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 325G</td>
<td>Equitable Technology Integration GI</td>
<td>2</td>
</tr>
<tr>
<td>EDSP 340G</td>
<td>Exceptional Students GI</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4200</td>
<td>Classroom Management I (Dance Education Majors take DANC 4430 in place of EDSC 4200)</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4250</td>
<td>Classroom Management II</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4440</td>
<td>Content Area Literacies (English Education Majors take ENGL 4210, 4420, and 4230 in place of EDSC 4440.)</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 445G</td>
<td>Multicultural Instruction ESL GI</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements: 3 Credits

Complete at least 3 credits from approved list of electives. See Department Advisor.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMED 4300</td>
<td>Methods of Teaching Computer Science (3)</td>
<td></td>
</tr>
<tr>
<td>IM 2300</td>
<td>Information Management Principles (3)</td>
<td></td>
</tr>
<tr>
<td>IM 3600</td>
<td>Advanced Excel for Decision Making (3)</td>
<td></td>
</tr>
<tr>
<td>INFO 2410</td>
<td>Database Fundamentals (3)</td>
<td></td>
</tr>
<tr>
<td>DGM 1110</td>
<td>Digital Media Essentials I (4)</td>
<td></td>
</tr>
<tr>
<td>DAGV 1200</td>
<td>3D Modeling Essentials (3)</td>
<td></td>
</tr>
<tr>
<td>IT 1510</td>
<td>Introduction to System Administration--Linux/UNIX (3)</td>
<td></td>
</tr>
<tr>
<td>IT 1600</td>
<td>Computer Architecture and Systems Software (3)</td>
<td></td>
</tr>
<tr>
<td>IT 1700</td>
<td>Cybersecurity Essentials (3)</td>
<td></td>
</tr>
<tr>
<td>IT 2600</td>
<td>Data Communication Fundamentals (3)</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of 122 semester credit hours with at least 40 credit hours in upper-division courses.
2. Overall Grade of 3.0 (B) or above with no grade lower than a C in major required content courses and no grade lower than a B- in Licensure and Methods courses.
3. Residency hours: Minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched (WE) courses.
Business/Marketing Education, B.S.

**Careers**

1. Create, analyze, revise, and implement curricula to prepare students to teach business and marketing education at the secondary level.
2. Facilitate the learning of dynamic subject matter in a diverse learning environment.
3. Maintain a solid foundation in general education content, business and marketing content, and professional education content.

**Related Careers**
- Business Teachers, Postsecondary
- Education Teachers, Postsecondary
- Vocational Education Teachers, Postsecondary
- Career/Technical Education Teachers, Middle School
- Career/Technical Education Teachers, Secondary School

Cybersecurity, Graduate Certificate

**Requirements**
The Graduate Certificate in Cybersecurity at Utah Valley University is a post-baccalaureate program for students who wish to complete advanced studies in the field of cybersecurity. This program is designed to provide students with advanced technical and managerial knowledge of cybersecurity, preparing them for senior technical and leadership roles in the field. Coursework includes a balanced approach, combining critical analysis of cybersecurity theory with hands-on education for essential applied cybersecurity techniques and tools. The program takes two semesters to complete the 18 credits of graduate level courses. Courses include cybersecurity operations, advanced network defense, cybersecurity management, case studies, secure coding, ethical hacking, and the legal and privacy implications of cybersecurity.

To be successful, students should have a strong background in technology. Students should have completed undergraduate work in a related field or have applicable work experience. For those who do not meet this requirement, select undergraduate courses are available to provide the foundational knowledge needed. Please contact the academic advisor for more information.

**Total Program Credits: 18**

**Matriculation Requirements:**
1. Application for admission to the program.
3. 2 years of IT or IT security industry experience (if Bachelor's degree in non-related field).
4. Completion of undergraduate courses in data communication, programming, and servers.

**Discipline Core Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 6300</td>
<td>Principles of Cybersecurity</td>
<td>3</td>
</tr>
<tr>
<td>IT 6330</td>
<td>Cybersecurity Operations</td>
<td>3</td>
</tr>
<tr>
<td>IT 6350</td>
<td>Law/Ethics/Privacy in Cybersecurity</td>
<td>3</td>
</tr>
<tr>
<td>IT 6370</td>
<td>Penetration Testing and</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 6660</td>
<td>Advanced Network Forensics (3.0)</td>
<td></td>
</tr>
<tr>
<td>IT 6740</td>
<td>Advanced Network Defense and Countermeasures (3.0)</td>
<td></td>
</tr>
<tr>
<td>IT 6760</td>
<td>Case Studies in Cybersecurity (3.0)</td>
<td></td>
</tr>
<tr>
<td>IT 6770</td>
<td>Cybersecurity Management (3.0)</td>
<td></td>
</tr>
<tr>
<td>IT 6780</td>
<td>Secure Coding (3.0)</td>
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</tr>
</tbody>
</table>

or other departmental approved electives

**Graduation Requirements:**
1. Completion of a minimum of 18 credits.
2. Overall grade point average of 3.0 (B) or above.
3. Residency hours -- minimum of 5 credit hours through course attendance at UVU.
4. Courses and project requirements must be finished within a five-year period. No courses will apply toward graduation which are older than five years.

Cybersecurity, Graduate Certificate

**Careers**

2. Describe and explain how to mitigate cyber security threats to enterprise, government, and individuals.
3. Explain the role of cyber security in the enterprise and how to integrate cyber security principles into existing processes.
4. Be aware of their responsibility to behave ethically in their professional lives (e.g., clients, customers, employers, society, profession, environment, and community).
5. Have a global perspective on legal and ethical issues surrounding cyber security and technology.

**Related Careers**
- Computer and Information Systems Managers
- Information Security Analysts
- Database Administrators
- Network and Computer Systems Administrators
- Computer Network Architects
- Computer Network Support Specialists

Information Management, B.S.

**Requirements**
The Bachelor of Science in Information Management is designed to prepare students to supervise and manage the operations and personnel of business offices. Courses include instruction in employee supervision, budgeting, scheduling and coordination, office systems operation and maintenance, office records management, public relations, project management, accounting, decision making, and human resources.
## Information Systems and Technology

**Total Program Credits: 120**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>36 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENGL 1010</strong> Introduction to Academic Writing CC</td>
<td>3</td>
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<tr>
<td>or <strong>ENGH 1005</strong> Literacies and Composition Across Context CC (5)</td>
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</tr>
<tr>
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<td>4</td>
</tr>
<tr>
<td>or <strong>MATH 1055</strong> College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
</tbody>
</table>

**Complete one of the following:**

- **HIST 2700** US History to 1877 AS (3)
- **HIST 2710** US History since 1877 AS (3)
- **HIST 1700** American Civilization AS (3)
- **HIST 1740** US Economic History AS (3)
- **POLS 1000** American Heritage SS (3)
- **POLS 1100** American National Government AS (3)

**Complete the following:**

- **PHIL 2050** Ethics and Values IH | 3 |
- **HLTH 1100** Personal Health and Wellness TE | 2 |
- or **EXSC 1097** Fitness for Life TE (2) | |

**Distribution Courses:**

- **ECON 2010** Principles of Economics I SS (fulfills Social/Behavioral Science) | 3 |
- Biology | 3 |
- Physical Science | 3 |
- Additional Biology or Physical Science | 3 |
- Humanities Distribution | 3 |
- Fine Arts Distribution | 3 |

**Discipline Core Requirements:**

**69 Credits**

| IM 1010 | Basic Computer Applications | 3 |
| IM 2100 | Document Processing Applications | 3 |
| IM 2300 | Information Management Principles | 3 |
| IM 2500 | Graphic Applications | 3 |
| IM 2600 | Spreadsheet Applications | 3 |
| IM 3700 | Database Applications | 3 |
| IM 481R | Internship | 3 |
| **INFO 1120** | Information Systems and Technology Fundamentals | 3 |
| **INFO 1200** | Computer Programming I for IS IT | 3 |
| **INFO 2200** | Computer Programming II for IS IT | 3 |
| **INFO 2410** | Database Fundamentals | 3 |
| **INFO 2420** | Web Application Design | 3 |
| **INFO 3430** | Systems Analysis and Design WE | 3 |
| **INFO 405G** | Global Ethical and Professional Perspectives in IS and IT GI WE | 3 |
| **ACC 2110** | Principles of Accounting I | 3 |
| **FIN 1060** | Personal Finance SS | 3 |

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>HR 3430</td>
<td>Introduction to Human Resource Management</td>
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<td>MGMT 3000</td>
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<td>MGMT 3600</td>
<td>Principles of Marketing</td>
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<tr>
<td>MGMT 220G</td>
<td>Written Business Communication GI WE</td>
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<tr>
<td>TECH 3400</td>
<td>Project Management WE</td>
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<tr>
<td>TECH 4400</td>
<td>Advanced Project Management</td>
<td>3</td>
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**Elective Requirements:**

- **15 Credits**
  - Complete at least 9 upper-division credits from a selected domain:
    - Business Intelligence Domain
      - **INFO 3120** Management Information Systems | 3 |
      - **INFO 3130** Introduction to Applied Data Analytics | 3 |
      - **INFO 3300** Web Systems Development | 3 |
      - **INFO 3330** Client-Side Web Development | 3 |
      - **INFO 4120** Data Visualization | 3 |
      - **INFO 4130** Data Science and Big Data Analytics | 3 |
    - Digital Marketing
      - **INFO 1000** E-Commerce Techniques for Small Business | 3 |
      - **IT 3350** Intellectual Property and Cyber Law | 3 |
      - **MKTG 3660** Digital Marketing | 3 |
      - **MKTG 3680** Marketing with Social Media | 3 |
      - **MKTG 3685** Content Marketing | 3 |
    - Mobile Development Domain
      - **INFO 3130** Introduction to Applied Data Analytics | 3 |
      - **INFO 3300** Web Systems Development | 3 |
      - **INFO 3330** Client-Side Web Development | 3 |
      - **INFO 4420** Mobile Application Development | 3 |
      - **DGM 1110** Digital Media Essentials I | 4 |
      - **DWDD 2410** Interaction Design |
      - **DWDD 1430** Principles of Digital Design |
    - Programming
      - **IT 1200** Scripting for Administrators | 3 |
      - **IT 1510** Introduction to System Administration-Linux/UNIX | 3 |
      - **IT 1600** Computer Architecture and Systems Software | 3 |
      - **IT 2600** Data Communication Fundamentals | 3 |
    - Web Systems Development Domain
      - **INFO 3300** Web Systems Development | 3 |
      - **INFO 3330** Client-Side Web Development | 3 |
      - **INFO 3360** Server-Side Web Frameworks | 3 |
      - **INFO 4425** Web Application Security | 3 |
Information Systems and Technology

INFO 4300  Enterprise Web Development (3)
Complete at least 9 credits from the following electives or from courses in above domains.  9
IM 2800  Integrated Software Projects (3)
IM 3600  Advanced Excel for Decision Making (3)
IM 490R  Advanced Topics in Information Management (1-3)
IM 496R  Information Management Seminar (1-3)
INFO 3410  Database Systems and Warehousing (3)
IT 1700  Cybersecurity Essentials (3)
ACC 1150  Fundamentals of Business Math (3)
COMM 2110  Interpersonal Communication SS (3)
HM 3210  Event Venue and Convention Management (3)
TECH 2030  Inclusive Leadership SS (3)
TECH 3010  Creativity Innovation and Change Management (3)
TECH 4400  Advanced Project Management (3)
Other department approved classes

Graduation Requirements:
1. Completion of the 120 semester credit hours required in the degree with at least 40 credit hours in upper-division courses.
2. Overall grade point average 2.75 or above with no grade lower than a "C-" in core, domain, and elective courses.
3. Residency hours: Minimum of 30 credit hours through course attendance at UVU, at least 10 hours earned in the last 45 hours.
4. Completion of all prerequisite courses. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched (WE) courses.

NOTE: The UVU catalog contains the descriptions and prerequisites for all courses. Not all courses are offered every semester.

Information Management, B.S.

Careers
1. Clearly explain information and concepts in written, electronic, and verbal forms.
2. Explain and apply business and information management principles when solving problems.
3. Demonstrate a continued interest in maintaining and updating technical skills required by business and industry.
4. Have a global perspective on legal and ethical issues surrounding information management and technology.

Related Careers
- First-Line Supervisors of Office and Administrative Support Workers

Information Systems - Application Development Emphasis, B.S.

Requirements
The BS in Information Systems program prepares students to be Information Systems professionals. Graduates develop and deploy enterprise-level systems to meet organizational needs.

Total Program Credits: 123

General Education Requirements: 36 Credits
- ENGL 1010 Introduction to Academic Writing CC (3)
or  ENGH 1005 Literacies and Composition Across Contexts CC (5)
- ENGL 2010 Intermediate Academic Writing CC (3)
- MATH 1050 College Algebra QL (4)
or  MATH 1055 College Algebra with Preliminaries QL (5)

American Institutions: Complete one of the following: 3
- HIST 2700 US History to 1877 AS (3)
and  HIST 2710 US History since 1877 AS (3)
- HIST 1700 American Civilization AS (3)
- HIST 1740 US Economic History AS (3)
- POLS 1000 American Heritage SS (3)
- POLS 1100 American National Government AS (3)

Complete the following: 6
- PHIL 2050 Ethics and Values IH (3)
or  HLTH 1100 Personal Health and Wellness TE (2)
- HIST 2050 US History since 1877 AS (3)
or  EXSC 1097 Fitness for Life TE (2)

Distribution Courses: 36 Credits
- Biology Distribution 3
- Physical Science Distribution 3
- An Additional Biology or Physical Science Distribution Course 3
- Fine Arts Distribution 3
- Humanities Distribution 3
- Social/Behavioral Science Distribution 3

Discipline Core Requirements: 63 Credits
- Math Requirement: 3
  MGMT 2340 Business Statistics I (3)
- IS Core Requirements:
  - INFO 1120 Information Systems and Technology Fundamentals (3)
  - INFO 1200 Computer Programming I for IS IT (3)
or  CS 1400 Fundamentals of Programming (3)
  - INFO 2200 Computer Programming II for IS IT (3)
  - INFO 2410 Database Fundamentals (3)
  - INFO 2420 Web Application Design (3)
  - IM 2600 Spreadsheet Applications (3)
  - IT 1510 Introduction to System Administration--Linux/UNIX (3)
Information Systems and Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>IT 2600</td>
<td>Data Communication Fundamentals</td>
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<tr>
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<td>Information Security Fundamentals</td>
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</tr>
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<td>Web Systems Development</td>
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<tr>
<td>INFO 3410</td>
<td>Database Systems and Warehousing</td>
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<tr>
<td>INFO 3430</td>
<td>Systems Analysis and Design WE</td>
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<tr>
<td>INFO 405G</td>
<td>Global Ethical and Professional Perspectives in IS and IT GI WE</td>
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<td>INFO 4430</td>
<td>Systems Design and Implementation</td>
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IS Environment/Business Foundation Requirements:

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<tr>
<td>ACC 2010</td>
<td>Financial Accounting</td>
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<td>ACC 2020</td>
<td>Managerial Accounting</td>
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<td>MKTG 220G</td>
<td>Written Business Communication GI WE</td>
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<tr>
<td>MGMT 3000</td>
<td>Organizational Behavior WE</td>
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<td>MKTG 3600</td>
<td>Principles of Marketing</td>
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Emphasis Requirements: 15 Credits

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<td>INFO 3330</td>
<td>Client-Side Web Development</td>
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<td>Server-Side Web Frameworks</td>
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<td>INFO 4420</td>
<td>Mobile Application Development</td>
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<td>INFO 4425</td>
<td>Web Application Security</td>
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<td>Enterprise Web Development</td>
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Emphasis Elective Requirements: 9 Credits

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<td>INFO 4120</td>
<td>Data Visualization (3)</td>
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<td>INFO 481R</td>
<td>Internship (3)</td>
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<tr>
<td>CS 2550</td>
<td>Web Programming I (3)</td>
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<td>CS 3270</td>
<td>Python Software Development (3)</td>
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<td>Human Factors in Software Development (3)</td>
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<tr>
<td>CS 3660</td>
<td>Web Programming II (3)</td>
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</table>

Other approved upper-division Information Systems courses

Notes:

1. ECON 2010 Principles of Economics I recommended.

Graduation Requirements:

1. Completion of at least 123 semester credits required in the BS degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all discipline core, specialty core, and elective courses with no grade lower than a “C-.”
3. Residency hours: Minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.

Information Systems - Application Development Emphasis, B.S.

Careers

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program’s discipline.
6. Support the delivery, use, and management of information systems within an information systems environment.

Related Careers

- Computer Programmers
- Software Developers, Applications
- Software Developers, Systems Software

Information Systems - Business Intelligence Systems Emphasis, B.S.

Requirements

The BS in Information Systems program prepares students to be Information Systems professionals. Graduates develop and deploy enterprise-level systems to meet organizational needs. The Business Intelligence Systems (BIS) emphasis prepares graduates to become business intelligence analysts who produce financial and marketing intelligence by querying data repositories, generating reports, and devising methods for identifying data patterns and trends. Organizations store an enormous amount of data. People who are able to perform data mining and can analyze the data to detect trends and form predictions are highly sought by national and regional organizations.

Total Program Credits: 123

General Education Requirements: 36 Credits

<table>
<thead>
<tr>
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<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<td>or MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
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American Institutions: Complete one of the following: 3

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>HIST 2700</td>
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<td>and HIST 2710</td>
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<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH (3)</td>
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<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
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<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
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Distribution Courses:

Total Program Credits: 123
### Emphasis Elective Requirements:

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<th>Course</th>
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<tbody>
<tr>
<td>INFO 3360</td>
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<td>MKTG 4300</td>
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</table>

Other approved upper-division Information Systems courses

### Notes:

1. ECON 2010 Principles of Economics I recommended.

### Graduation Requirements:

1. Completion of at least 123 semester credits required in the BS degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all discipline core, specialty core, and elective courses with no grade lower than a "C-.
3. Residency hours: Minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.

### Information Systems and Technology

#### Emphasis, B.S.

**Careers**

1. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet the needs of an organization and its users.
2. An ability to analyze a problem, and identify and define computing requirements appropriate to its solution.
3. An ability to analyze the local and global impact of computing on individuals, organizations, and society.
4. An ability to apply knowledge of computing and mathematics appropriate to Information Systems.
5. An ability to assist in the creation and management of an effective project plan.
6. An ability to communicate effectively with a range of audiences, both in written and oral forms.
7. An ability to function effectively on teams to accomplish a common goal.
8. An ability to use current techniques, skills, and tools necessary for Information Systems.
9. An understanding of processes that support the delivery and management of Information Systems within a specific application environment. 10--An understanding of professional, ethical, legal, security, and social issues and responsibilities related to Information Systems. 11—Recognition of the need for, and an ability to engage in, continuing professional developments.

### Related Careers

- Computer and Information Systems Managers
- Computer and Information Research Scientists
- Software Developers, Systems Software
- Computer Occupations, All Other
- Computer Science Teachers, Postsecondary
Information Systems and Technology

Information Systems - Information Security Management Emphasis, B.S.

Requirements

Managing the security of information systems is extremely important for all types of organizations to protect the systems from data breaches. The BS in Information Systems program prepares students to be Information Systems professionals. Graduates develop and deploy enterprise-level systems to meet organizational needs. The Information Security Management (ISM) emphasis prepares students for information technology management and information security analyst positions.

Total Program Credits: 123

General Education Requirements: 36 Credits

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<tr>
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Distribution Courses:

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<th>Credits</th>
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<tr>
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<td>Physical Science Distribution</td>
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<td>An Additional Biology or Physical Science Distribution Course</td>
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<td>Fine Arts Distribution</td>
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<td>Humanities Distribution</td>
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<tr>
<td>Social/Behavioral Science Distribution</td>
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Discipline Core Requirements: 63 Credits

Math Requirement:

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<tbody>
<tr>
<td>MGMT 2340</td>
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IS Core Requirements:

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<th>Title</th>
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<tr>
<td>INFO 1120</td>
<td>Information Systems and Technology Fundamentals</td>
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<td>INFO 1200</td>
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<tr>
<td>or</td>
<td>CS 1400 Fundamentals of Programming (3)</td>
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<td>INFO 2200</td>
<td>Computer Programming II for IS IT</td>
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<td>INFO 2410</td>
<td>Database Fundamentals</td>
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<td>Spreadsheet Applications</td>
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<td>Introduction to System Administration-- Linux/UNIX</td>
<td>3</td>
</tr>
<tr>
<td>IT 2600</td>
<td>Data Communication Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>IT 2700</td>
<td>Information Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3130</td>
<td>Introduction to Applied Data Analytics</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3300</td>
<td>Web Systems Development</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3410</td>
<td>Database Systems and Warehousing</td>
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</tr>
<tr>
<td>INFO 3430</td>
<td>Systems Analysis and Design WE</td>
<td>3</td>
</tr>
<tr>
<td>INFO 405G</td>
<td>Global Ethical and Professional Perspectives in IS and IT GI WE</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4430</td>
<td>Systems Design and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2010</td>
<td>Financial Accounting</td>
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<td>ACC 2020</td>
<td>Managerial Accounting</td>
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<tr>
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<td>Written Business Communication GI WE</td>
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<td>MGMT 3000</td>
<td>Organizational Behavior WE</td>
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<tr>
<td>MKTG 3600</td>
<td>Principles of Marketing</td>
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Emphasis Requirements: 15 Credits

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>INFO 4410</td>
<td>Database Administration</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4135</td>
<td>Data Security Analytics</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4415</td>
<td>Database Security and Auditing</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4425</td>
<td>Web and Application Security</td>
<td>3</td>
</tr>
<tr>
<td>IT 4700</td>
<td>Enterprise Cybersecurity Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Emphasis Elective Requirements: 9 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 3350</td>
<td>Intellectual Property and Cyber Law</td>
<td>3</td>
</tr>
<tr>
<td>IT 4750</td>
<td>Information Technology Operations Capstone</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3330</td>
<td>Client-Side Web Development</td>
<td>3</td>
</tr>
<tr>
<td>INFO 3360</td>
<td>Server-Side Web Framework</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4300</td>
<td>Enterprise Web Development</td>
<td>3</td>
</tr>
<tr>
<td>INFO 481R</td>
<td>Internship</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Other approved upper-division Information Systems courses</td>
<td></td>
</tr>
</tbody>
</table>

Notes:

1. ECON 2010 Principles of Economics I recommended.

Graduation Requirements:

1. Completion of at least 123 semester credits required in the BS degree: at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all discipline core, specialty core, and elective courses with no grade lower than a "C-".
3. Residency hours: Minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.

**Information Systems - Information Security Management Emphasis, B.S.**

**Careers**

1. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet the needs of an organization and its users.
2. An ability to analyze a problem, and identify and define computing requirements appropriate to its solution.
3. An ability to analyze the local and global impact of computing on individuals, organizations, and society.
4. An ability to apply knowledge of computing and mathematics appropriate to Information Systems.
5. An ability to assist in the creation and management of an effective project plan.
6. An ability to communicate effectively with a range of audiences, both in written and oral forms.
7. An ability to function effectively on teams to accomplish a common goal.
8. An ability to use current techniques, skills, and tools necessary for Information Systems.
9. An understanding of processes that support the delivery and management of Information Systems within a specific application environment.
10. An understanding of professional, ethical, legal, security, and social issues and responsibilities related to Information Systems.
11. Recognition of the need for, and an ability to engage in, continuing professional developments.

**Related Careers**

- Computer and Information Systems Managers
- Computer and Information Research Scientists
- Software Developers, Systems Software
- Computer Occupations, All Other
- Computer Science Teachers, Postsecondary

**Information Technology - Network Administration and Security Emphasis, B.S.**

**Requirements**

Electronic data is often used as evidence in court. Forensic specialists learn how to identify, preserve, and extract data from electronic devices, such as computers and smart phones. The Bachelor of Science in Information Technology (IT) degree prepares students to install, manage, and maintain the computing infrastructure on which organizational systems run. The Computer Forensics and Security emphasis provides students with a solid foundation for employment by government or corporate sector to work in a computer forensics lab as a forensic analyst or in information security.

**Total Program Credits: 122**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>38 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 1055 College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2700 US History to 1877 AS (3.0)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>and HIST 2710 US History since 1877 AS (3.0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1700 American Civilization AS (3.0)</td>
</tr>
<tr>
<td>HIST 1740 US Economic History AS (3.0)</td>
</tr>
<tr>
<td>POLS 1000 American Heritage SS (3.0)</td>
</tr>
<tr>
<td>POLS 1000 (recommended for Forensics emphasis)</td>
</tr>
<tr>
<td>POLS 1100 American National Government AS (3.0)</td>
</tr>
</tbody>
</table>

Complete the following:

| PHIL 2050 Ethics and Values IH | 3 |
|--------------------------------|
| HLTH 1100 Personal Health and Wellness TE | 2 |
| or EXSC 1097 Fitness for Life TE (2) | |

**Distribution Courses:**

| Biology Distribution | 3 |
|----------------------|
| Physical Science Distribution | 3 |
| PHYS 2010 College Physics I PP | 4 |

and

| PHYS 2015 College Physics I Lab (fulfills Additional Biology or Physical Science Distribution) | 1 |
|---------------------------------------------|

| Fine Arts Distribution | 3 |
|------------------------|
| ENGL 2100 Technical Communication HH WE | 3 |
| Social/Behavioral Science Distribution 1 | 3 |

**Discipline Core Requirements:**

<table>
<thead>
<tr>
<th>69 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math Requirement:</td>
</tr>
<tr>
<td>CS 2300 Discrete Mathematical Structures I</td>
</tr>
<tr>
<td>STAT 2050 Introduction to Statistical Methods</td>
</tr>
<tr>
<td>and MGMT 2340 Business Statistics I</td>
</tr>
<tr>
<td>IT Core Requirements:</td>
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<tr>
<td>INFO 1120 Information Systems and Technology Fundamentals</td>
</tr>
<tr>
<td>INFO 1200 Computer Programming I for IS IT</td>
</tr>
<tr>
<td>IT 1510 Introduction to System Administration--Linux/UNIX</td>
</tr>
<tr>
<td>IT 1600 Computer Architecture and Systems Software</td>
</tr>
<tr>
<td>INFO 2200 Computer Programming II for IS IT</td>
</tr>
<tr>
<td>INFO 2410 Database Fundamentals</td>
</tr>
<tr>
<td>IT 2530 Introduction to System Administration--Windows Client</td>
</tr>
<tr>
<td>IT 2600 Data Communication Fundamentals</td>
</tr>
<tr>
<td>and CS 2600 Computer Networks I (3)</td>
</tr>
<tr>
<td>IT 2700 Information Security Fundamentals</td>
</tr>
<tr>
<td>INFO 3300 Web Systems Development</td>
</tr>
<tr>
<td>INFO 3430 Systems Analysis and Design WE</td>
</tr>
<tr>
<td>IT 3510 Advanced System Administration--Linux/UNIX</td>
</tr>
<tr>
<td>IT 3530 Advanced System Administration--Windows Server</td>
</tr>
<tr>
<td>IT 3600 Internetworking and Router Management</td>
</tr>
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</table>
Information Systems and Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 3700</td>
<td>Ethical Hacking and Countermeasures</td>
<td>3</td>
</tr>
<tr>
<td>INFO 405G</td>
<td>Global Ethical and Professional Perspectives in IS and IT GI WE</td>
<td>3</td>
</tr>
<tr>
<td>IT 4600</td>
<td>Enterprise Network Architectures and Administration</td>
<td>3</td>
</tr>
<tr>
<td>IT 4700</td>
<td>Enterprise Information Security Management</td>
<td>3</td>
</tr>
<tr>
<td>IT 4750</td>
<td>Network Security and Operations Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>

IT Application Domain Requirement: 6

Two specified courses to provide students with knowledge of an application domain of their choice and interest. (See department advisor for list of approved courses.)

Some possible application domains are:

- Accounting/IT Auditor
- Business
- Communications
- Computer Science
- Construction
- Criminal Justice (Choose this domain for Computer Forensics and Security emphasis)
- Forensics
- Geographic Information Systems
- Health professions
- Hospitality Management
- Manufacturing/Production
- Military Science
- Multimedia/Digital Media
- Physical Sciences
- Social Sciences

Emphasis Requirements: 9 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 2800</td>
<td>Computer Forensic Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>IT 3350</td>
<td>Intellectual Property and Cyber Law</td>
<td>3</td>
</tr>
<tr>
<td>IT 4800</td>
<td>Advanced Mobile Devices Forensics</td>
<td>3</td>
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Emphasis Elective Requirements: 6 Credits

Complete 6 credit hours from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>INFO 3330</td>
<td>Client-Side Web Development (3)</td>
<td></td>
</tr>
<tr>
<td>INFO 3360</td>
<td>Server-Side Web Frameworks (3)</td>
<td></td>
</tr>
<tr>
<td>INFO 3410</td>
<td>Database Systems and Warehousing (3)</td>
<td></td>
</tr>
<tr>
<td>INFO 4135</td>
<td>Data Security Analytics (3)</td>
<td></td>
</tr>
<tr>
<td>INFO 4415</td>
<td>Database Security and Auditing (3)</td>
<td></td>
</tr>
<tr>
<td>INFO 4425</td>
<td>Web and Application Security (3)</td>
<td></td>
</tr>
<tr>
<td>IT 3540</td>
<td>Mac OS and Server Support (3)</td>
<td></td>
</tr>
<tr>
<td>IT 459R</td>
<td>Current Topics in Information Technology (3)</td>
<td></td>
</tr>
<tr>
<td>IT 481R</td>
<td>Internship (1-8)</td>
<td></td>
</tr>
<tr>
<td>CS 3270</td>
<td>Python Software Development (3)</td>
<td></td>
</tr>
</tbody>
</table>

Other approved upper-division Information Technology and Information Systems courses

Notes:

1. CJ 1010 Introduction to Criminal Justice SS for Forensics emphasis
2. For the Computer Forensics and Security emphasis, the following 2 courses are required: CJ 1330 Criminal Law and CJ 1340 Criminal Investigations.

Graduation Requirements:

1. Completion of at least 122 semester credits required in the BS degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all discipline core, specialty core, and elective courses with no grade lower than a "C-".
3. Residency hours: Minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Completion of GE global intercultural requirement. INFO 405G satisfies this requirement.
6. Successful completion of at least one Global/Intercultural course.
7. Successful completion of at least two Writing Enriched (WE) courses.

Information Technology - Network Administration and Security Emphasis, B.S.

Careers

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program’s discipline.
6. Use systemic approaches to select, develop, apply, integrate, and administer secure computing technologies to accomplish user goals.

Related Careers

- Computer Systems Analysts
- Information Security Analysts
- Computer Network Architects
- Computer Network Support Specialists

Information Technology - Network Administration and Security Emphasis, B.S.

Requirements

Every organization uses some form of information technology to perform its operations. The Bachelor of Science in Information Technology (IT) degree prepares students to install, manage, and maintain the computing infrastructure on which organizational systems run. The Network Administration and Security emphasis prepares students to work as data communication consultants, information security analysts, and network administrators. The core of the BS IT program prepares students to have a strong foundation in computer architecture, data communication, information security, networks, and system administration.

Total Program Credits: 122
### General Education Requirements: 38 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
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Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3.0)</td>
<td></td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3.0)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3.0)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3.0)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3.0) (recommended for Forensics emphasis)</td>
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<tr>
<td>POLS 1100</td>
<td>American National Government AS (3.0)</td>
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Complete the following:

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
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</table>

**Distribution Courses:**

<table>
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<tr>
<th>Distribution</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Biology Distribution</td>
<td></td>
</tr>
<tr>
<td>Physical Science Distribution</td>
<td></td>
</tr>
<tr>
<td>PHYS 2010 College Physics I PP</td>
<td>4</td>
</tr>
<tr>
<td>and PHYS 2015 College Physics I Lab (fulfills Additional Biology or Physical Science Distribution)</td>
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</tr>
<tr>
<td>Fine Arts Distribution</td>
<td>3</td>
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<tr>
<td>ENGL 2100 Technical Communication HH WE</td>
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<tr>
<td>Social/Behavioral Science Distribution</td>
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**Discipline Core Requirements:** 69 Credits

**Math Requirement:**

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<th>Course Title</th>
<th>Credits</th>
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</thead>
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<td>CS 2300</td>
<td>Discrete Mathematical Structures I</td>
<td>3</td>
</tr>
<tr>
<td>STAT 2050</td>
<td>Introduction to Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>or MGMT 2340</td>
<td>Business Statistics I</td>
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</table>

**IT Core Requirements:**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>INFO 1120</td>
<td>Information Systems and Technology Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INFO 1200</td>
<td>Computer Programming I for IS IT</td>
<td>3</td>
</tr>
<tr>
<td>IT 1510</td>
<td>Introduction to System Administration--Linux/UNIX</td>
<td>3</td>
</tr>
<tr>
<td>IT 1600</td>
<td>Computer Architecture and Systems Software</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2200</td>
<td>Computer Programming II for IS IT</td>
<td>3</td>
</tr>
<tr>
<td>INFO 2410</td>
<td>Database Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>IT 2530</td>
<td>Introduction to System Administration--Windows Client</td>
<td>3</td>
</tr>
<tr>
<td>IT 2600</td>
<td>Data Communication Fundamentals</td>
<td>3</td>
</tr>
</tbody>
</table>

**IT Application Domain Requirement:** 6

Two specified courses to provide students with knowledge of an application domain of their choice and interest. (See department advisor for list of approved courses.)

Some possible application domains are:

- Accounting/IT Auditor
- Business
- Communications
- Computer Science
- Construction
- Criminal Justice (Choose this domain for Computer Forensics and Security emphasis)
- Forensics
- Geographic Information Systems
- Health professions
- Hospitality Management
- Manufacturing/Production
- Military Science
- Multimedia/Digital Media
- Physical Sciences
- Social Sciences

**Emphasis Requirements:** 6 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 2400</td>
<td>Voice and Data Cabling Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INFO 4425</td>
<td>Web Application Security</td>
<td>3</td>
</tr>
</tbody>
</table>

**Emphasis Elective Requirements:** 9 Credits

Complete 9 credit hours from the following (6 credits must be 3000 or higher):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 3330</td>
<td>Client-Side Web Development</td>
<td></td>
</tr>
<tr>
<td>INFO 3360</td>
<td>Server-Side Web Frameworks</td>
<td></td>
</tr>
<tr>
<td>INFO 3410</td>
<td>Database Systems and Warehousing</td>
<td></td>
</tr>
</tbody>
</table>

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*Course Catalog 2023-2024*
### Information Systems and Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO 4135</td>
<td>Data Security Analytics</td>
<td>(3)</td>
</tr>
<tr>
<td>INFO 4410</td>
<td>Database Administration</td>
<td>(3)</td>
</tr>
<tr>
<td>INFO 4415</td>
<td>Database Security and Auditing</td>
<td>(3)</td>
</tr>
<tr>
<td>INFO 459R</td>
<td>Current Topics in Information Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>IT 3350</td>
<td>Intellectual Property and Cyber Law</td>
<td>(3)</td>
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<td>IT 3540</td>
<td>Mac OS and Server Support</td>
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<td>IT 459R</td>
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<tr>
<td>IT 481R</td>
<td>Internship</td>
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</tr>
<tr>
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<td>Python Software Development</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>Other approved upper-division Information Technology and Information Systems courses</td>
<td></td>
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</table>

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2. For the Computer Forensics and Security emphasis, the following 2 courses are required: CJ 1330 Criminal Law and CJ 1340 Criminal Investigations.

### Graduation Requirements:

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4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Completion of GE global intercultural requirement. INFO 405G satisfies this requirement.
6. Successful completion of at least one Global/Intercultural course.
7. Successful completion of at least two Writing Enriched (WE) courses.

### Information Technology - Network Administration and Security Emphasis, B.S.

#### Careers

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program’s discipline.
6. Use systemic approaches to select, develop, apply, integrate, and administer secure computing technologies to accomplish user goals.

#### Related Careers

- Computer Systems Analysts
- Information Security Analysts
- Computer Network Architects
- Computer Network Support Specialists
Integrated Studies

Integrated Studies

The Integrated Studies department is in the College of Humanities & Social Sciences. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Integrated Studies department, visit their website.

Integrated Studies department

FACULTY
ABBOTT, Scott Professor
ABUNUWARA, Kim Associate Professor
JACKSON, Gregory Richard Associate Professor

Course Descriptions

Integrated Studies

Course Descriptions

Integrated Studies, B.A.

Requirements

The individualized nature of the Integrated Studies degree is attractive to students with multiple interests. Students integrate course work in emphases such as biology, earth science, business, health, literature, languages, communication, philosophy, psychology, sociology, anthropology, and the arts. Emphases from computer science and information systems, accounting, technology management, and physical education are also offered as part of this degree.

Total Program Credits: 120

Graduation Requirements:

- Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
- Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
- Completion of GE and specified departmental requirements;
- Completion of a minimum of 120 semester credits; a minimum of 40 credits must be upper-division.
- Successful completion of at least one Global/Intercultural course.

Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
<td></td>
</tr>
</tbody>
</table>

- Complete one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>EXSC 1097</td>
<td>Fitness for Life TE</td>
<td>2</td>
</tr>
</tbody>
</table>

Completing a second, different, approved Minor

Some minors require more than 18 credits to complete. Any minor requirements beyond 18 credits may count toward electives.

Elective Requirements:

- Complete any 1000-level, or higher, courses

Graduation Requirements:

1. Completion of a minimum of 120 semester credits; a minimum of 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements: students must have "C" or higher in the Discipline Core courses (except for the Foreign Language classes).
5. For the BA degree, completion of 16 credit hours of course work from one language to include the 1010, 1020, 2010, and 202G/2020 course fulfills Humanities Distribution.
6. Successful completion of at least one Global/Intercultural course.
7. Complete Integrated Studies graduating student survey.

Available Minors:

- Complete one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td></td>
</tr>
</tbody>
</table>

- Complete one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
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<td></td>
</tr>
<tr>
<td>HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td></td>
</tr>
</tbody>
</table>
Integrated Studies

**A**
- ACCOUNTING, MINOR
- AMERICAN INDIAN STUDIES, MINOR
- AMERICAN STUDIES, MINOR
- ANTHROPOLOGY, MINOR
- APPLIED COMMUNICATION, MINOR
- APPLIED DATA ANALYTICS, MINOR
- ART HISTORY, MINOR
- AUTISM STUDIES, MINOR

**B**
- BIOLOGY, MINOR
- BUSINESS INFORMATION TECHNOLOGY, MINOR
- BUSINESS MANAGEMENT, MINOR

**C**
- CHEMISTRY, MINOR
- CHINESE COMMERCE, MINOR
- CHINESE LANGUAGE, MINOR
- CHINESE STUDIES, MINOR
- CINEMA AND MEDIA STUDIES, MINOR
- CLASSICAL STUDIES, MINOR
- COMMUNITY HEALTH EDUCATION, MINOR
- COMPUTER SCIENCE, MINOR
- CONSTITUTIONAL STUDIES, MINOR
- CRIMINAL JUSTICE, MINOR

**D**
- DEAF STUDIES, MINOR
- DIGITAL MEDIA, MINOR

**E**
- EARTH SCIENCE, MINOR
- ECONOMICS, MINOR
- ENGLISH CREATIVE WRITING, MINOR
- ENGLISH LITERARY STUDIES, MINOR
- ENTREPRENEURSHIP, MINOR
- ENVIRONMENTAL STUDIES, MINOR
- ETHICS, MINOR
- EVENT PLANNING, MINOR
- EXERCISE SCIENCE, MINOR

**F**
- FAMILY SCIENCE, MINOR
- FINANCE, MINOR
- FORENSIC SCIENCE, MINOR
- FRENCH, MINOR

**G**
- GENDER STUDIES, MINOR
- GEOGRAPHY, MINOR
- GERMAN, MINOR

**H**
- HISTORY, MINOR
- HUMAN RESOURCE MANAGEMENT, MINOR
- HUMANITIES, MINOR

**I**
- INFORMATION SYSTEMS AND TECHNOLOGY, MINOR

**L**
- LANGUAGES, MINOR
- LATIN AMERICAN STUDIES, MINOR

**M**
- MARKETING, MINOR
- MATHEMATICS, MINOR
- MUSIC, MINOR

**N**
- NATIONAL SECURITY STUDIES, MINOR

**O**
- OUTDOOR RECREATION, MINOR

**P**
- PEACE AND JUSTICE STUDIES, MINOR
- PHILOSOPHY, MINOR
- PHYSICS, MINOR
- POLITICAL SCIENCE, MINOR
- PORTUGUESE, MINOR
- PSYCHOLOGY, MINOR
- PUBLIC RELATIONS AND STRATEGIC COMMUNICATION, MINOR

**R**
- RELIGIOUS STUDIES, MINOR
- RISK MANAGEMENT, MINOR
- RUSSIAN STUDIES, MINOR

**S**
- SCHOOL HEALTH EDUCATION, MINOR
- SOCIOLOGY, MINOR
- SPANISH FOR THE PROFESSIONS--TRANSLATION/INTERPRETING, MINOR
- SPANISH, MINOR

**T**
- TECHNICAL COMMUNICATION, MINOR
- TECHNOLOGY MANAGEMENT, MINOR
- THEATRE ARTS, MINOR

**W**
- WRITING STUDIES, MINOR

Integrated Studies, B.A.

**Careers**

1. Graduates will be able to gather and analyze information to develop a Capstone Thesis which incorporates knowledge from their two (or three) emphasis areas, upper division theory courses, and Integrated Studies topics courses.

2. Graduates will be able to discuss and defend their Capstone Thesis/Project with particular attention to how concepts from their emphases are incorporated through work on a problem that requires interdisciplinary tools.

3. Graduates will be able to apply research and writing skills to demonstrate informational and technical literacy.

**Related Careers**

- NO MATCH

Integrated Studies, B.S.

**Requirements**

The individualized nature of the Integrated Studies degree is attractive to students with multiple interests. Students integrate course work in emphases such as biology, earth science, business, health, literature, languages, communication, philosophy, psychology, sociology, anthropology, and the arts. Emphases from computer science and
information systems, accounting, technology management, and physical education are also offered as part of this degree.

**Total Program Credits: 120**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
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</thead>
<tbody>
<tr>
<td>Complete the following:</td>
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<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
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<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
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<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
<td></td>
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<tr>
<td>MATH 1050 College Algebra QL (4)</td>
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<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
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<tr>
<td>MATH 1090 College Algebra for Business QL (3)</td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700 American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
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<td></td>
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<td>or HLTH 1100 Personal Health and Wellness TE</td>
<td>2</td>
</tr>
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</tr>
<tr>
<td>Distribution Courses</td>
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</tr>
<tr>
<td>Biology</td>
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<tr>
<td>Physical Science</td>
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</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
</tr>
<tr>
<td>Discipline Core Requirements:</td>
<td>18 Credits</td>
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<tr>
<td>IS 2000 Knowledge Integrated</td>
<td>3</td>
</tr>
<tr>
<td>IS 300R Introductory Topics in Integrated Studies</td>
<td>3</td>
</tr>
<tr>
<td>IS 350R Topics in Integrated Studies</td>
<td>3</td>
</tr>
<tr>
<td>One additional section of 300R or 350R</td>
<td>3</td>
</tr>
<tr>
<td>IS 4980 Integrated Studies Capstone I WE</td>
<td>3</td>
</tr>
<tr>
<td>IS 4990 Integrated Studies Capstone II WE</td>
<td>3</td>
</tr>
<tr>
<td>Emphasis Requirements:</td>
<td>36 Credits</td>
</tr>
<tr>
<td>Complete 1 approved Minor</td>
<td>18</td>
</tr>
<tr>
<td>Complete a second, different, approved Minor</td>
<td>18</td>
</tr>
<tr>
<td>Some minors require more than 18 credits to complete. Any minor requirements beyond 18 credits may count toward electives</td>
<td></td>
</tr>
<tr>
<td>Elective Requirements:</td>
<td>31 Credits</td>
</tr>
<tr>
<td>Complete any 1000-level, or higher course</td>
<td>31</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits; a minimum of 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements; students must have "C-" or higher in the Discipline Core courses (except for the Foreign Language classes).
5. Successful completion of at least one Global/Intercultural course.

**Available Minors:**

**A**

- ACCOUNTING, MINOR
- AMERICAN INDIAN STUDIES, MINOR
- AMERICAN STUDIES, MINOR
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- APPLIED COMMUNICATION, MINOR
- APPLIED DATA ANALYTICS, MINOR
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- CHINESE LANGUAGE, MINOR
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- CONSTITUTIONAL STUDIES, MINOR
- CRIMINAL JUSTICE, MINOR

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- DEAF STUDIES, MINOR
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**E**

- EARTH SCIENCE, MINOR
- ECONOMICS, MINOR
- ENGLISH CREATIVE WRITING, MINOR
- ENGLISH LITERARY STUDIES, MINOR
- ENTREPRENEURSHIP, MINOR
- ENVIRONMENTAL STUDIES, MINOR
- ETHICS, MINOR
Integrated Studies

- EVENT PLANNING, MINOR
- EXERCISE SCIENCE, MINOR

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- FAMILY SCIENCE, MINOR
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- FORENSIC SCIENCE, MINOR
- FRENCH, MINOR
- GENDER STUDIES, MINOR
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- LANGUAGES, MINOR
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M
- MARKETING, MINOR
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- TECHNOLOGY MANAGEMENT, MINOR
- THEATRE ARTS, MINOR

W
- WRITING STUDIES, MINOR

---

### Integrated Studies, B.S.

**Careers**

1. Graduates will be able to gather and analyze information to develop a Capstone Thesis which incorporates knowledge from their two (or three) emphasis areas, upper division theory courses, and Integrated Studies topics courses.

2. Graduates will be able to discuss and defend their Capstone Thesis/Project with particular attention to how concepts from their emphases are incorporated through work on a problem that requires interdisciplinary tools.

3. Graduates will be able to apply research and writing skills to demonstrate informational and technical literacy.

**Related Careers**

- NO MATCH
Languages and Cultures

Languages and Cultures

The Languages and Cultures department is in the College of Humanities & Social Sciences. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Languages and Cultures department, visit their website.

Languages and Cultures department

DEPARTMENT CHAIR
ELDREDGE, Bryan K. Professor

FACULTY
BALLARD, Michael B. Assistant Professor
BRISCOE, Gregory G. Associate Professor
CHRISTENSEN, Tammy Lecturer
DE DIOS, Mari Lecturer
ELDREDGE, Bryan K. Professor
FERREIRA, Debora R.S. Professor
GILBERT, Devin Assistant Professor
HAO, Mingming Lecturer
HARDMAN, Jamie Lecturer
HILL, Johnny Lecturer
JARELL, Olga Lecturer
JENSEN, Douglas C. Associate Professor
KENNEDY, Chad Lecturer
LINDHEIMER, Rebeca Assistant Professor
LOUIS, Claudia Lecturer
NELSON, Lorissa Lecturer
NISGURITZER, Jorge Associate Professor
PACKER, Jeffrey Associate Professor
SAITO, Yasuko Lecturer
SPURGEON, Angela Lecturer
TEMPLE, Walter S. Associate Professor
ULLOA, Sara Associate Professor
WHITE, Frederick H. Professor
WILBER, Jason Lecturer
YUAN, Guofang Associate Professor

Course Descriptions

American Sign Language.......................................................... 550
Chinese................................................................................. 584
Chinese Studies................................................................. 586
French.................................................................................. 710
German................................................................................. 720
Japanese................................................................................. 754
Languages............................................................................... 756
Portuguese.............................................................................. 819
Russian................................................................................... 832
Spanish.................................................................................... 838

Degrees & Programs

Chinese Language, Minor

Requirements

Total Program Credits: 18

Matriculation Requirements:


Discipline Core Requirements: 9 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN 3050</td>
<td>Advanced Chinese</td>
</tr>
<tr>
<td>CHIN 351G</td>
<td>Chinese Culture and Civilization</td>
</tr>
<tr>
<td>CHIN 4050</td>
<td>Chinese Language and Culture GI</td>
</tr>
</tbody>
</table>

Elective Requirements: 9 Credits

In addition to the 9 core requirements, students must complete 9 hours of upper division electives from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN 3200</td>
<td>Business Chinese I (3)</td>
</tr>
<tr>
<td>CHIN 4200</td>
<td>Business Chinese II (3)</td>
</tr>
<tr>
<td>CHIN 4100</td>
<td>Translation and Interpretation (3)</td>
</tr>
<tr>
<td>CHST 362G</td>
<td>Traditional Chinese History GI (3)</td>
</tr>
<tr>
<td>CHST 363G</td>
<td>Modern Chinese History GI (3)</td>
</tr>
<tr>
<td>CHST 373G</td>
<td>Classical Chinese Literature GI (3)</td>
</tr>
<tr>
<td>CHST 375G</td>
<td>Modern Chinese Literature GI (3)</td>
</tr>
<tr>
<td>CHST 416G</td>
<td>Chinese Culture and Film GI (3)</td>
</tr>
<tr>
<td>CHIN 3100</td>
<td>Introduction to Classical Chinese (3)</td>
</tr>
<tr>
<td>CHIN 3650</td>
<td>Modern Chinese Literature from 1900 (3)</td>
</tr>
<tr>
<td>CHIN 3690</td>
<td>Modern China Through Film (3)</td>
</tr>
<tr>
<td>CHIN 4060</td>
<td>Topics in Grammar Usage and Style (3)</td>
</tr>
<tr>
<td>CHIN 412R</td>
<td>Chinese for the Professions (3)</td>
</tr>
<tr>
<td>CHIN 4250</td>
<td>Newspaper Readings (3)</td>
</tr>
<tr>
<td>CHIN 4300</td>
<td>Selected Readings in Classical Chinese (3)</td>
</tr>
<tr>
<td>CHIN 4500</td>
<td>Advanced Writing in Chinese (3)</td>
</tr>
<tr>
<td>CHIN 490R</td>
<td>Special Topics in Chinese Language and Literacy (3)</td>
</tr>
<tr>
<td>CHST 3739</td>
<td>Selected Readings from Pre-Qin Writings (3)</td>
</tr>
<tr>
<td>CHST 3850</td>
<td>China Transformations from 1949 (3)</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. 18 (9 credits for courses and 9 credits for elective courses).

Chinese Language, Minor

Careers

1. Have a working knowledge of Chinese grammar, morphology, and vocabulary.
2. Attain a general knowledge and understanding of Chinese culture, society and history.
3. Understand major aspects of Chinese culture and civilization from pre-historic times to the present.
4. Demonstrate the ability to transcend the boundaries between national languages and disciplines by use of comparative and collaborative approaches to scholarship.
5. Have a good understanding of methods and strategies for maintaining and extending their abilities in Chinese after graduation.

**Related Careers**

- Instructional Coordinators

### Chinese Studies, Minor

**Requirements**

The Chinese Studies minor provides students with academic experiences, skills, and strategies to understand contemporary China, including its language, culture, ethics, politics, economy and history, within scholarly and applied contexts.

Total Program Credits: 19

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
<th>1. Completion of 30 hours of credit.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discipline Core Requirements:</td>
<td>7 Credits</td>
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<tr>
<td>CHST 200G Introduction to Chinese Studies GI</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 2010 Intermediate Chinese I LH</td>
<td>4</td>
</tr>
<tr>
<td>Elective Requirements:</td>
<td>12 Credits</td>
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<tr>
<td>Complete 12 hours of advisor-approved upper division electives from the following:</td>
<td></td>
</tr>
<tr>
<td>CHIN 202G Intermediate Chinese II II HH GI (4)</td>
<td></td>
</tr>
<tr>
<td>CHST 362G Traditional Chinese History GI (3)</td>
<td></td>
</tr>
<tr>
<td>CHST 363G Modern Chinese History GI (3)</td>
<td></td>
</tr>
<tr>
<td>CHIN 351G Chinese Culture and Civilization GI (3)</td>
<td></td>
</tr>
<tr>
<td>CHST 373G Classical Chinese Literature GI (3)</td>
<td></td>
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<td>CHST 375G Modern Chinese Literature GI (3)</td>
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<td>CHST 416G Chinese Culture and Film GI (3)</td>
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<td></td>
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<tr>
<td>CHIN 4250 Newspaper Readings (3)</td>
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</tr>
<tr>
<td>CHST 3739 Selected Reading from Pre-Qin Writings (3)</td>
<td></td>
</tr>
<tr>
<td>CHST 3650 China Transformations from 1949 (3)</td>
<td></td>
</tr>
<tr>
<td>other advisor-approved course</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements: 19 (7 credits for courses and 12 credits for elective courses).

### Deaf Studies, Minor

**Requirements**

In the Deaf Studies minor, students will examine elements of what culturally-Deaf people in America have traditionally called "the Deaf-World" with special attention to the framework of meaning from within which culturally-Deaf people interpret what it means to be Deaf. This minor challenges students to approach cultural descriptions critically, and provides a historical, cultural, and linguistic foundation.

Total Program Credits: 18

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
<th>1. Declaration of a major in a bachelor degree program at UVU.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discipline Core Requirements:</td>
<td>21 Credits</td>
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<tr>
<td>Complete the following:</td>
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<tr>
<td>ASL 3000 Technology for Deaf Studies</td>
<td>3</td>
</tr>
<tr>
<td>ASL 3530 Modern Deaf Culture WE</td>
<td>3</td>
</tr>
<tr>
<td>Complete additional 12 credits of 3000-4000 level ASL prefix courses.</td>
<td>12</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Minimum cumulative GPA of 2.0 with no grade lower than "c" for all ASL courses.
2. Residency hours—minimum of 12 credits counting towards the minor through attendance at UVU.

### Deaf Studies, Minor

**Careers**

1. Students will be able to negotiate meaning with individuals via signing and reading at the Advanced Mid rating of the ACTFL proficiency levels.
2. Students will be able to comprehend members of the target language and produce messages that can be interpreted and understood by said members at the Advanced Mid rating of the ACTFL proficiency levels.
3. Students will be able to use linguistic and cultural knowledge to encourage and influence advocacy strategies to foster deaf and hearing relations in their communities.

**Related Careers**
- Interpreters and Translators

**French, Minor**

**Requirements**
Earn this minor in conjunction with any UVU Bachelor Degree Major offered. The minor consists of 18 credits of Upper Division coursework (3050 required). For more information contact the Language Department advisor.

**Total Program Credits:** 18

**Matriculation Requirements:**
1. Complete ENGL 2010 Intermediate Academic Writing CC and 30 hours of college-level courses other than French with a minimum GPA of 2.0
2. Complete lower division French courses (FREN 1010 Beginning French I LH, FREN 1020 Beginning French II LH, FREN 2010 Intermediate French I LH, and FREN 202G Intermediate French II HH GI) or receive the equivalent through experiential credit (does not apply to native speakers).
3. Students with significant residency abroad should register for French 3050 Advanced French LH WE as a first course toward the minor.
4. Be admitted to a bachelor degree program at UVU.

**Discipline Core Requirements:** 3 Credits

- FREN 3050 Advanced French LH WE

**Elective Requirements:** 15 Credits

Complete 15 credits from among the following:

- FREN 3030 French Composition and Conversation WE (3)
- FREN 3040 Introduction to Literary Genres in French (3)
- FREN 3200 Business French LH (3)
- FREN 351G Culture and Civilization to 1700 GI (3)
- FREN 352G Culture and Civilization from 1700 GI (3)
- FREN 3610 French Literature to 1700 (3)
- FREN 3620 French Literature from 1700 WE (3)
- FREN 4200 Advanced Business French (3)
- FREN 490R Special Topics in French (3)
- LANG 3000 Language and Culture LH (3)
  or LANG 481R Language Internship (1)
  or LANG 4200 Methods of Teaching a Foreign Language (3)
  or LANG 490R Special Topics in Languages (1)

**Graduation Requirements:**
1. Completion of Baccalaureate Degree.
2. A minimum grade of "C" must be earned in all minor courses.

**French, Minor Careers**
1. Students will be able to negotiate meaning through speaking, writing, reading, and listening skills at the Advanced Mid rating of the ACTFL proficiency levels.
2. Students will be able to interpret meaning in oral and written form with no recourse to active negotiation of meaning with the writer, speaker, or producer at the Advanced Mid rating of the ACTFL proficiency levels.
3. Students will be able to create messages that can be interpreted by members of the target language with no recourse to active negotiation of meaning with the writer, speaker, or producer at the Advanced Mid rating of the ACTFL proficiency levels.
4. Students will be able to use cultural knowledge to conform, linguistically and behaviorally, in various social and work-related settings at the Advanced Rating of the ACTFL Cultural Awareness descriptor.

**Related Careers**
- Foreign Language and Literature Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education
- Interpreters and Translators

**German, Minor**

**Requirements**
Pair German with an additional language of your choosing. This minor can be earned in conjunction with any Bachelor degree major that UVU offers.

**Total Program Credits:** 18

**Matriculation Requirements:**
1. Complete ENGL 2010 Intermediate Academic Writing CC and 30 hours of college-level courses other than German with a minimum GPA of 2.0
2. Complete lower division German courses [GER 1010 Beginning German I LH, GER 1020 Beginning German II LH, GER 2010 Intermediate German I LH, and GER 202G Intermediate German II HH GI] or attain a similar level of language mastery through other means. Native speakers begin at the upper division level.
3. Be admitted to a bachelor degree program at UVU.

**Discipline Core Requirements:** 3 Credits

- GER 3050 Advanced German LH

**Elective Requirements:** 15 Credits

Complete 15 credits from among the following:

- GER 3030 German Composition and Conversation (3)
- GER 3200 Business German LH (3)
- GER 351G German Culture and Civilization GI (3)
- GER 380R Topics in German Studies (3)
- GER 4200 Advanced Business German (3)
- LANG 3000 Language and Culture LH (3)
  or LANG 3010 Introduction to Linguistics  (3)
  or LANG 4200 Methods of Teaching a Foreign Language (3)
  or LANG 481R Language Internship (1)
  or other advisor-approved course
Languages and Cultures

**Graduation Requirements:**
1. Completion of Baccalaureate Degree.
2. A minimum grade of "C" must be earned in all minor courses.

**Languages, Minor Requirements**
The Minor in Languages requires 9 credits upper division course work in one language and 11 credits of intermediate level course work in another language (prerequisites will vary from student to student).

**Total Program Credits:** 20

**Matriculation Requirements:**
1. Complete ENGL 2010 Intermediate Academic Writing CC and 30 hours of college-level courses other than Language courses with a minimum GPA of 2.0.
2. Complete lower-division courses (1010, 1020, 2010, and 202G/2020) in one foreign language or receive the equivalent through experiential credit (does not apply to native speakers).
3. Be admitted to a bachelor degree program at UVU.
4. Courses taken for credit in the Languages minor may not apply to any other program. See Advisor.

**Discipline Core Requirements:** 20 Credits

<table>
<thead>
<tr>
<th>Language 1:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A 3050 course in any foreign language</td>
<td>3</td>
</tr>
<tr>
<td>6 credits numbered higher than 3050 in the same language</td>
<td>6</td>
</tr>
<tr>
<td>or LANG 3000 Language and Culture LH (6)</td>
<td></td>
</tr>
</tbody>
</table>

**LANGUAGE 2**

Eleven credits in courses numbered 2000 or higher in a SECOND foreign language.

**Graduation Requirements:**
1. Completion of Baccalaureate Degree.
2. Any grade below a "C" (2.0) in a Languages Minor course will not be accepted.

**Latin American Studies, Minor Requirements**
The minor in Latin American Studies (LAS) provides a comprehensive and interdisciplinary understanding of Latin American and Latino culture, history, and language. This is particularly important for preparing UVU students to be fully competitive in the global marketplace since two of the top ten trading partners of the United States, Mexico and Brazil, are located in Latin America. Students learn to comprehend the unique geographical and historical complexities of Latin America and its place in the world, as well as the multifaceted cultural backgrounds of their fellow students whose families are from that vast area. A minor in LAS complements a diverse number of majors giving our students the opportunity to prepare for a future working with either Utah's growing Latino population or beyond the state pursuing opportunities abroad.

**Total Program Credits:** 18

**Matriculation Requirements:**
1. Admitted to a bachelor degree program at UVU.

**Discipline Core Requirements:** 9 Credits

| GEOG 2500 Geography of Latin America | 3 |

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**Languages, Minor**

| HIST 204G Colonial Latin America GI | 3 |
| or HIST 205G Modern Latin America GI (3) |  |

**Complete 3 credits from the following:**

| PORT 202G Intermediate Portuguese II HH GI (4) |  |
| SPAN 202G Intermediate Spanish II HH GI (4) |  |

Any PORT 3000 level or higher

Any SPAN 3000 level or higher

**Elective Requirements:**

Choose 9 credits from the following:

| ANTH 3340 Peoples and Cultures of Mexico (3) |  |
| ANTH 3350 Andean Prehistory (3) |  |
| ANTH 3370 History and Ethnography of Andean Societies (3) |  |
| COMM 319G Intercultural Communication Encounters GI (3) |  |
| ENGL 373R Literature of Cultures and Places (3) |  |
| ENGL 476G Multi-ethnic Literature in America GI (3) |  |
| HIST 430G Violence and Social Conflict in Latin America GI (3) |  |
| MGMT 330G Survey of International Business GI (3) |  |
| MGMT 332G Cross-Cultural Communications for International Business GI (3) |  |
| MGMT 458R Advanced Topics in International Business (1-3) |  |
| MGMT 4870 International Management (3) |  |
| MKTG 259R Current Topics in Marketing (1-3) |  |
| POLS 420R Issues and Topics in |  |

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### Portuguese, Minor

**Requirements**

**Total Program Credits: 18**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PORT 3050</td>
<td>Advanced Portuguese LH</td>
<td>3</td>
</tr>
<tr>
<td>PORT 352G</td>
<td>Brazilian Culture and Civilization GI (3)</td>
<td></td>
</tr>
<tr>
<td>PORT 3610</td>
<td>Brazil through Literature and Film--1500-1900 (3)</td>
<td></td>
</tr>
<tr>
<td>PORT 3620</td>
<td>Modern Brazil through Literature/Music/Film--1900-1945 (3)</td>
<td></td>
</tr>
<tr>
<td>PORT 3630</td>
<td>Post-Modern Brazil through Literature/Music/Film--1945-today (3)</td>
<td></td>
</tr>
<tr>
<td>PORT 3640</td>
<td>Spanish American Literature from 1880 (3)</td>
<td></td>
</tr>
<tr>
<td>SPAN 3200</td>
<td>Business Spanish LH (3)</td>
<td></td>
</tr>
<tr>
<td>SPAN 3630</td>
<td>Spanish American Literature to 1880 (3)</td>
<td></td>
</tr>
<tr>
<td>SPAN 3640</td>
<td>Spanish American Literature from 1880 (3)</td>
<td></td>
</tr>
<tr>
<td>SPAN 380R</td>
<td>Community Engagement in Spanish (1-3)</td>
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<tr>
<td>SPAN 412R</td>
<td>Spanish for the Professions (3)</td>
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<tr>
<td>SPAN 4200</td>
<td>Advanced Business Spanish (3)</td>
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<tr>
<td>SPAN 460R</td>
<td>Topics in Hispanic Literature (3)</td>
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</tr>
<tr>
<td>SPAN 484R</td>
<td>Special Topics in Hispanic Studies (1-3)</td>
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<tr>
<td>PORT 3200</td>
<td>Business Portuguese (3)</td>
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<tr>
<td>PORT 3430</td>
<td>Masterpieces of Brazilian Film (3)</td>
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<td>PORT 352G</td>
<td>Brazilian Culture and Civilization GI (3)</td>
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<tr>
<td>PORT 3610</td>
<td>Brazil through Literature and Film--1500-1900 (3)</td>
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</tr>
<tr>
<td>PORT 3620</td>
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<td>Post-Modern Brazil through Literature/Music/Film--1945-today (3)</td>
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<tr>
<td>PORT 490R</td>
<td>Special Topics in Brazilian Studies (3)</td>
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<td>LANG 281R</td>
<td>Language Internship (1-8)</td>
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<td>or</td>
<td>LANG 3000</td>
<td>Language and Culture LH (3)</td>
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<tr>
<td>or</td>
<td>LANG 3010</td>
<td>Introduction to Linguistics (3)</td>
</tr>
<tr>
<td>or</td>
<td>LANG 481R</td>
<td>Language Internship (1)</td>
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<tr>
<td>or</td>
<td>LANG 490R</td>
<td>Special Topics in Languages (1)</td>
</tr>
<tr>
<td>or</td>
<td>LANG 4200</td>
<td>Methods of Teaching a Foreign Language (3)</td>
</tr>
<tr>
<td>or</td>
<td>other advisor-approved course.</td>
<td></td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. A minimum grade of "C" must be earned in all minor courses. *

**Footnote**

* Completion of Baccalaureate Degree.
Languages and Cultures

Portuguese, Minor

Careers

1. Students will be able to negotiate meaning through speaking, writing, reading, and listening skills at the Advanced Mid rating of the ACTFL proficiency levels.
2. Students will be able to interpret meaning in oral and written form with no recourse to active negotiation of meaning with the writer, speaker, or producer at the Advanced Mid rating of the ACTFL proficiency levels.
3. Students will be able to create messages that can be interpreted by members of the target language with no recourse to active negotiation of meaning with the writer, speaker, or producer at the Advanced Mid rating of the ACTFL proficiency levels.
4. Students will be able to use cultural knowledge to conform, linguistically and behaviorally, in various social and work-related settings at the Advanced Rating of the ACTFL Cultural Awareness descriptor.

Related Careers
• Foreign Language and Literature Teachers, Postsecondary
• Interpreters and Translators

Russian Studies, Minor

Requirements

The Russian Studies minor will provide students with a foundational understanding of the language as well as an introduction to the social, political, historical, and economic factors that make Russia one of the leading international powers today. Students will attain a general knowledge and understanding of Russian culture, society and history from pre-historic times to the present, have a basic familiarity with Russia’s position in and influence on world politics and economics, and demonstrate the ability to transcend the boundaries between national languages and disciplines by the use of comparative and collaborative approaches to scholarship.

Total Program Credits: 22

Matriculation Requirements:

1. Completion of 30 hours of credit.

Discipline Core Requirements: 4 Credits

RUS 2010 Intermediate Russian I LH 4

Elective Requirements: 18 Credits

Complete 18 hours of advisor-approved electives from the following, 9 credits must be upper-division:

- HIST 3650 Imperial Russia--Autocracy to Opposition 1696-1917 (3)
- HIST 366G The History of Modern Russia--1864 to Present GI (3)
- NSS 3350 The Cold War: Culture and Politics (3)
- POLS 3510 Post Soviet Politics WE (3)
- POLS 356G Comparative Politics of Central Asia GI (3)
- RUS 202G Intermediate Russian II HH GI (4)
- RUS 215R Russian Conversation II (1)
- RUS 266G Introduction to Russian Culture GI (3)
- RUS 3050 Advanced Russian LH (3)
- RUS 3030 Russian Conversation and Composition I (3)
- RUS 3200 Business Russian (3)

RUS 3030 Russian Conversation and Composition I (3)
RUS 3040 Russian Conversation and Composition II (3)
RUS 3520 Russian Culture and Civilization (3)
RUS 3620 Nineteenth-Century Russian Literature and Its Film Adaptations (3)
RUS 366G Twentieth Century Russian Culture GI (3)
RUS 367G History of Russian Film GI (3)
RUS 4050 Special Problems in Grammar Usage and Style (3)
RUS 4110 Translation and Interpretation (3)
RUS 416G Contemporary Russian Cinema GI (3)
RUS 490R Special Topics in Russian Studies (3)

Russian Studies, Minor

Careers

1. Read, write, and speak Russian at an intermediate to advanced low level.
2. Evaluate Russian culture within historical, social, political, and economic perspectives of Russia.
3. Interpret the semiotic meaning of Russian culture with a basic to advanced cross-cultural capacity.

Related Careers
• Area, Ethnic, and Cultural Studies Teachers, Postsecondary

Spanish for the Professions--Translation/Interpreting, Minor

Requirements

Students in the Minor in Spanish for the Professions, Translation, and Interpreting will become familiar with Spanish terminology and different oral and written documents in Spanish from a variety of professional fields. This minor will also provide students with the opportunity to acquire translation and interpreting skills between Spanish and English.

Total Program Credits: 21

Matriculation Requirements:

1. Complete ENGL 2010 Intermediate Academic Writing CC and 30 hours of college-level courses other than Spanish with a minimum GPA of 2.0
2. Complete lower division Spanish courses (1010, 1020, 2010, and 202G) or receive the equivalent through experiential credit (does not apply to native speakers).
3. Admitted to a bachelor degree program at UVU.

Discipline Core Requirements: 15 Credits

Complete one of the following:

- SPAN 3030 Spanish Conversation and Composition I (3)
- SPAN 3040 Spanish Conversation and Composition II WE (3)
- SPAN 3050 Advanced Spanish LH WE (3)
- SPAN 4110 Introduction to Translation and Interpreting English and Spanish (3)

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### Spanish for the Professions—Translation/Interpreting, Minor

**Careers**

1. Develop interpreting competencies.
2. Develop translation competencies.
3. Develop professional competencies for the language services industry.
4. Strengthen Spanish-English language skills for specific fields.

**Related Careers**

- Foreign Language and Literature Teachers, Postsecondary
- Interpreters and Translators

### Spanish, Minor

**Requirements**

This minor can be earned in conjunction with any Bachelor degree major that UVU offers. The minor consists of 18 credit hours of upper division coursework. There are some specific courses required and a number of electives so be sure to contact the advisor for more information.

**Total Program Credits: 18**

### Elective Requirements:

Complete 6 credits from the following:

- SPAN 316: Pop Culture-Film/Media/Entertainment (3)
- SPAN 317: Breaking Down Walls-Building Identities (3)
- SPAN 318: Literature and Film-Contemporary issues (3)
- SPAN 319: Advanced Spanish Conversation (1)
- SPAN 320: Pronunciation Phonetics and Phonology (3)
- SPAN 351: Culture and Civilization—Spain GI (3)
- SPAN 352: Culture and Civilization—Spanish America GI (3)
- SPAN 361: Spanish Peninsular Literature to 1800 (3)
- SPAN 362: Spanish Peninsular Literature from 1800 (3)
- SPAN 363: Spanish American Literature to 1880 (3)
- SPAN 364: Spanish American Literature from 1880 (3)
- SPAN 369: Spanish and Latin American Cultures through Cinema (3)
- SPAN 380: Community Engagement in Spanish (3)
- SPAN 405: Topics in Grammar Usage and Style WE (3)
- SPAN 410: Teaching Spanish Grammar (3)
- SPAN 412: Spanish for the Professions (3)
- SPAN 413: English-Spanish Interpreting (3)
- SPAN 441: Spanish Linguistics (3)
- SPAN 460: Topics in Hispanic Literature (3)
- SPAN 484: Special Topics in Hispanic Studies (1-3)
- SPAN 490: Capstone Seminar (3)
- LANG 3000: Language and Culture LH (3)
- LANG 3010: Introduction to Linguistics (3)
- LANG 312: National Cinema History (3)
- LANG 4200: Methods of Teaching a Foreign Language (3)
- LANG 450: Translation Technology (3)
- LANG 481: Language Internship (1-8)
- LANG 490: Special Topics in Languages (1-3)

### Graduation Requirements:

1. Completion of Baccalaureate Degree.
2. Any grade below a "C" (2.0) in a Spanish Minor course will not be accepted.
3. Up to 6 credits may be applied to both this program and the B.A. in Spanish or Spanish Education.

**Matriculation Requirements:**

1. Complete ENGL 2010 Intermediate Academic Writing CC and 30 hours of college-level courses other than Spanish with a minimum GPA of 2.0
2. Complete lower division Spanish courses (1010, 1020, 2010, and 202G) or receive the equivalent through experiential credit (does not apply to native speakers).
3. Admitted to a bachelor degree program at UVU.

**Discipline Core Requirements:**

Complete 9 credits from any upper-division SPAN or LANG courses not previously taken.

- SPAN 3040: Spanish Conversation and Composition II WE (3)
- SPAN 3050: Advanced Spanish LH WE (3)
- SPAN 351: Culture and Civilization—Spain GI (3)
- SPAN 352: Culture and Civilization—Spanish America GI (3)
- SPAN 405: Topics in Grammar Usage and Style WE (3)

**Complete 9 credits from any upper-division SPAN or LANG courses not previously taken.**

### Graduation Requirements:

1. Completion of Baccalaureate Degree.
Any grade below a "C" (2.0) in a Spanish Minor course will not be accepted.

ASL and Deaf Studies Education, B.A.

Requirements
This four-year degree prepares students to teach ASL & Deaf Studies in secondary education (grades 7-12) settings. Students take major courses from the Languages department and licensure courses through the School of Education. This degree requires separate application to the School of Education.

Bachelor of Arts in ASL and Deaf Studies Education

Total Program Credits: 120

Matriculation Requirements:
1. ACT exam minimums: Composite 21, English 20, Math 19; or SAT exam minimums: Critical Read/Math 1000, with Math and Reading scores of 450; or if student has a bachelor degree or higher, he/she does not need to meet this testing requirement.
2. GPA of 3.0 or higher with no grade lower than a C in content area courses.
3. Completion of all General Education requirements and the majority of content area courses.
4. Pass LiveScan Criminal Background Check.

General Education Requirements: 36 Credits
- ENGL 1010 Introduction to Academic Writing CC 3
  or ENGH 1005 Literacies and Composition Across Contexts CC (5.0)
- ENGL 2010 Intermediate Academic Writing CC 3
- MATH 1050 College Algebra QL 4
  or MATH 1055 College Algebra with Preliminaries QL (5.0)
- HIST 1700 American Civilization AS (3.0)
- HIST 2700 US History to 1877 AS (3.0)
  and HIST 2710 US History since 1877 AS (3.0)
- POLS 1000 American Heritage SS (3.0)
- POLS 1100 American National Government AS (3.0)
- HIST 1740 US Economic History AS (3.0)

Complete the following:
- PHIL 2050 Ethics and Values IH 3
- HLTH 1100 Personal Health and Wellness TE 2
  or EXSC 1097 Fitness for Life TE (2.0)

Distribution Courses:
- Humanities Distribution 3
- Social/Behavioral Science 3
- Fine Arts Distribution 3
- Biology 3
- Physical Science 3
- Biology or Physical Science 3

Discipline Core Requirements: 68 Credits
- Must be completed with a grade of B- or higher.

Education Courses:
- EDEL 1010 Introduction to Education 2
- EDSC 3000 Educational Psychology 3
- EDSP 340G Exceptional Students GI 2
- EDSC 325G Equitable Technology Integration GI 2
- EDSC 4200 Classroom Management I (Dance Education majors take 4430 in place of EDSC 4200.) 2
- EDSC 4250 Classroom Management II 2
- EDSC 4440 Content Area Literacies (English Education majors take ENGL 4210, 4220, 4230 in place of EDSC 4440) 3
- EDSC 445G Multicultural Instruction ESL GI 3
- EDSC 455G Secondary Curriculum Instruction and Assessment GI 3
- EDSC 4850 Student Teaching Secondary 8
- EDSC 4990 Teacher Performance Assessment Project WE 2

Elective Requirements: 16 Credits
- Complete 16 credits of any courses 1000-level or higher.

Notes:
1. Requires ASL skills equivalent to those expected at the completion of ASL 202G Intermediate American Sign Language II HH GI. See advisor for more information.

Graduation Requirements:
1. Complete a minimum of 120 credit hours with a minimum of 40 upper-division credits.
2. Overall Grade of 3.0 (B) or above with no grade lower than a C or better in major required content courses and no grade lower than a B- in Licensure and Methods courses.
3. Completion of General Education, ASL & Deaf Studies core, and elective requirements.
4. Meet residency and maximum years in program requirements and any other requirements stated in the University Catalog or established by the department.
5. Successful completion of at least one Global/Intercultural course.

Notes:
1. Students should frequently review their program with faculty or department advisor.
2. Any grade below a C (2.0) in an ASL & Deaf Studies core or elective course will not be accepted toward the major. Students
must maintain an overall GPA of 3.0 or higher and meet all other graduation requirements stipulated in the university catalog. Post-BA/BS students must take 30 hours of education courses, fulfill the MATH 1050 College Algebra QL or MATH 1055 College Algebra with Preliminaries QL requirement, and meet all stipulated deadlines.

ASL and Deaf Studies Education, B.A.

Careers

Program Learning Outcomes

1. Student will be able to negotiate meaning with individuals via speaking, writing, or reading at the Advanced Mid rating of the ACTFL proficiency levels.
2. Students will be able to interpret meaning in either oral or written forms with no recourse to active negotiation of meaning with the writer, speaker, or producer at the Advanced Mid rating of the ACTFL proficiency levels.
3. Students will be able to create messages that can be interpreted by members of the target language with no recourse to active negotiation of meaning with the writer, speaker, or producer at the Advanced Mid rating of the ACTFL proficiency levels.
4. Students will be able to use cultural knowledge to conform linguistically and behaviorally in many social and work-related interactions at the Advanced Level of the ACTFL proficiency levels.
5. Students will be able to apply pedagogical/interpreting theories, knowledge & skills.

Related Careers

- Special Education Teachers, Preschool
- Special Education Teachers, Kindergarten and Elementary School
- Special Education Teachers, Middle School
- Special Education Teachers, Secondary School
- Special Education Teachers, All Other
- Interpreters and Translators

Deaf Studies - General Deaf Studies Emphasis, B.A.

Requirements

This four-year degree is a liberal arts degree that provides in-depth study into all facets of the Deaf-World. Students choose among two emphases. There is no special application process, but students should declare their major by contacting the academic advisor for the Languages Department.

This emphasis provides an opportunity for students to gain advanced ASL skills and thorough knowledge of the Deaf-World. Graduates with this emphasis will be prepared to work in various fields related to deafness. They will also work in fields that are not specifically tied to deafness. This emphasis is also terrific preparation for graduate school in any number of disciplines.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC 3</td>
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<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
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<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC 3</td>
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<td>Choose one of the following:</td>
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<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
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</table>

Discipline Core Requirements: 33 Credits

| ASL 3000 Technology for Deaf Studies | 3 |
| ASL 3050 Advanced American Sign Language | 3 |
| ASL 3400 ASL Visual-Spatial Production | 3 |
| ASL 3410 American Sign Language Linguistics | 3 |
| ASL 3510 History of Deaf People to 1817 | 3 |
| ASL 3520 History of Deaf People after 1817 | 3 |
| ASL 3530 Modern Deaf Culture WE | 3 |
| ASL 387G Disability/Audism/Oppression GI | 3 |
| ASL 4620 American Sign Language Literature | 3 |
| ASL 4800 Deaf Culture Studies WE | 3 |
| LANG 3000 Language and Culture | 3 |

Emphasis Requirements: 12 Credits

Complete the following courses:

| ASL 3710 Deaf Visual Arts | 3 |
| ASL 4450 Deaf World Discourse | 3 |
| ASL 4530 Deaf Peoples of the World | 3 |
| ASL 4700 Issues in Deaf Culture Studies | 3 |

Languages and Cultures
Languages and Cultures

**Emphasis Elective Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete 9 credits of any ASL prefix 3000- or 4000-level courses that are not part of the core nor emphasis requirements.</td>
<td>9</td>
</tr>
<tr>
<td>Complete 31 credits from any courses. ASL prefix courses are highly recommended and encouraged to develop language skills.</td>
<td>31</td>
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<tr>
<td>An internship (LANG 481R) is also highly recommended where feasible.</td>
<td></td>
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</tbody>
</table>

**Notes:**

1. Highly recommend: ASL 202G Intermediate American Sign Language II HH GI, COMM 1020 Public Speaking HH, PHIL 1000 Introduction to Philosophy HH or HUM 1010 Humanities Through the Arts HH.
2. Highly recommend: DANC 1010 Dance as an Art Form FF.
3. Highly recommend: ANTH 101G Social Cultural Anthropology SS GI, MGMT 1010 Introduction to Business SS, Or CJ 1010 Introduction to Criminal Justice SS, COMM 1050 Introduction to Communication SS.
4. Highly recommend: ZOOL 1090 Introduction to Human Anatomy and Physiology BB or ZOOL 2320 Human Anatomy BB.
5. Highly recommend: CHEM 1010 Introduction to Chemistry PP or PHYS 1010 Elementary Physics PP.
6. Requires ASL skills equivalent to those expected at the completion of ASL 1020 Beginning American Sign Language II LH. See advisor for more information.
7. Requires ASL skills equivalent to those expected at the completion of ASL 202G Intermediate American Sign Language II HH GI. See advisor for more information.

**Graduation Requirements:**

1. 120 credit hours (minimum of 40 upper division).
2. Minimum cumulative G.P.A. of 2.0, with no grade lower than a "C" for all core and ASL elective requirements.
3. Completion of General Education requirements.
4. Completion of Deaf Studies major core and elective requirements.
5. Completion of one of the two emphases.
6. Residency hours--minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
7. Successful completion of at least one Global/Intercultural course.
8. Successful completion of at least two Writing Enriched courses.

**Deaf Studies - Interpreting Emphasis, B.A.**

**Requirements**

This four-year degree is a liberal arts degree that provides in-depth study into all facets of the Deaf-World. Students choose among two emphases. There is no special application process, but for students to qualify for the Interpreting emphasis, they will need to pass ASL 3060 American Sign Language Proficiency. Students should declare their major by contacting the academic advisor for the Languages Department.

Currently there is a significant shortage of professional interpreters working with Deaf and hard-of-hearing American Sign Language-using populations across the United States. The Interpreting Emphasis provides training and focus for students to develop professional bidirectional interpreting skills for obtaining state, regional, and national interpreting certifications.

**Total Program Credits: 120**

**General Education Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC (3)</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC (3)</td>
</tr>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
</tr>
<tr>
<td>STAT 1040</td>
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<td>College Algebra QL (4)</td>
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<td>College Algebra for Business QL (3)</td>
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<tr>
<td>and HIST 2710</td>
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</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
</tr>
</tbody>
</table>

Choose one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH (3)</td>
</tr>
<tr>
<td>or PHIL 205G</td>
<td>Ethics and Values IH GI</td>
</tr>
</tbody>
</table>

**Deaf Studies - General Deaf Studies Emphasis, B.A.**

**Careers**

1. Students will be able to identify the major features of and issues in Deaf communities and Deaf cultures at the Advanced Mid rating of the ACTFL proficiency levels.
2. Students will be able to use digital media technologies to produce language and messages in video format that can be understood by members and users of the target language.
3. Students will be able to analyze critically ways sociocultural history influences a Deaf individual’s sense of self and relationship with others.
4. Students will be able to describe communication between hearing people and Deaf people that is vital to society.
5. Students will be able to demonstrate an appreciation of deaf and hard of hearing people’s contributions to the visual arts and humanities.
6. Students will be able to negotiate meaning with individuals via speaking, writing, or reading at the Advanced Mid rating of the ACTFL proficiency levels.
7. Students will be able to comprehend members of the target language and produce messages that can be interpreted and understood by said members at the Advanced Mid rating of the ACTFL proficiency levels.
8. Students will be able to use linguistic and cultural knowledge to encourage and influence advocacy strategies to foster deaf and hearing relations in their communities.
9. Students will be able to use cultural knowledge to conform linguistically and behaviorally in many social and work-related interactions at the Advanced Level of the ACTFL proficiency levels.

**Related Careers**

- Interpreters and Translators
### Emphasis Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 3000</td>
<td>Technology for Deaf Studies</td>
<td>3</td>
</tr>
<tr>
<td>ASL 3050</td>
<td>Advanced American Sign Language</td>
<td>3</td>
</tr>
<tr>
<td>ASL 3400</td>
<td>ASL Visual-Spatial Production</td>
<td>3</td>
</tr>
<tr>
<td>ASL 3410</td>
<td>American Sign Language Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>ASL 3510</td>
<td>History of Deaf People to 1817</td>
<td>3</td>
</tr>
<tr>
<td>ASL 3520</td>
<td>History of Deaf People after 1817</td>
<td>3</td>
</tr>
<tr>
<td>ASL 3530</td>
<td>Modern Deaf Culture WE</td>
<td>3</td>
</tr>
<tr>
<td>ASL 387G</td>
<td>Disability/Audism/Oppression GI</td>
<td>3</td>
</tr>
<tr>
<td>ASL 4620</td>
<td>American Sign Language Literature</td>
<td>3</td>
</tr>
<tr>
<td>ASL 4800</td>
<td>Recent Trends in Deaf Studies Theory WE</td>
<td>3</td>
</tr>
<tr>
<td>LANG 3000</td>
<td>Language and Culture LH</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Additional Elective Courses

Any course 1000 or higher 10

### Notes:

1. Highly recommend: ASL 202G Intermediate American Sign Language II HH GI, COMM 1020 Public Speaking HH, PHIL 1000 Introduction to Philosophy HH or HUM 1010 Humanities Through the Arts HH.
2. Highly recommend: DANC 1010 Dance as an Art Form FF
3. Highly recommend: ANTH 101G Social Cultural Anthropology SS GI or MGMT 1010 Introduction to Business SS or CJ 1010 Introduction to Criminal Justice SS or COMM 1050 Introduction to Communication SS
4. Highly recommend: ZOOL 1090 Introduction to Human Anatomy and Physiology BB or ZOOL 2320 Human Anatomy BB
5. Highly recommend: CHEM 1010 Introduction to Chemistry PP or PHYS 1010 Elementary Physics PP
6. Requires ASL skills equivalent to those expected at the completion of ASL 1020 Beginning American Sign Language II LH. See advisor for more information.
7. Requires ASL skills equivalent to those expected at the completion of ASL 202G Intermediate American Sign Language II HH GI. See advisor for more information.

### Graduation Requirements:

1. 120 credit hours (minimum of 40 upper division).
2. Minimum cumulative G.P.A. of 2.0, with no grade lower than a "C" for all core and ASL elective requirements.
3. Completion of General Education requirements.
4. Completion of Deaf Studies major core and elective requirements.
5. Completion of one of the two emphases.
6. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
7. Successful completion of at least one Global/Intercultural course.
8. Successful completion of at least two Writing Enriched courses.

Note: Students should frequently review their program with faculty or department advisor.

### Deaf Studies - Interpreting Emphasis, B.A.

#### Careers

1. Students will be able to produce, negotiate, and interpret meaning linguistically (original or abstract) with members of the target language via signing, speaking, writing, or reading at the Advanced Mid rating of the ACTFL proficiency levels.
2. Students will be able to demonstrate linguistic and professional usage of the interpreting process in a culturally appropriate manner.
3. Students will be able to pragmatically apply interpreting theories, knowledge and skills in decision-making tasks.
4. Students will be able to negotiate meaning with individuals via speaking, writing, or reading at the Advanced Mid rating of the ACTFL proficiency levels.
5. Students will be able to comprehend members of the target language and produce messages that can be interpreted and understood by said members at the Advanced Mid rating of the ACTFL proficiency levels.
6. Students will be able to use cultural knowledge to encourage and influence advocacy strategies to foster deaf and hearing relations in their communities.
7. Students will be able to use cultural knowledge to conform linguistically and behaviorally in many social and work-related interactions at the Advanced Level of the ACTFL proficiency levels.
Languages and Cultures

Related Careers
- Interpreters and Translators

French Education, B.A.

Requirements
This four-year degree prepares students to teach French in secondary education settings. It also prepares students to qualify for the Dual Language Immersion (DLI) Endorsement. Students take major courses from the Department of Languages and Cultures and licensure and endorsement courses through the School of Education. This degree requires separate application to the School of Education.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ENGL 2010 and MATH QL courses must have a grade C or higher.</td>
</tr>
<tr>
<td>2. GPA of 3.0 or higher with no grade lower than a C in content area courses.</td>
</tr>
<tr>
<td>3. Completion of all General Education requirements and 70% of content area courses.</td>
</tr>
<tr>
<td>4. Pass LiveScan Criminal Background Check.</td>
</tr>
<tr>
<td>5. Exit interview with French Program Director.</td>
</tr>
<tr>
<td>6. Other requirements as determined by the Department of Languages and Cultures</td>
</tr>
</tbody>
</table>

General Education Requirements: 35 Credits

| ENGL 1010 | Introduction to Academic Writing CC |
| ENGL 2010 | Intermediate Academic Writing CC |

Choose one of the following: 4

| MATH 1050 | College Algebra QL (4) |
| MATH 1055 | College Algebra with Preliminaries QL (5) |
| MATH 1090 | College Algebra for Business QL (3) |
| MAT 1030 | Quantitative Reasoning QL (3) |
| MAT 1035 | Quantitative Reasoning with Integrated Algebra QL (6) |
| STAT 1040 | Introduction to Statistics QL (3) |
| STAT 1045 | Introduction to Statistics with Algebra QL (5) |

Choose one of the following: 3

| HIST 1700 | American Civilization AS (3) |
| HIST 2700 | US History to 1877 AS (3) |
| and HIST 2710 | US History since 1877 AS (3) |
| POLS 1000 | American Heritage SS (3) |
| POLS 1100 | American National Government AS (3) |
| HIST 1740 | US Economic History AS (3) |

Complete the following:

| PHIL 2050 | Ethics and Values IH |
| HLTH 1100 | Personal Health and Wellness TE |
| or EXSC 1097 | Fitness for Life TE (2) |

Distribution Courses: 3

| Biology |

Graduation Requirements:
1. Complete a minimum of 120 credit hours with a minimum of 40 upper-division credits.
2. Overall grade of 3.0 (B) or above with no grade lower than a C or better in major required content courses and no grade lower than a B- in Licensure and Methods courses.
3. Completion of General Education, French core, and elective requirements.
4. Residency hours--minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. Successful completion of at least one Global / Intercultural course.
French Education, B.A.

Careers

1. Fluent in the target language, which includes being able to discuss (and respond to) the cultures associated with the target language (“cultural fluency”);
2. Able to align all lessons and pedagogical practices with the ACTFL Standards;
3. Knowledgeable on effective classroom practices as they relate to the instruction of French and Francophone cultures at the secondary level;
4. Effectively participate in a community of teachers and learners in a secondary school setting, which includes being able to demonstrate the knowledge, skills, and abilities expected of a French teacher at the secondary level, as defined by the School of Education and the Department of Languages and Cultures.
5. Students will be able to use content specific L2 pedagogical approaches in the second language classroom to teach reading, writing, listening, and speaking skills that align with ACTFL standards.

Related Careers

- Education Teachers, Postsecondary
- Foreign Language and Literature Teachers, Postsecondary
- Middle School Teachers, Except Special and Career/Technical Education
- Secondary School Teachers, Except Special and Career/Technical Education

Spanish Education, B.A.

Requirements

This four-year degree prepares students to teach Spanish in Secondary education (grades 7-12) settings. Students take major courses from the Languages and Cultures department and licensure courses through the School of Education. This degree requires separate application to the School of Education.

Total Program Credits: 120

Matriculation Requirements:

1. ENGL and MATH QL courses must have a grade C or higher.
2. GPA of 3.0 or higher with no grade lower than a C in content area courses.
3. Completion of all General Education requirements and 70% of content area courses.
4. Pass LiveScan Criminal Background Check.
5. Requirements by the Department of Languages: a) Complete the Spanish controlled writing sample, b) Complete a video of you teaching a lesson in Spanish, c) ACTFL OPI test with a score of Advanced Low or higher.

General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
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<td>College Algebra with Preliminaries QL (5)</td>
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<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
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<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
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</table>

Matriculation Requirements: 56 Credits

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<tr>
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<tbody>
<tr>
<td>SPAN 3040</td>
<td>Spanish Conversation and Composition II LH WE</td>
<td>3</td>
</tr>
<tr>
<td>or SPAN 3050</td>
<td>Advanced Spanish LH WE (3)</td>
<td></td>
</tr>
<tr>
<td>SPAN 351G</td>
<td>Culture and Civilization--Spain GI</td>
<td>3</td>
</tr>
<tr>
<td>or SPAN 352G</td>
<td>Culture and Civilization--Spanish America GI (3)</td>
<td></td>
</tr>
</tbody>
</table>

ACTFL Oral Proficiency Interview (OPI) Score of Advanced Low or higher.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SPAN 4050</td>
<td>Special Topics in Grammar Usage and Style WE</td>
<td>3</td>
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</tbody>
</table>

Any two upper division Spanish Literature courses 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SPAN 4100</td>
<td>Teaching Spanish Grammar</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 4900</td>
<td>Capstone Seminar</td>
<td>3</td>
</tr>
<tr>
<td>LANG 4200</td>
<td>Methods of Teaching a Foreign Language</td>
<td>3</td>
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</table>

Education Courses:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EDSC 1010</td>
<td>Introduction to Education</td>
<td>2</td>
</tr>
<tr>
<td>EDSP 340G</td>
<td>Exceptional Students GI</td>
<td>2</td>
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<tr>
<td>EDSC 3000</td>
<td>Educational Psychology</td>
<td>3</td>
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<tr>
<td>EDSC 325G</td>
<td>Equitable Technology Integration GI</td>
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<tr>
<td>EDSC 4200</td>
<td>Classroom Management I</td>
<td>2</td>
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<tr>
<td>EDSC 4250</td>
<td>Classroom Management II</td>
<td>2</td>
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<tr>
<td>EDSC 4440</td>
<td>Content Area Literacies</td>
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<tr>
<td>EDSC 445G</td>
<td>Multicultural Instruction ESL GI</td>
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</tr>
<tr>
<td>EDSC 455G</td>
<td>Secondary Curriculum Instruction and Assessment GI</td>
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</table>
Languages and Cultures

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>EDSC 4850</td>
<td>Student Teaching Secondary</td>
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</tr>
<tr>
<td>EDSC 4990</td>
<td>Teacher Performance Assessment Project WE</td>
<td>2</td>
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</tbody>
</table>

Elective Requirements: 29 Credits

Complete 18 credits of any upper-division SPAN or LANG courses not previously taken. 18

Complete 11 credits of any courses 1000-level or higher. 11

Graduation Requirements:
1. Complete a minimum of 120 credit hours with a minimum of 40 upper-division credits.
2. Overall Grade of 3.0 (B) or above with no grade lower than a C or better in major required content courses and no grade lower than a B- in Licensure and Methods courses.
3. Completion of General Education, Spanish core, and elective requirements.
4. Meet residency and maximum years in program requirements and any other requirements stated in the College Catalog or established by the department.
5. Successful completion of at least one Global/Intercultural course.

NOTES: Students should frequently review their program with faculty or department advisor. Post-BA/BS students must take 30 hours of education courses, fulfill the Math 1050 requirement, and meet all stipulated deadlines.

Spanish Education, B.A.

Careers
1. Student will be able to negotiate meaning with individuals via speaking, writing, or reading at the Advanced Mid rating of the ACTFL proficiency levels.
2. Students will be able to interpret meaning in either oral or written forms with no recourse to active negotiation of meaning with the writer, speaker, or producer at the Advanced Mid rating of the ACTFL proficiency levels.
3. Students will be able to create messages that can be interpreted by members of the target language with no recourse to active negotiation of meaning with the writer, speaker, or producer at the Advanced Mid rating of the ACTFL proficiency levels.
4. Students will be able to use cultural knowledge to conform linguistically and behaviorally in many social and work-related interactions at the Advanced Level of the ACTFL proficiency levels.
5. Students will be able to apply pedagogical theories, knowledge and skills.

Related Careers
- Education Teachers, Postsecondary
- Foreign Language and Literature Teachers, Postsecondary
- Middle School Teachers, Except Special and Career/Technical Education
- Secondary School Teachers, Except Special and Career/Technical Education

Spanish, B.A.

Requirements
This four-year degree is a liberal arts degree that provides in-depth study into all facets of the Spanish language and culture. There is no special application process, but students should declare their major by contacting the academic advisor for the Languages department.

Total Program Credits: 120

General Education Requirements:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
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<td>Introduction to Academic Writing CC</td>
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<tr>
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<tr>
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<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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<td>US Economic History AS (3)</td>
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<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
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</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
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<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
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Distribution Courses

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Humanities Distribution (non-language courses only)</td>
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<td></td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
<td></td>
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<tr>
<td>Fine Arts Distribution</td>
<td>3</td>
<td></td>
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<tr>
<td>Biology</td>
<td>3</td>
<td></td>
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<tr>
<td>Physical Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Biology or Physical Science</td>
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<td></td>
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Discipline Core Requirements: 18 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SPAN 3030</td>
<td>Spanish Conversation and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>and SPAN 3040</td>
<td>Spanish Conversation and Composition II WE (6)</td>
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</tr>
<tr>
<td>or SPAN 3050</td>
<td>Advanced Spanish LH WE (3)</td>
<td></td>
</tr>
<tr>
<td>SPAN 351G</td>
<td>Culture and Civilization--Spain Gi</td>
<td>3</td>
</tr>
<tr>
<td>or SPAN 352G</td>
<td>Culture and Civilization--Spanish America Gi (3)</td>
<td></td>
</tr>
<tr>
<td>SPAN 3060</td>
<td>Oral Proficiency (1)</td>
<td></td>
</tr>
<tr>
<td>or Oral Proficiency Interview (OPI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAN 4050</td>
<td>Topics in Grammar Usage and Style WE</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 4900</td>
<td>Capstone Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

Any two upper division Spanish literature courses 6
Elective Requirements: 67 Credits

Complete 18 credits of any upper-division SPAN or LANG courses not previously taken. 18

Any course 1000 level or higher (includes SPAN 1010-SPAN 1020-SPAN 2010-SPAN 202G) 49

Graduation Requirements:

1. 120 credit hours (minimum of 40 upper division)
2. Minimum cumulative G.P.A. of 2.0, with no grade lower than a "C" for all core and SPAN elective requirements.
3. Completion of General Education requirements.
4. Completion of Spanish major core and elective requirements.
5. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
6. Successful completion of at least one Global/Intercultural course.
7. Students should frequently review their program with faculty or department advisor.

Spanish, B.A.

Careers

1. Student will be able to negotiate meaning with individuals via speaking, writing, reading or signing at the Advanced Mid rating of the ACTFL proficiency levels.
2. Students will be able to interpret meaning in either oral, written or visual form with no recourse to active negotiation of meaning with the writer, speaker, or producer at the Advanced Mid rating of the ACTFL proficiency levels.
3. Students will be able to create messages that can be interpreted by members of the target language with no recourse to active negotiation of meaning with the writer, speaker, or producer at the Advanced Mid rating of the ACTFL proficiency levels.
4. Student will be able to use cultural knowledge to conform linguistically and behaviorally in many social and work-related interactions at the Advanced Rating of the ACTFL Cultural Awareness descriptor.

Related Careers

- Interpreters and Translators
- Foreign Language and Literature Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education
- Interpreters and Translators
The Literacies and Composition department is in the College of Humanities and Social Sciences. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Literacies and Composition department, visit their website.

DEPARTMENT CHAIR
HILST, Joshua Associate Professor

FACULTY
BENDER, Melinda A. Professor
DUTTAGUPTA, Chitraldha Associate Professor
HENRY, Thomas Associate Professor
HILST, Joshua Associate Professor
HIXON-BOWLES, Kelsey Assistant Professor
JOHNSON, Erika T. Assistant Professor
PRESTON, Jacqueline Associate Professor

Course Descriptions

Literacies and Composition

672
Marketing

Business Marketing

The Business Marketing department is in the Woodbury School of Business. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Business Marketing department, visit their website.

Business Marketing department

DEPARTMENT CHAIR
MURDOCK, Mitchel R. Assistant Professor

FACULTY
AHMAD, Kamal Assistant Professor
ALVARADO-KARSTE, Diego Assistant Professor
ANDERSEN, Richelle Lecturer
BENSON, David M. Lecturer
BETTRIDGE, Amy Lecturer
FARNWORTH, Xanthe Lecturer
GRIFFIN, Brigham K. Professional in Residence
HAWKES, Joshua Lecturer
HUFF, Steven Associate Professor
JOHNSON, Gary Professional in Residence
JOLLEY, A. Dale Professional in Residence
LAWSON, Kimberli Lecturer
MAXFIELD, Neal Lecturer
MCPHERSON, Michelle Lecturer
MURDOCK, Mitchel R. Assistant Professor
PRZYBYLA, David Professional in Residence
SARAVADE, Swapnil Assistant Professor
SCHILL, Ryan Visiting Assistant Professor
SKOUSEN, Bret Professional in Residence
STUDEBAKER, Matt J. Lecturer

Course Descriptions

Marketing

Degrees & Programs

Digital Marketing, Certificate of Proficiency

Requirements

The Certificate of Proficiency in Digital Marketing includes courses that teach social media marketing, digital advertising, web analytics, content and email marketing, and conversion optimization. Certification signals digital marketing capability to current employers. The certificate provides an opportunity for professionals to retool and stay current with ever-changing industry trends.

Total Program Credits: 18

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>18 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 2400 Data Analytics for Business</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3600 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3660 Digital Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3170 Digital Advertising</td>
<td>3</td>
</tr>
</tbody>
</table>

Notes:

1. Can be taken simultaneously with MKTG 3600.

Graduation Requirements:

1. Completion of a minimum of 18 semester credits.
2. Overall grade point average of 2.0 (C-) or above.
3. Residency hours-- minimum of 3 credit hours through course attendance at UVU.

Digital Marketing, Certificate of Proficiency Careers

1. Analyze quantitatively and qualitatively market conditions to gain insights that inform marketing strategy and campaigns.
2. Develop effective marketing plans and campaigns that account for customer differences and preferences, competition, and the impact of other important market factors.
3. Create digital marketing campaigns with appropriate use of digital advertising, social media, and web analytics.

Product Management, Certificate of Proficiency

Requirements

The Certificate of Proficiency in Product Management includes courses that teach product management, marketing research, data collection and analysis, marketing fundamentals, customer behavior, and services marketing including SaaS marketing. Certification signals product management capability to current employers. The certificate provides an opportunity for professionals to retool and stay current with ever-changing industry trends.

Total Program Credits: 18

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<thead>
<tr>
<th>Discipline Core Requirements:</th>
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</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>MKTG 3600 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3700 Fundamentals of Product Management</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3630 Services Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3620 Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4600 Customer Experience</td>
<td>3</td>
</tr>
</tbody>
</table>

Notes:

1. Can be taken simultaneously with MKTG 3600.

Graduation Requirements:

1. Completion of a minimum of 18 semester credits.
2. Overall grade point average of 2.0 (C-) or above.
3. Residency hours-- minimum of 6 credit hours through course attendance at UVU.

Product Management, Certificate of Proficiency Careers

1. Analyze quantitatively and qualitatively customer needs that inform product development.
2. Determine which firm constraints should inform product development.
Marketing, Minor

Requirements

The Marketing Department offers students three different tracks in the marketing minor, each providing a theoretical and in-depth professional preparation in the field. The first is the Marketing Management track, which provides a broad base of experiential classes and the most flexibility in scheduling for employed students. The second is the Digital Marketing track, which provides courses in internet marketing, social media, and web analytics. The newest track is Professional Selling, which prepares students for a career in sales with courses in personal selling, sales management, and sales analytics. Whichever track is chosen, a professional internship is highly encouraged.

Total Program Credits: 18

<table>
<thead>
<tr>
<th>Discipline Core Requirements</th>
<th>18 Credits</th>
</tr>
</thead>
<tbody>
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<td>3</td>
</tr>
<tr>
<td>MKTG 3600 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3650 Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3640 Sales Management</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4610 Sales Operations</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4620 Advanced Professional Selling</td>
<td>3</td>
</tr>
</tbody>
</table>

Notes:

1. Can be taken simultaneously with MKTG 3600.

Graduation Requirements:

1. Completion of a minimum of 18 semester credits.
2. Overall grade point average of 2.0 (C-) or above.
3. Residency hours-- minimum of 6 credit hours through course attendance at UVU.

Professional Sales, Certificate of Proficiency

Related Careers

- Advertising and Promotions Managers
- Marketing Managers
- Sales Managers
- Market Research Analysts and Marketing Specialists
- Business Teachers, Postsecondary

Requirements

A Certificate of Proficiency in Professional Sales at UVU offers an applied approach to professional sales. The certificate focuses on developing the knowledge and skills necessary to be able to be successful in a professional sales environment with a focus on business to business sales. Courses specialize in personal selling skills, sales coaching and sales management, sales analytics and sales strategy, along with a sales-centered internship.

Total Program Credits: 18

<table>
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<tr>
<th>Discipline Core Requirements</th>
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</tr>
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<tbody>
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<td>3</td>
</tr>
<tr>
<td>MKTG 4600 Customer Experience</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3650 Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3660 Digital Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3700 Fundamentals of Product Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Notes:

Can be taken simultaneously with MKTG 3600.

Related Careers

- Advertising and Promotions Managers
- Marketing Managers
- Sales Managers
- Market Research Analysts and Marketing Specialists
- Business Teachers, Postsecondary

Professional Sales, Certificate of Proficiency

Careers

1. Demonstrate effective prospecting and approach skills using customer-centric professional selling principles.
2. Develop an effective sales management plan for organizing, staffing, training, and motivating a sales force.
3. Evaluate the effectiveness of a sales funnel implemented using industry standard tools.
4. Demonstrate effective execution of the entire sales process, from research to close, with real-life products and prospects.

Digital Marketing, B.S.

Requirements

The Digital Marketing major at UVU offers an analytical, applied, engaged-learning approach to digital marketing. Students learn a balance of marketing strategy, content creation, graphic design, and website/social media analytics for marketing campaigns. The digital marketing major offers an expanding menu of beginning and advanced courses that allow students to use their digital marketing skills for live engaged-learning clients.

Total Program Credits: 120

Matriculation Requirements:

1. Students will be limited to 9 hours of upper-division credit until matriculation is completed.
2. Students must complete the following courses in order to matriculate: ACC 2110 Principles of Accounting I, ECON 2010 Principles of Economics I SS, MyEducator or IM 2010
### General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
</tr>
<tr>
<td>or</td>
<td>ENGH 1005 Literacies and Composition Across Context CC (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
</tr>
</tbody>
</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>An Advanced Placement (AP) Mathematics Test with a score of 3 or higher</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>and</td>
<td>HIST 2710 US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HLTH 1100 Personal Health and Wellness TE (2)</td>
<td>2</td>
</tr>
<tr>
<td>or</td>
<td>EXSC 1097 Fitness for Life TE</td>
<td>2</td>
</tr>
</tbody>
</table>

### Distribution Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2010</td>
<td>Principles of Economics I SS (fulfills Social/Behavioral Science credit)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Biology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Additional Biology or Physical Science</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Fine Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

### Discipline Core Requirements: 55 Credits

### Business Foundation Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 2110</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>My Educator</td>
<td>2</td>
</tr>
<tr>
<td>or</td>
<td>IM 2010 Business Computer Proficiency (3)</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>IM 2600 Spreadsheet Applications (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GI WE (Complete with B- grade or higher)</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2340</td>
<td>Business Statistics I</td>
<td>3</td>
</tr>
</tbody>
</table>

### Digital Marketing Core:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 1890</td>
<td>Introduction to Careers in Business</td>
<td>1</td>
</tr>
<tr>
<td>MKTG 3890</td>
<td>Business Career Preparation</td>
<td>2</td>
</tr>
<tr>
<td>MKTG 3300</td>
<td>Marketing Analytics</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3660</td>
<td>Digital Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3170</td>
<td>Digital Advertising</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3680</td>
<td>Marketing with Social Media</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3690</td>
<td>Digital Marketing Analytics</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4150</td>
<td>Digital Marketing Capstone</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 483R</td>
<td>Digital Marketing Internship (1-3 credits)</td>
<td>3</td>
</tr>
</tbody>
</table>

### Elective Requirements: 30 Credits

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing Electives: Select from approved list; see advisors (15 credits needed)</td>
<td>15</td>
</tr>
</tbody>
</table>

### General Electives: Any course numbered 1000 or higher. (15 credits needed) | 15

### Notes:

1. Cannot be taken until student is matriculated.
2. Students are required to complete My Educator, IM 2010, or IM 2600 with a grade of B- or higher.

### Graduation Requirements:

1. Completion of a minimum of 120 semester credits required in the BS degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all Woodbury School of Business courses. No grade lower than a "C-" in core and specialization courses.
3. Residency hours: Minimum of 30 credit hours of business courses through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.

NOTE: Students will be limited to 9 hours of upper-division credit until MATRICULATION is completed.

### Digital Marketing, B.S.

**Careers**

1. Analyze quantitatively and qualitatively market conditions for insights that inform marketing strategy, campaigns, and plans.
2. Develop effective marketing plans and campaigns that account for customer differences and preferences, competition, and the impact of other relevant market factors.
3. Create digital marketing campaigns that include effective use of digital advertising, social media, and analytics.
4. Coordinate a significant team marketing project for a business client.
5. Communicate analysis, decisions, campaigns, and plans to stakeholders effectively.

**Related Careers**
- Marketing Managers

**Marketing, B.A.**

**Requirements**
The Marketing Department offers students three different tracks each providing a theoretical and in-depth professional preparation in the field. The first is the Marketing Management track which provides a broad base of experiential classes and the most flexibility in scheduling for employed students. The second is the Digital Marketing track which provides courses in internet marketing, social media, and web analytics. The newest track is Sales which prepares students for a career in sales with courses in personal selling, sales management, and sales analytics. Whichever track is chosen, a professional internship is highly encouraged.

**Total Program Credits: 120**

**Matriculation Requirements**

1. Students will be limited to 9 hours of upper-division credit until matriculation is completed.
2. Students must complete the following courses in order to matriculate: ACC 2110, ECON 2010, MyEducator or IM 2010 or IM 2600, MKTG 220G, MKTG 2390, MGMT 2340, MGMT 2400.
3. Students cannot take the following courses until they have matriculated: FIN 3100, MKTG 3450, MGMT 4860, MKTG 4650.

**General Education Requirements: 36 Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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**Distribution Courses:**

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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2010</td>
<td>Principles of Economics I SS (fulfills Social/Behavioral Science credit)</td>
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<td>3</td>
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<tr>
<td>Physical Science</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Humanities Distribution (Any Foreign Language 202G/2020 course)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Fine Arts Distribution</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Discipline Core Requirements: 52 Credits**

**Business Foundation Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2110</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>My Educator</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>or</td>
<td>IM 2010 Business Computer Proficiency (3)</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>IM 2600 Spreadsheet Applications (3)</td>
<td>2</td>
</tr>
</tbody>
</table>

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>MKTG 2390</td>
<td>Professional Business Presentations</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2400</td>
<td>Data Analytics for Business</td>
<td>3</td>
</tr>
</tbody>
</table>

**Business Core Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 3100</td>
<td>Principles of Finance 1</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3450</td>
<td>Operations Management 1</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3000</td>
<td>Organizational Behavior WE</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3600</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 493R</td>
<td>Entrepreneurship Lecture Series (1)</td>
<td>1</td>
</tr>
<tr>
<td>or</td>
<td>MGMT 495R Executive Lecture Series</td>
<td></td>
</tr>
<tr>
<td>MKTG 4860</td>
<td>Business Strategy Formulation and Implementation 1</td>
<td>3</td>
</tr>
</tbody>
</table>

**Marketing Core Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 1890</td>
<td>Introduction to Careers in Business</td>
<td>1</td>
</tr>
<tr>
<td>MKTG 3890</td>
<td>Business Career Strategy</td>
<td>2</td>
</tr>
<tr>
<td>MKTG 3300</td>
<td>Marketing Analytics</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3650</td>
<td>Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3660</td>
<td>Digital Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3700</td>
<td>Fundamentals of Product Management</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4600</td>
<td>Customer Experience</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4650</td>
<td>Marketing Management Capstone 1</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Requirements: 32 Credits**

**Complete 15 credits of marketing electives from the following list:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 3170</td>
<td>Digital Advertising (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 3220</td>
<td>Retail Management (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 335G</td>
<td>International Marketing GI (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Total Program Credits: 120**
# Marketing

## Marketing, B.A.

### Careers

1. Analyze quantitatively and qualitatively market conditions for insights that inform marketing strategy, campaigns, and plans.
2. Develop effective marketing plans and campaigns that account for customer differences and preferences, competition, and the impact of other relevant market factors.
3. Improve a customer solution through the effective use of product management best practices.
4. Create a digital marketing campaign that effectively employs digital advertising, social media, and analytics.
5. Apply a sales approach using customer-centric sales principles.
6. Coordinate a significant team marketing project for a business client.
7. Communicate analysis, decisions, campaigns, and plans to stakeholders effectively.

### Related Careers

- Advertising and Promotions Managers
- Marketing Managers
- Sales Managers
- Market Research Analysts and Marketing Specialists
- Business Teachers, Postsecondary

## Requirements

The Marketing Department offers students three different tracks each providing a theoretical and in-depth professional preparation in the field. The first is the Marketing Management track which provides a broad base of experiential classes and the most flexibility in scheduling for employed students. The second is the Digital Marketing track which provides courses in internet marketing, social media, and web analytics. The newest track is Sales which prepares students for a career in sales with courses in personal selling, sales management, and sales analytics. Whichever track is chosen, a professional internship is highly encouraged.

### Total Program Credits: 120

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 4610</td>
<td>Advanced Professional Selling (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 4620</td>
<td>Sales Operations (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 483R</td>
<td>Digital Marketing Internship (1-3)</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 481R</td>
<td>Marketing Internship (1-3)</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 482R</td>
<td>Sales Internship (1-4)</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 483R</td>
<td>Digital Marketing Internship (1-3)</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3670</td>
<td>Advertising and Promotion (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 3680</td>
<td>Marketing with Social Media (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 3685</td>
<td>Content Marketing (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 3690</td>
<td>Digital Marketing Analytics (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 4300</td>
<td>Marketing Data Science (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 4400</td>
<td>Competitive Intelligence (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 4510</td>
<td>Sales Management (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 4520</td>
<td>Customer Solutions (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete 3 credits of internship:

- MKTG 481R Marketing Internship (1-3) 3
- MKTG 482R Sales Internship (1-4) 3
- MKTG 483R Digital Marketing Internship (1-3) 3

Complete 12 credits of any foreign language course 1010, 1020, 2010 sequence 12

Complete 2 elective credits 1000 or higher. 2

### Notes:

1. Cannot be taken until student is matriculated.
2. Students will be required to complete My Educator with 80% or higher or IM 2010, or IM 2600 with a grade of B- or higher.
3. Maximum of 3 credits of internship count toward marketing electives.

### Graduation Requirements:

1. Completion of a minimum of 120 semester credits required in the BA degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all Woodbury School of Business courses. No grade lower than a "C-" in core and specialization courses.
3. Residency hours: Minimum of 30 credit hours of business courses through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

### Matriculation Requirements

1. Students will be limited to 9 hours of upper-division credit until matriculation is completed.
2. Students must complete the following courses in order to matriculate: ACC 2110, ECON 2010, MyEducator or IM 2010 or IM 2600, MKTG 220G, MKTG 2390, MGMT 2340, MGMT 2400.
3. Students cannot take the following courses until they have matriculated: FIN 3100, MGMT 3450, MGMT 4860, MKTG 4650.

### General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
<td></td>
</tr>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
<td></td>
</tr>
</tbody>
</table>
### Marketing, B.S.

#### Course Catalog 2023-2024

##### Distribution Courses:
- **ECON 2010** Principles of Economics I SS (fulfills Social/Behavioral Science credit) 3
- **Biology** 3
- **Physical Science** 3
- **Additional Biology or Physical Science** 3
- **Humanities Distribution** 3
- **Fine Arts Distribution** 3

#### Discipline Core Requirements: 52 Credits

##### Business Foundation Courses:
- **ACC 2110** Principles of Accounting I 3
- **My Educator** 2
  - or **IM 2010** Business Computer Proficiency (3) 2
  - or **IM 2600** Spreadsheet Applications (3) 2

#### Business Core Courses:
- **FIN 3100** Principles of Finance 1 3
- **MKTG 3600** Principles of Marketing 3
- **MGMT 3000** Organizational Behavior WE 3
- **MGMT 3450** Operations Management 1 3
- **ENTR 493R** Entrepreneurship Lecture Series (1)
  - or **MGMT 495R** Executive Lecture Series 1
- **MGMT 4860** Business Strategy Formulation and Implementation 1 3

#### Marketing Core Courses:
- **MKTG 1890** Introduction to Careers in Business 1
- **MKTG 3890** Business Career Strategy 2
- **MKTG 3300** Marketing Analytics 3
- **MKTG 3650** Professional Selling 3
- **MKTG 3660** Digital Marketing 3
- **MKTG 3700** Fundamentals of Product Management 3
- **MKTG 4600** Customer Experience 3
- **MKTG 4650** Marketing Management Capstone 1 3

#### Elective Requirements: 33 Credits

- Complete 15 credits of marketing electives from the following list. 4 15
  - **MKTG 3170** Digital Advertising (3)
  - **MKTG 3220** Retail Management (3)
  - **MKTG 335G** International Marketing GI (3)
  - **MKTG 3460** Internal Marketing and Corporate Imaging (3)
  - **MKTG 3620** Consumer Behavior (3)
  - **MKTG 3630** Services Marketing (3)
  - **MKTG 3640** Sales Management (3)
  - **MKTG 3670** Advertising and Promotion (3)
  - **MKTG 3680** Marketing with Social Media (3)
  - **MKTG 3685** Content Marketing (3)
  - **MKTG 3690** Digital Marketing Analytics (3)
  - **MKTG 4300** Marketing Data Science (3)
  - **MKTG 4400** Competitive Intelligence (3)
  - **MKTG 4610** Sales Operations (3)
  - **MKTG 4620** Advanced Professional Selling (3)
  - **MKTG 459R** Advanced Topics in Marketing (1-3)

Complete 3 credits of internship: 3 3
- **MKTG 481R** Marketing Internship (1-3) 3
- **MKTG 482R** Sales Internship (must be taken three times) (1-4) 3
- **MKTG 483R** Digital Marketing Internship (1-3) 3

Select 15 elective credits 1000 or higher. 15

#### Notes:
1. Students must be matriculated before taking this course.
2. Students will be required to complete My Educator with a score of 80% or higher or IM 2010 Business Computer Proficiency or IM 2060 Spreadsheet applications with a grade of B- or higher.
3. Maximum of 3 credit hours of internship count toward marketing electives.
4. It is encouraged that students use these 15 credits of marketing electives to earn a marketing certificate in professional selling, product management, or digital marketing.
5. Students will be required to complete MKTG 220G with a grade of B- or higher.

#### Graduation Requirements:
1. Completion of a minimum of 120 semester credits required in the BS degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all Woodbury School of Business courses. No grade lower than a “C-” in core and specialization courses.
3. Residency hours: Minimum of 30 credit hours of business courses through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

NOTE: Students will be limited to 9 hours of upper-division credit until matriculation is completed.

#### Marketing, B.S.

##### Careers

1. Analyze quantitatively and qualitatively market conditions for insights that inform marketing strategy, campaigns, and plans.
2. Develop effective marketing plans and campaigns that account for customer differences and preferences, competition, and the impact of other relevant market factors.
3. Improve a customer solution through the effective use of product management best practices.
4. Create a digital marketing campaign that effectively employs digital advertising, social media, and analytics.
5. Apply a sales approach using customer-centric sales principles.
6. Coordinate a significant team marketing project for a business client.
7. Communicate analysis, decisions, campaigns, and plans to stakeholders effectively.

Related Careers

• Advertising and Promotions Managers
• Marketing Managers
• Sales Managers
• Market Research Analysts and Marketing Specialists
• Business Teachers, Postsecondary
Master of Arts in Marriage and Family Therapy Graduate Programs

Marriage and Family Therapy Graduate Program

The Master of Arts in Marriage and Family Therapy Graduate Program is in the College of Humanities and Social Sciences. To find the most up-to-date information, including Program Learning Outcomes for the Marriage and Family Therapy Graduate Program, visit their website.

Course Descriptions

Degrees & Programs

Marriage and Family Therapy, M.A.

Requirements

The Master in Marriage and Family Therapy (MFT) trains students to be professionally competent in the field of marriage and family therapy. Through the application of systemic theories, skills, and ethics, students are prepared to serve a diverse client population. Students who successfully complete the program, including academic course work and supervised clinical practica, will be eligible for employment and licensure as an Associate Marriage and Family Therapist in the state of Utah. This program is offered in collaboration with the Behavioral Science Department and the family science undergraduate degree.

Total Program Credits: 54

Matriculation Requirements:

1. Completion of a bachelor's degree from a regionally-accredited college/university, a nationally accredited program, or an international college or university recognized by a Ministry of Education.
2. Admission to the Marriage and Family Therapy, M.A. program.

Discipline Core Requirements: 54 Credits

Complete the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFT 6000</td>
<td>Systemic Foundations of Marriage and Family Therapy</td>
<td>3</td>
</tr>
<tr>
<td>MFT 6010</td>
<td>Contemporary Approaches to MFT</td>
<td>3</td>
</tr>
<tr>
<td>MFT 6100</td>
<td>Ethical Issues in Marriage and Family Therapy</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete the following therapy classes:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFT 6200</td>
<td>Systemic Assessment and Diagnosis</td>
<td>3</td>
</tr>
<tr>
<td>MFT 6210</td>
<td>Couples Therapy</td>
<td>3</td>
</tr>
<tr>
<td>MFT 6220</td>
<td>Group Therapy</td>
<td>2</td>
</tr>
<tr>
<td>MFT 6230</td>
<td>Family Therapy</td>
<td>3</td>
</tr>
<tr>
<td>MFT 6240</td>
<td>Individual Therapy</td>
<td>2</td>
</tr>
</tbody>
</table>

Complete the following developmental courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFT 6300</td>
<td>Working with Diversity in MFT</td>
<td>3</td>
</tr>
<tr>
<td>MFT 6310</td>
<td>Child and Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>MFT 6320</td>
<td>Adult Issues in Human Development</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Complete 54 credits with a minimum GPA of 3.0 with a B- or higher in every class.
2. Complete program clinical and supervision hour requirements.
3. Complete program capstone requirements demonstrating achievement of student learning outcomes.
4. 42 credits must be taken at UVU. No more than 12 transfer credits will be accepted.

Marriage and Family Therapy, M.A.

Careers

1. Differentiate and apply foundational relational/systemic practice, theories and models.
2. Conduct systemic/relational assessment and treatment with individuals, couples and families.
3. Articulate the impact of human development (including ethnicity, gender and sexual identity on biopsychosocial health across the lifespan.
4. Demonstrate understanding of professional identity and adherence to the law, ethics and social responsibility.
5. Investigate research methodology and data analysis and synthesize evidence based practice in MFT.
6. Review contemporary issues in MFT, including: current intersections of knowledge and practice, community intersections and collaboration, and clinical business development.
7. Demonstrate competence in applying MFT skills within the local community.

Related Careers

- Marriage and Family Therapists
- Psychology Teachers, Postsecondary
Mathematics

Mathematics

The Mathematics department is in the College of Science. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Math department, visit their website.

Mathematics department

DEPARTMENT CHAIR
PARRY, Alan Assistant Professor

FACULTY
ABRAMSON, Mark A. Associate Professor
ANDERSEN, Michael Lecturer
ANDRIST, Kathryn Professor
BHATT, Harish Assistant Professor
BHATTACHARJEE, Debanjan Associate Professor
FAGAN, Joshua Assistant Professor
FAUROT, Vivienne Associate Professor
FEARNLEY, David Professor
FRANZ, Reinhard O.W. Associate Professor
HEINY, Erik Professor
HURDLE, Zachariah Assistant Professor
ISLAM, Mohammad Associate Professor
JI, Xiao Associate Professor
KIDD, John Assistant Professor
LEE, KC Lecturer
LEWIS, Scott C. Professor
LI, Ya Professor
LING, Chen Assistant Professor
LING, Jun (Michael) Professor
MOGILSKI, Wiktor Assistant Professor
PARRY, Alan Assistant Professor
POTTER, Matthew Lecturer
SIMMONS, Skyler C. Assistant Professor
SIMONS, Joe M. Lecturer
TAYLOR, Matthew Lecturer
VAN FRANKENHUIJSEN, Machiel Professor
VASILEVSKA, Violeta Professor
WALKER, Christine Professor
ZHU, Yingxian Associate Professor

Course Descriptions

Graduation Requirements:

Total Program Credits: 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>37 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td></td>
</tr>
<tr>
<td>ENGH 1005</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td></td>
</tr>
<tr>
<td>MATH 1210</td>
<td></td>
</tr>
<tr>
<td>MATH 121H</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>3</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td></td>
</tr>
<tr>
<td>HIST 1700</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td></td>
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</tbody>
</table>

Distribution Courses

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>10 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1220</td>
<td></td>
</tr>
<tr>
<td>MATH 122H</td>
<td></td>
</tr>
</tbody>
</table>

Complete 6 credits from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2210</td>
<td>3</td>
</tr>
<tr>
<td>MATH 221H</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2270</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2280</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same Foreign Language</td>
<td>8</td>
</tr>
<tr>
<td>Any course 1000 or higher 1</td>
<td>6</td>
</tr>
</tbody>
</table>

Notes:

1. MATH 1050 and MATH 1060 are required as prerequisites for MATH 1210.

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)

Course Catalog 2023-2024
Mathematics

3. Residency hours—minimum of 20 credit hours through course attendance at UVU
4. Completion of GE and specified departmental requirements

Mathematics, A.A.

Careers

2. The ability to communicate mathematics clearly, both verbally and in writing.

Related Careers

- Natural Sciences Managers
- Mathematicians
- Statisticians
- Mathematical Science Occupations, All Other
- Mathematical Science Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education

Mathematics, A.S.

Requirements

The AA and AS mathematics programs are intended to prepare students for the pursuit of a bachelor's degree. Those intending to transfer to other institutions should check transferability of courses with the institutions to which they intend to transfer. Following are the key knowledge, skill and ability goals of the AA and AS mathematics program: Knowledge of calculus, differential equations and linear algebra. The ability to communicate mathematics clearly, both verbally and in writing.

Total Program Credits: 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>36 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1210 Calculus I QL</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 121H Calculus I QL</td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td></td>
</tr>
<tr>
<td>HIST 2700 US History to 1877 AS</td>
<td>3</td>
</tr>
<tr>
<td>and HIST 2710 US History since 1877 AS (6)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700 American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740 US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000 American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100 American National Government AS (3)</td>
<td></td>
</tr>
<tr>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100 Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097 Fitness for Life TE (2)</td>
<td></td>
</tr>
</tbody>
</table>

Distribution Courses:

| Biology | 3 |
| Physical Science | 3 |
| Additional Biology or Physical Science | 3 |
| Humanities Distribution | 3 |

Fine Arts Distribution | 3
Social/Behavioral Science | 3
Discipline Core Requirements: | 10 Credits
| MATH 1220 Calculus II | 4 |
| or MATH 122H Calculus II | |
| Complete 6 credits from the following: | 6 |
| MATH 2210 Calculus III (4) | |
| or MATH 221H Calculus III | |
| MATH 2270 Linear Algebra (3) | |
| MATH 2280 Ordinary Differential Equations (3) | |
| MATH 290R Topics in Mathematical (3-5) | |
| STAT 2050 Introduction to Statistical Methods (4) | |

Elective Requirements: | 14 Credits
| Any course 1000 or higher* | 14 |

Notes:

1. MATH 1050 College Algebra QL and MATH 1060 Trigonometry QL are required as prerequisites for MATH 1210 Calculus I QL.

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Mathematics, A.S.

Careers

Program Learning Outcomes

2. The ability to communicate mathematics clearly, both verbally and in writing.

Related Careers

- Natural Sciences Managers
- Mathematicians
- Statisticians
- Mathematical Science Occupations, All Other
- Mathematical Science Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education

Mathematics, Minor

Requirements

The mathematics minor can be combined with a variety of degrees throughout the university.

Total Program Credits: 24

Matriculation Requirements:

1. Admitted to a bachelor degree program at UVU.

Discipline Core Requirements: | 24 Credits
| MATH 1210 Calculus I QL | 4 |
| or MATH 121H Calculus I QL | |
| MATH 1220 Calculus II | 4 |
Mathematics

or MATH 122H Calculus II
MATH 2210 Calculus III 4
or MATH 221H Calculus III
MATH 2270 Linear Algebra 3
MATH 2280 Ordinary Differential Equations 3

Choose at least two mathematics courses from the mathematics courses numbered 3210 and above 6

Notes:
1. Elective courses may NOT include MATH 4030, MATH 4040, or MATH 481R.

Graduation Requirements
1. To fulfill the requirements for a mathematics minor, students must achieve a minimum GPA of 2.4 for all attempted work in the seven mathematics courses required for the mathematics minor and have no course grade lower than "C" in any of the seven mathematics courses required for the mathematics minor (substitutions may be granted for some elective courses).

NOTE: The 6-credit pairs of courses, MATH 3210 Complex Variables and MATH 3400 Partial Differential Equations, or MATH 4610 Introduction to Numerical Analysis I and MATH 4620 Introduction to Numerical Analysis II, are recommended for students pursuing majors in the physical sciences, engineering, or computer science. Another recommended pair for computer science majors is MATH 3300 Foundations of Abstract Algebra and MATH 4340 Introduction to Number Theory.

Mathematics, Minor

Careers
2. The ability to communicate mathematics clearly, both verbally and in writing.

Related Careers
• Natural Sciences Managers
• Mathematicians
• Statisticians
• Mathematical Science Occupations, All Other
• Mathematical Science Teachers, Postsecondary
• Secondary School Teachers, Except Special and Career/Technical Education

Mathematics - Actuarial Science Emphasis, B.S.

Requirements
Mathematics degrees allow for a wide variety of employment options. The following careers are very mathematics centered, though in many cases additional training beyond a mathematics degree (or at least beyond a B.S. Mathematics degree) is needed to qualify for employment in these fields: actuarial work, education, research analysis, cryptology, systems analysis, robotics engineering, design modeling (creating cost efficient models), geomatics engineering, photogrammatism, stock trading, biomathematics, accounting or auditing, population ecology, aspects of forensic analysis and some types of computer programming design. There are also jobs for mathematics graduates in the federal government, mainly in the department of defense. The degree required depends on the type of job in the areas mentioned, and the salary level.

Total Program Credits: 120

Matriculation Requirements:
1. Completion of MATH 1210 Calculus I Ql and MATH 1220 Calculus II (or equivalent) with an overall GPA of 2.5 or better
2. Student must meet with the Math Department advisor and declare an intent to major in Mathematics

General Education Requirements: 39 Credits
ENGL 1010 Introduction to Academic Writing CC 3
or ENGH 1005 Literacies and Composition Across Contexts CC (5)
ENGL 2010 Intermediate Academic Writing CC 3
MATH 1210 Calculus I QL 4
or MATH 121H Calculus I QL (4)

Complete one of the following:
HIST 2700 US History to 1877 AS (3)
and HIST 2710 US History since 1877 AS (3)
HIST 1700 American Civilization AS (3)
HIST 1740 US Economic History AS (3)
POLS 1000 American Heritage SS (3)
POLS 1100 American National Government AS (3)

Complete the following:
PHIL 2050 Ethics and Values IH 3
HLTH 1100 Personal Health and Wellness TE (2)
or EXSC 1097 Fitness for Life TE 2

Distribution Courses:
Biology 3
PHYS 2210 Physics for Scientists and Engineers I PP 4
PHYS 2215 Physics for Scientists and Engineers I Lab 1
PHYS 2220 Physics for Scientists and Engineers II PP (4) (Required for Mathematics and Applied Mathematics Emphasis)
and PHYS 2225 Physics for Scientists and Engineers II Lab (1) (Required for Mathematics and Applied Mathematics Emphasis)
or One other Biology or Physical Science Distribution (Required for Applied Mathematics Emphasis) 3

Humanities 3
Fine Arts 3
Social/Behavioral Science 3

Discipline Core Requirements: 31 Credits

Complete the following:
CS 1400 Fundamentals of Programming 3
STAT 2050 Introduction to Statistical Methods 4
STAT 2060 Introduction to Statistical Computing 1
MATH 1220 Calculus II 5
or MATH 122H Calculus II (5)
MATH 2210 Calculus III 3
or MATH 221H Calculus III (3)
## Mathematics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MATH 2270</td>
<td>Linear Algebra</td>
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<tr>
<td>MATH 2280</td>
<td>Ordinary Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3250</td>
<td>Introduction to Advanced Calculus WE</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3300</td>
<td>Foundations of Abstract Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4210</td>
<td>Advanced Calculus I</td>
<td>3</td>
</tr>
</tbody>
</table>

### Elective Requirements:

Complete 3 credits chosen from the following:

- MATH 489R
- MATH 481R
- MATH 4610
- MATH 4510
- MATH 4340
- MATH 4330
- MATH 4320
- MATH 4310
- MATH 4250
- MATH 4220
- MATH 4100
- MATH 3640
- MATH 3400
- MATH 3320
- MATH 3210
- STAT 4720
- STAT 4710
- STAT 4000
- MATH 4750
- MATH 3750
- MATH 4400
- MATH 3010, MATH 3030, MATH 4030, or MATH 4040.

Complete 12 credits of upper division electives

Complete 9 credits of upper or lower division electives

### Emphasis Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ECON 2010</td>
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<td>ECON 2020</td>
<td>Principles of Economics II SS</td>
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<td>ACC 2110</td>
<td>Principles of Accounting I (3)</td>
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<td>ACC 2120</td>
<td>Principles of Accounting II (3)</td>
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<tr>
<td>ACC 3000</td>
<td>Financial Managerial and Cost Concepts</td>
<td>3</td>
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<tr>
<td>FIN 3100</td>
<td>Principles of Finance</td>
<td>3</td>
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<td>MATH 4750</td>
<td>Fundamentals of Actuarial Mathematics</td>
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</tr>
<tr>
<td>STAT 4000</td>
<td>Applied Regression and Time Series WE</td>
<td>3</td>
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<tr>
<td>STAT 4710</td>
<td>Mathematical Statistics-Probability and Statistics</td>
<td>3</td>
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<tr>
<td>STAT 4720</td>
<td>Mathematical Statistics-Statistical Inference</td>
<td>3</td>
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</table>

### Emphasis Elective Requirements:

Complete 3 credits chosen from the following:

- MATH 3210 Complex Variables (3)
- MATH 3320 Graph Theory and its Applications (3)
- MATH 3400 Partial Differential Equations (3)
- MATH 3640 Introduction to Optimization (3)
- MATH 4100 Differential Geometry of Curves and Surfaces (3)
- MATH 4220 Advanced Calculus II (3)
- MATH 4250 Introduction to Dynamical Systems (3)
- MATH 4310 Introduction to Modern Algebra I (3)
- MATH 4320 Introduction to Modern Algebra II (3)
- MATH 4330 Theory of Linear Algebra (3)
- MATH 4340 Introduction to Number Theory (3)
- MATH 4510 Foundations of Topology (3)
- MATH 4610 Introduction to Numerical Analysis I (3)
- MATH 4620 Introduction to Numerical Analysis II (3)
- MATH 481R Internship in Mathematics (1-4)
- MATH 489R Undergraduate Research in Mathematics (1-3)
- MATH 490R Topics in Mathematics (2-3)

### Notes:

1. Students planning to do graduate work in mathematics should take both of the year-long sequences MATH 4210 Advanced Calculus I, MATH 4220 Advanced Calculus II, and MATH 4310 Introduction to Modern Algebra I, MATH 4320 Introduction to Modern Algebra II, and acquire a reading knowledge of at least one foreign language chosen from French, German, or Russian.
2. Elective courses may NOT include MATH 3100, MATH 3200, MATH 3010, MATH 3030, MATH 4030, or MATH 4040.
3. Requires completion of a prerequisite course, which fulfills elective requirements.

### Graduation Requirements:

1. Completion of a minimum of 120 semester credits with at least 40 credit hours in upper-division courses.
2. Overall grade point average of 2.0 (C) or above, a minimum GPA of 2.4 in all MATH and STAT courses listed above, with no grade lower than a "C" in all listed PHYS, STAT, and MATH courses (substitutions may be granted for some elective courses).
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of general education and specified departmental requirements.
5. Complete an exit survey administered by the Mathematics Department Advisor.
6. Successful completion of at least one Global/Intercultural course.

### Mathematics - Actuarial Science Emphasis, B.S.

#### Careers

1. Knowledge of calculus, real analysis, differential equations, linear algebra, probability and statistics, economics, accounting principles, financial mathematics, actuarial models, regression analysis and broad knowledge base of other elective topics that could include topics such as optimization, numerical analysis, partial differential equations, and graph theory.
2. The ability to apply risk modeling to solve pricing, reserving, and other actuarial problems, particularly in the insurance industry, the ability to formulate and understand each risk model, and the ability to pass the two introductory actuarial exams.
3. The ability to communicate mathematics effectively, both verbally and in writing, expressing clear logical expositions of assumptions and risk models used to come to conclusions about prices, reserves, and risk measures.

### Related Careers

- Natural Sciences Managers
- Mathematicians
- Statisticians
- Mathematical Science Occupations, All Other
- Mathematical Science Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education

### Mathematics - Applied Mathematics Emphasis, B.S.

#### Requirements

Mathematics degrees allow for a wide variety of employment options. The following careers are very mathematics centered, though in many cases additional training beyond a mathematics degree (or at least beyond a B.S. Mathematics degree) is needed to qualify for employment in these fields: actuarial work, education, research, analysis, cryptography, systems analysis, robotics engineering, design modeling (creating cost efficient models), geomatics engineering.
photogrammatism, stock trading, biomathematics, accounting or auditing, population ecology, aspects of forensic analysis and some types of computer programming design. There are also jobs for mathematics graduates in the federal government, mainly in the department of defense. The degree required depends on the type of job in the areas mentioned, and the salary level.

**Total Program Credits: 120**

**Matriculation Requirements:**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
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<tbody>
<tr>
<td>1. Completion of MATH 1210 Calculus I QL and MATH 1220 Calculus II (or equivalent) with an overall GPA of 2.5 or better</td>
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</tr>
<tr>
<td>2. Student must meet with the Math Department advisor and declare an intent to major in Mathematics</td>
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**General Education Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5.0)</td>
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<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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**Complete one of the following:**

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<td>and HIST 2710</td>
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**Complete the following:**

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**Distribution Courses:**

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<td>and PHYS 2225</td>
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<tr>
<td>or One other Biology or Physical Science Distribution (Required for Applied Mathematics Emphasis)</td>
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<td>Humanities</td>
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<td>Fine Arts</td>
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<td>Social/Behavioral</td>
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**Discipline Core Requirements:**

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**Elective Requirements:**

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<td>Foundations of Abstract Algebra</td>
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**Emphasis Requirements:**

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<td>CS 1410</td>
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<td>STAT 3040</td>
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<td>MATH 3210</td>
<td>Complex Variables</td>
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<td>MATH 3400</td>
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**Emphasis Elective Requirements:**

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<tr>
<td>MATH 3320</td>
<td>Graph Theory and its Applications (3)</td>
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<td>or MATH 3640</td>
<td>Introduction to Optimization (3)</td>
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<td>MATH 3750</td>
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<td>MATH 4100</td>
<td>Differential Geometry of Curves and Surfaces (3)</td>
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<td>MATH 4220</td>
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<td>PHYS 3300</td>
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</table>
Mathematics - Mathematics Emphasis, B.S.

Requirements

Mathematics degrees allow for a wide variety of employment options. The following careers are very mathematics centered, though in many cases additional training beyond a mathematics degree (or at least beyond a B.S. Mathematics degree) is needed to qualify for employment in these fields: actuarial work, education, research analysis, crypotology, systems analysis, robotics engineering, design modeling (creating cost efficient models), geomatics engineering, photogrammatism, stock trading, biomathematics, accounting or auditing, population ecology, aspects of forensic analysis and some types of computer programming design. There are also jobs for mathematics graduates in the federal government, mainly in the department of defense. The degree required depends on the type of job in the areas mentioned, and the salary level.

Total Program Credits: 120

Matriculation Requirements:

1. Completion of MATH 1210 Calculus I QL and MATH 1220 Calculus II (or equivalent) with an overall GPA of 2.5 or better
2. Student must meet with the Math Department advisor and declare an intent to major in Mathematics

General Education Requirements: 39 Credits

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<tr>
<td>MATH 1210</td>
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<td>MATH 121H</td>
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<td>POLS 1100</td>
<td>American National Government AS</td>
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</table>

Complete the following:

1. PHIL 2050 Ethics and Values IH 3
2. HLTH 1100 Personal Health and Wellness TE (2)
3. EXSC 1097 Fitness for Life TE 2

Distribution Courses

Biology 3

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tr>
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<td>PHYS 2215</td>
<td>Physics for Scientists and Engineers I Lab</td>
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</table>

Complete one of the following:

1. PHYS 2220 Physics for Scientists and Engineers II PP (4) (Required for Mathematics and Applied Mathematics Emphasis) 3
2. PHYS 2225 Physics for Scientists and Engineers II Lab (1) (Required for Mathematics and Applied Mathematics Emphasis)
Discipline Core Requirements: 31 Credits

Complete the following:

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<tr>
<td>or</td>
<td>MATH 122H Calculus II (4)</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>MATH 2210 Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>MATH 221H Calculus III (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 2270</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2280</td>
<td>Ordinary Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3250</td>
<td>Introduction to Advanced Calculus WE</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3300</td>
<td>Foundations of Abstract Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4210</td>
<td>Advanced Calculus I</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements: 21 Credits

Complete 12 credits of upper division electives ² 12
Complete 9 credits of upper or lower division electives ² 9

Emphasis Requirements: 14 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3210</td>
<td>Complex Variables</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4220</td>
<td>Advanced Calculus II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4310</td>
<td>Introduction to Modern Algebra I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4330</td>
<td>Theory of Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4999</td>
<td>Mathematics Capstone WE</td>
<td>2</td>
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</tbody>
</table>

Emphasis Elective Requirements: 16 Credits

Complete 12 credits chosen from the following: At least one course must be from MATH 3400, MATH 4320, or MATH 4510 12

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3310</td>
<td>Discrete Mathematics (3)</td>
<td></td>
</tr>
<tr>
<td>MATH 3320</td>
<td>Graph Theory and its Applications (3)</td>
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</tr>
<tr>
<td>MATH 3400</td>
<td>Partial Differential Equations (3)</td>
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</tr>
<tr>
<td>MATH 3640</td>
<td>Introduction to Optimization (3)</td>
<td></td>
</tr>
<tr>
<td>MATH 4100</td>
<td>Differential Geometry of</td>
<td></td>
</tr>
</tbody>
</table>

Notes:

1. Students planning to do graduate work in mathematics should take both of the year-long sequences MATH 4210 Advanced Calculus I, MATH 4220 Advanced Calculus II, and MATH 4310 Introduction to Modern Algebra I, MATH 4320 Introduction to Modern Algebra II, and acquire a reading knowledge of at least one foreign language chosen from French, German, or Russian.

2. Elective courses may NOT include MATH 3100, MATH 3200, MATH 3010, MATH 3030, MATH 4030, or MATH 4040.

3. Requires completion of a prerequisite course, which fulfills elective requirements.

4. Elective courses may NOT include MATH 3100, MATH 3200, MATH 3010, MATH 3030, MATH 4030, or MATH 4040.

Graduation Requirements:

1. Completion of a minimum of 120 semester credits with at least 40 credit hours in upper-division courses.
Mathematics

2. Overall grade point average of 2.0 (C) or above, a minimum GPA of 2.4 in all MATH and STAT courses listed above, with no grade lower than a "C" in all listed PHYS, STAT, and MATH courses (substitutions may be granted for some elective courses).
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of general education and specified departmental requirements.
5. Complete an exit survey administered by the Mathematics Department Advisor.
6. Successful completion of at least one Global/Intercultural course.

Mathematics - Mathematics Emphasis, B.S.

Careers

1. Knowledge of calculus, real and complex analysis, differential equations, linear and abstract algebra, basic probability, and a broad knowledge base of other elective topics including topology, geometry, number theory, numerical analysis and statistics.
2. An awareness of how to apply and model real situations with mathematics, and the ability to formulate and understand logical arguments.
3. The ability to communicate mathematics effectively, both verbally and in writing, expressing clear logical proofs of mathematical hypotheses and constructing well defined counterexamples to false statements.

Related Careers

- Natural Sciences Managers
- Mathematicians
- Statisticians
- Mathematical Science Occupations, All Other
- Mathematical Science Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education

Mathematics Education, B.S.

Requirements

The Secondary Education – Mathematics major is designed for students who plan to teach Mathematics at middle, junior or high school level or for graduate studies in the field. The degree will prepare students to become state certified to teach the subject at any secondary level and help to address shortages of secondary Math educators in Utah. Graduates will not only understand the art of teaching but also have a deep content knowledge of Mathematics. Graduates of this program are able to accurately interpret and translate pictorial and descriptive information into mathematical statements; solve problems quantitatively and communicate results clearly; demonstrate understanding of numeric, algebraic and geometric reasoning; and, demonstrate computational skills in areas of applied mathematics.

Total Program Credits: 120

Matriculation Requirements:

1. Completion of MATH 1210 Calculus I QL, MATH 1220 Calculus II, and MATH 2210 Calculus III with a 3.0 GPA.
2. Completion of MATH 2040 Principles of Statistics QL with a grade of "B-" or higher.
3. ENGL and MATH QL courses must have a grade C or higher.
4. GPA of 3.0 or higher with no grade lower than a C in content area courses.
5. Completion of all General Education requirements and 70% of content area courses.
6. Pass LiveScan Criminal Background Check.

General Education Requirements: 38 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>STAT 2040</td>
<td>Principles of Statistics QL 1</td>
<td>4</td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
<td>2</td>
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</tbody>
</table>

Distribution Courses

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>PHYS 2210</td>
<td>Physics for Scientists and Engineers I PP</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PHYS 2215</td>
<td>Physics for Scientists and Engineers I Lab</td>
<td>1</td>
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</table>

Additional Biology or Physical Science:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
<td>3</td>
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</tbody>
</table>

Social/Behavioral Science:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Discipline Core Requirements: 50 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1210</td>
<td>Calculus I 1</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 121H</td>
<td>Calculus I (5)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 122H</td>
<td>Calculus II (5)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2210</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 221H</td>
<td>Calculus III (3)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2270</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2280</td>
<td>Ordinary Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3000</td>
<td>History of Mathematics WE</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3010</td>
<td>Methods of Secondary School Mathematics Teaching</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3030</td>
<td>Algebra for Secondary Mathematics Teaching</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3100</td>
<td>Foundations of Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3200</td>
<td>Foundations of Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3300</td>
<td>Foundations of Abstract Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4030</td>
<td>Geometry for Secondary Mathematics Teaching</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4040</td>
<td>Statistics and Probability for Secondary Mathematics Teaching</td>
<td>3</td>
</tr>
<tr>
<td>STAT 3040</td>
<td>Probability and Statistics for Engineering and the Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

414 | Course Catalog 2023-2024 | Utah Valley University |
Complete 5 credits of any courses 1000 or higher 5
Professional Education Core Requirements 3 32 Credits
EDSC 1010 Introduction to Education 2
EDSC 3000 Educational Psychology 3
EDSC 325G Equitable Technology Integration GII 2
EDSP 340G Exceptional Students GII 2
EDSC 4200 Classroom Management I 2
EDSC 4250 Classroom Management II 2
EDSC 4440 Content Area Literacies 3
EDSC 445G Multicultural Instruction GII 3
EDSC 455G Secondary Curriculum Instruction and Assessment GII 3
EDSC 4850 Student Teaching Secondary 8
EDSC 4990 Teacher Performance Assessment Project WE 2

Notes:
1. According to student placement, pre-requisites may be required
2. PHYS 2220 Physics for Scientists and Engineers II PP recommended
3. Must be completed with a grade of B- or higher

Graduation Requirements:
1. Completion of a minimum of 120 semester credits with at least 40 credit hours in upper-division courses.
2. Overall Grade of 3.0 (B) or above with no grade lower than a C or better in MATH or STAT courses and no grade lower than a B- in EDSC or EDSP courses.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Completion of Math Department Exit Survey.
6. Successful completion of at least one Global/Intercultural course.

Mathematics Education, B.S.

Careers
1. Understand deeply the mathematics they will teach in the future; become familiar with the National Council of Teachers of Mathematics (NCTM) Principles and Standards for School Mathematics;
2. Apply national and state standards for mathematics education to develop content-appropriate lessons;
3. Use and compare different assessment techniques; develop a disposition favoring continual gathering and use of information about their students' mathematical understandings;
4. Appropriately and responsibly use technology to enhance opportunities for students' mathematical thinking;
5. Understand the development of mathematics through numerous and varied experiences related to the cultural, historical, and scientific evolution of mathematics;
6. Learn to use their mathematics and pedagogy knowledge flexibly in authentic situations through field experiences with secondary students under the supervision of highly qualified, experienced teachers and university supervisors.

Related Careers
- Mathematical Science Teachers, Postsecondary
- Education Teachers, Postsecondary
- Middle School Teachers, Except Special and Career/Technical Education

• Secondary School Teachers, Except Special and Career/Technical Education

Statistics, B.S.

Requirements
The Department of Mathematics is pleased to offer a B.S. degree in Statistics. Statisticians assist in the collection and analysis of data thus providing decision makers information on which to base decisions. Knowledge of statistics and data handling helps students in almost every discipline. There are many opportunities in the job market for students with a degree in Statistics, and the program is ideal as preparation for a graduate degree in Statistics in any major university. The degree offers a wide variety of applied and theoretical courses in statistics, including statistical computing using both SAS and R programming.

Total Program Credits: 120

Matriculation Requirements:
1. Completion of MATH 1210 Calculus I QL and MATH 1220 Calculus II (or equivalent) with an overall GPA of 2.5 or better
2. Student must meet with the math department advisor and declare an intent to major in statistics.

General Education Requirements: 39 Credits
ENGL 1010 Introduction to Academic Writing CC 3
or ENGH 1005 Literacies and Composition Across Context CC (5)
ENGL 2010 Intermediate Academic Writing CC 3
MATH 1210 Calculus I QL 4
or MATH 121H Calculus I QL (5)
Complete one of the following: 3
HIST 2700 US History to 1877 AS (3)
and HIST 2710 US History since 1877 AS (3)
HIST 1700 American Civilization AS (3)
HIST 1740 US Economic History AS (3)
POLS 1000 American Heritage SS (3)
POLS 1100 American National Government AS (3)

Complete the following:
PHIL 2050 Ethics and Values IH 3
HLTH 1100 Personal Health and Wellness TE 2
or EXSC 1097 Fitness for Life (2)

Distribution Courses:
Biology 3
PHYS 2210 Physics for Scientists and Engineers I PP (co-requisite lab required) (4)
PHYS 2215 Physics for Scientists and Engineers I Lab 1

One other Biology or Physical Science Distribution 3
Humanities Distribution 3
Fine Arts Distribution 3
Social/Behavioral Science 3

Discipline Core Requirements: 49 Credits
CS 1400 Fundamentals of Programming 3
CS 1410 Object Oriented Programming 3
Mathematics

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>MATH 122H Calculus II (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 2210</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>MATH 221H Calculus III (3)</td>
<td></td>
</tr>
<tr>
<td>MATH 2270</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>STAT 2050</td>
<td>Introduction to Statistical Methods</td>
<td>4</td>
</tr>
<tr>
<td>STAT 4000</td>
<td>Applied Regression and Time Series WE</td>
<td>3</td>
</tr>
<tr>
<td>STAT 4100</td>
<td>Design of Experiment</td>
<td>3</td>
</tr>
<tr>
<td>STAT 4400</td>
<td>Multivariate Analysis WE</td>
<td>3</td>
</tr>
<tr>
<td>STAT 4710</td>
<td>Mathematical Statistics-Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>STAT 4720</td>
<td>Mathematical Statistics-Statistical Inference</td>
<td>3</td>
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</table>

Complete three of the following: 9

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>STAT 4200</td>
<td>Survey Sampling (3)</td>
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<tr>
<td>STAT 4300</td>
<td>Stochastic Processes (3)</td>
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</tr>
<tr>
<td>STAT 4500</td>
<td>Nonparametric Statistics (3)</td>
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</tr>
<tr>
<td>STAT 4600</td>
<td>Statistical Process Control (3)</td>
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</table>

Complete 9 hours of upper level MATH or STAT courses 9

Elective Requirements: 33 Credits

Complete 9 credits of upper division electives 9

Complete 24 credits of upper or lower division electives 24

Notes:
1. Elective courses may NOT include MATH 3100, MATH 3200, MATH 3010, MATH 3030, MATH 4030, or MATH 4040.

Graduation Requirements:
1. Completion of a minimum of 120 semester credits with at least 40 credit hours in upper-division courses.
2. Overall grade point average of 2.0 (C) or above, a minimum GPA of 2.4 in all MATH and STAT courses listed above, with no grade lower than a "C" in all listed MATH and STAT courses (substitutions may be granted for some elective courses).
3. Residency hours- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Complete an exit survey administered by the Mathematics Department Advisor.
6. Successful completion of at least one Global/Intercultural course.

Statistics, B.S.

Careers

1. Demonstrate depth and breadth of understanding of statistics in core and elective areas through careful analysis.
2. Apply statistical reasoning and analysis in content specific (scientific) areas.
3. Communicate results of statistical analyses to a wide audience.
4. Use modern statistical software to support statistical analyses and promote understanding.

Related Careers
- Natural Sciences Managers
Mathematics Graduate Programs

Mathematics Graduate Programs

The Mathematics Graduate Programs are in the College of Science. To find the most up-to-date information, including Program Learning Outcomes for the Mathematics Graduate Programs, visit their website.

Mathematics Graduate Programs

Course Descriptions

Statistics................................................................. 757
Mathematics.............................................................. 757

Degrees & Programs

Master of Science - Mathematics Education, M.S.

Requirements

The Master of Science in Mathematics Education (MS-MEd) is designed for individuals interested in strengthening their understanding of mathematics, statistics, and educational theory and practice in order to enrich their own teaching of mathematics and statistics. Completion of the program will also qualify individuals to teach concurrent enrollment courses and to teach at some community colleges and universities. For college-level academic concurrent enrollment (dual-credit) courses, the Utah Valley University Mathematics Department requires that instructors have a master’s or doctoral degree with 18 graduate hours in mathematics or statistics. However, the MS-MEd does not lead to a teaching license. The program is flexible to serve the needs of in-service teachers.

Total Program Credits: 30

Matriculation Requirements:

1. Admission to the Graduate Program.
2. A bachelor’s degree from a regionally accredited institution, equivalent undergraduate coursework to the Mathematics Endorsement 4, and at least two years of teaching experience.
3. A passing score on the Entrance Exam or MATH 6000 Mathematics Core Review.

Discipline Core Requirements: 30 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 6010</td>
<td>Theory of Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 6100</td>
<td>Topics in Geometry and Topology</td>
<td>3</td>
</tr>
<tr>
<td>MATH 6210</td>
<td>Real Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 6310</td>
<td>Modern Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 6330</td>
<td>Advanced Linear Algebra</td>
<td>3</td>
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<tr>
<td>EDUC 6100</td>
<td>Research Methodology</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6200</td>
<td>Masters Project</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 6320</td>
<td>21st Century Instruction and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 691R</td>
<td>Project I</td>
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<tr>
<td>EDUC 692R</td>
<td>Project II</td>
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</tr>
<tr>
<td>EDUC 693R</td>
<td>Project III</td>
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</table>
Complete One of the following courses for a total of 3 credits
<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>STAT 6020</td>
<td>Theory of Statistics II</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 30 credits.
2. Overall grade point average of 3.0 (B) or above.
3. Residency hours -- minimum of 21 credit hours through course attendance at UVU.
4. Courses and project requirements must be finished within a five-year period. No courses will apply toward graduation which are older than five years.
5. Individual grade of C or higher in all coursework applied toward the degree.

Master of Science - Mathematics Education, M.S. Careers

1. Offer improved math instruction based on a solid foundation of graduate mathematics content and best practices for teaching strategies and technologies.
2. Implement problem-based, technology-intensive and student focused instruction by achieving the necessary breadth of expertise, skills, and professional disposition.
3. Teach mathematical concepts more effectively to secondary students from varied backgrounds and with diverse goals, from the broader, deeper, and more advanced perspectives provided by their course and project work.
4. Solve problems arising from a variety of other disciplines using mathematical methods of formulation, computation, and analysis.
5. Design learning environments and curricula that can be immediately incorporated in classroom lessons, based on the expert knowledge they have gained.

Related Careers

- Mathematical Science Teachers, Postsecondary
- Education Teachers, Postsecondary
- Middle School Teachers, Except Special and Career/Technical Education
- Secondary School Teachers, Except Special and Career/Technical Education

Mathematics, Graduate Certificate

Requirements

The Graduate Certificate in Mathematics aims to improve mathematics education and student achievement by focusing on two specific research-supported areas. First, by delivering high-quality content-based knowledge critical to student achievement, and second, by targeting in-service teachers who desire to teach dual credit in high school, given that dual-credit/dual-enrollment students are more likely to persist in college and are more likely to complete a bachelor’s degree in less time than those who did not attempt college credits in high school. Graduate courses for this program will be available to match in-service teacher’s schedules—e.g., evenings and during summer sessions—taught on the main campus and live-interactive by Utah Valley University’s full-time faculty.

Total Program Credits: 18

Matriculation Requirements:

1. Admission to the Graduate Program
Mathematics Graduate Programs

2. A bachelor's degree from a regionally accredited institution, equivalent undergraduate coursework to the Mathematics Endorsement 4 or Secondary Mathematics Endorsement, and at least two years of teaching experience.

3. A passing score on the Entrance Exam or MATH 6000 Mathematics Core Review.

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>18 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Six of the following courses for a total of 18 credits</td>
<td>18</td>
</tr>
<tr>
<td>MATH 6100</td>
<td>Topics in Geometry and Topology (3.0)</td>
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<tr>
<td>MATH 6210</td>
<td>Real Analysis (3)</td>
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<tr>
<td>MATH 6310</td>
<td>Modern Algebra (3)</td>
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<tr>
<td>MATH 6330</td>
<td>Advanced Linear Algebra (3)</td>
</tr>
<tr>
<td>MATH 6350</td>
<td>Introduction to Combinatorics (3)</td>
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<tr>
<td>MATH 6410</td>
<td>Topics in Ordinary Differential Equations (3)</td>
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<tr>
<td>MATH 6610</td>
<td>Numerical Methods and Modeling (3)</td>
</tr>
<tr>
<td>MATH 6620</td>
<td>Topics in Numerical Analysis (3)</td>
</tr>
<tr>
<td>MATH 6700</td>
<td>Applications of Mathematics (3)</td>
</tr>
<tr>
<td>STAT 6010</td>
<td>Theory of Statistics I (3)</td>
</tr>
<tr>
<td>STAT 6020</td>
<td>Theory of Statistics II (3)</td>
</tr>
<tr>
<td>or other approved courses</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 18 credits.
2. Overall grade point average of 3.0 (B) or above.
3. Residency hours -- minimum of 12 credit hours through course attendance at UVU.
4. Courses and project requirements must be finished within a five-year period. No courses will apply toward graduation which are older than five years.

Mathematics, Graduate Certificate

Careers

1. Offer improved math instruction based on a solid foundation of graduate mathematics content and best practices for teaching strategies and technologies.
2. Implement problem-based, technology-intensive and student focused instruction by achieving the necessary breadth of expertise, skills, and professional disposition.
3. Teach mathematical concepts more effectively to secondary students from varied backgrounds and with diverse goals, from the broader, deeper, and more advanced perspectives provided by their course and project work.
4. Solve problems arising from a variety of other disciplines using mathematical methods of formulation, computation, and analysis.

Related Careers

- Mathematical Science Teachers, Postsecondary
- Education Teachers, Postsecondary
- Middle School Teachers, Except Special and Career/Technical Education
- Secondary School Teachers, Except Special and Career/Technical Education
Music

The Music department is in the School of the Arts. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Music department, visit their website.

Music Department

DEPARTMENT CHAIR
O'FLYNN, Jeffrey E. Assistant Professor

FACULTY
BAKER, David Assistant Professor
CHAU, Cheung Associate Professor
CRIDDLE, Reed Professor
DEMSKE, Hilary Professor
FAIRBANKS, Donna Professor
HAGEN, W. Ross Associate Professor
HAN, Cheng Yuan Assistant Professor
HEATH, Melissa Associate Professor
HURTADO, Isaac Associate Professor
JONES, Shane Assistant Professor
NIELSEN, Ryan Associate Professor
O'FLYNN, Jeffrey E. Assistant Professor
RYTTING, Bryce Professor
SORENSEN, D. Todd Artist in Residence
WORTHEN, Cherilyn Associate Professor

Course Descriptions

Music

Degrees & Programs

Music, A.S.

Requirements
The Associate in Science in Music is a two-year program that offers foundational studies in musicianship and performance. Prepares students for continuation in a four-year degree program in music.

Total Program Credits: 63

Matriculation Requirements:
1. Pass performance audition and interview with music faculty.
2. Complete music theory diagnostic exam. Students who do not earn at least 80% on the music department theory diagnostic exam must complete MUSC 1105 before MUSC 1110.

General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td></td>
</tr>
<tr>
<td>Complete one of the following: (Note: A higher level MATH course may substitute for this requirement)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors)</td>
<td></td>
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</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
<td></td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
<td>2</td>
</tr>
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Distribution Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Physical Science (recommend PHYS 1750 The Acoustics of Music (3))</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td></td>
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</tr>
<tr>
<td>Fine Arts Distribution</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td></td>
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Discipline Core Requirements: 28 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1110</td>
<td>Music Theory I</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1120</td>
<td>Music Theory II</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1130</td>
<td>Aural Skills I</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1140</td>
<td>Aural Skills II</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2110</td>
<td>Music Theory III</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2125</td>
<td>Music Theory IV</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2130</td>
<td>Aural Skills III</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2140</td>
<td>Aural Skills IV</td>
<td>1</td>
</tr>
</tbody>
</table>

Complete 4 credits from the following: 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 124R</td>
<td>UVU Concert Choir (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 125R</td>
<td>University Band (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 322R</td>
<td>Chamber Choir (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 327R</td>
<td>Deep Green-Tenor/Bass Choir (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 328R</td>
<td>Emerald Singers-Soprano/Alto Choir (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 330R</td>
<td>Wind Symphony (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 332R</td>
<td>Jazz Orchestra (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 370R</td>
<td>Symphony Orchestra (1)</td>
<td></td>
</tr>
</tbody>
</table>

Complete 4 credits of the following on major instrument or voice: 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 250R</td>
<td>Private Lessons for Music Majors (1)</td>
<td></td>
</tr>
</tbody>
</table>

Complete 4 credits of the following on major instrument or voice: 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 251R</td>
<td>Performance Class (1)</td>
<td></td>
</tr>
</tbody>
</table>
Music

Student must pass the Departmental Keyboard Proficiency Examination or complete MUSC 1150, MUSC 1160, MUSC 2150, and MUSC 2160.

Graduation Requirements:
1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above. MUSC 250R Private Lessons for Music Majors requires a grade B or higher. All other MUSC courses require a C grade or higher.
3. Residency hours: minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements, including a sophomore review and concert attendance requirements.

Music, A.S.

Careers

1. Performance: Students will perform music on a primary instrument or voice from a broad historical and stylistic range of solo and ensemble repertoire with technique, accuracy, expressivity, stage presence, and creativity
2. Aural and Visual Analysis: Students will identify musical elements and organizational patterns through aural and visual analysis
3. Keyboard Skills: Students will demonstrate proficiency in keyboard techniques and fingerings through the performance of scales, sight-reading, prepared musical pieces, harmonization, and improvisation.

Related Careers

- Secondary School Teachers, Except Special and Career/Technical Education
- Musicians and Singers

Collaborative Piano-Chamber Music, Certificate of Proficiency

Requirements

The Certificate of Proficiency in Collaborative Piano-Chamber Music is a one-year program designed to provide further education for pianists interested in collaborating with instrumentalists. The program provides a thorough education in all aspects of piano technique related to instrumentalist accompanying, including strings, woodwinds, brass, and percussion. The degree is open to current UVU students and local pianists seeking to refine their collaborative piano skills through instrumental literature.

Total Program Credits: 16

Matriculation Requirements:
1. Complete entrance audition with music department faculty.

Discipline Core Requirements:
- MUSC 245R Private Lessons II (Piano)
- MUSC 245R Private Lessons II (Voice)
- MUSC 2001 Diction for Singers I
- MUSC 2002 Diction for Singers II
- MUSC 3005 Vocal Literature I
- MUSC 3006 Vocal Literature II
- GER 1010 and GER 1020 Beginning German I and II
- or FREN 1010 and FREN 1020 Beginning French I and II

Notes:
- See advisor for course recommendation.

Graduation Requirements:
1. Completion of a minimum of 16 semester credits.
2. Overall grade point average of 2.0 (C) or above. MUSC 250R requires a grade B or higher. All other MUSC courses require a C grade or higher.
3. Residency hours: minimum of 4 credit hours through course attendance at UVU.

Collaborative Piano-Vocal Coaching, Certificate of Proficiency

Careers

Program Learning Outcomes
1. Aural literacy. Demonstrate with competency the ability to apply the elements of music in performance contexts with other musicians.
2. Professional excellence. Demonstrate with competency the ability to accompany an instrumental soloist or chamber ensemble in a way that reflects a professional level of aptitude and knowledge of technical and artistic skill sets.
3. Creative diversity. Demonstrate with competency the ability to include individual expression in instrumental repertoire to communicate and express unique ideas.

Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Musicians and Singers

Collaborative Piano-Vocal Coaching, Certificate of Proficiency

Requirements

The UVU Certificate of Proficiency in Collaborative Piano/Vocal Coaching is a one-year program designed to provide further education for pianists interested in collaborating with vocalists. The program provides a thorough education in all aspects of piano technique related to vocal accompanying, diction, and literature. The degree is open to current UVU students and local pianists enrolled at UVU seeking to refine their collaborative piano skills through vocal literature.

Total Program Credits: 16

Matriculation Requirements:
1. Complete entrance audition with music department faculty.

Discipline Core Requirements:
- MUSC 245R Private Lessons II (Piano)
- MUSC 245R Private Lessons II (Voice)
- MUSC 3501 Diction for Singers II
- MUSC 3005 Vocal Literature I
- MUSC 3006 Vocal Literature II
- GER 1010 and GER 1020 Beginning German I and II
- or FREN 1010 and FREN 1020 Beginning French I and II

Notes:
- See advisor for course recommendation.

Graduation Requirements:
1. Completion of a minimum of 16 semester credits.
2. Overall grade point average of 2.0 (C) or above. MUSC 245R requires a grade B or higher. All other MUSC courses require a C grade or higher.
3. Residency hours: minimum of 4 credit hours through course attendance at UVU.

Course Catalog 2023-2024

Utah Valley University
Music

Graduation Requirements:
1. Completion of a minimum of 16 semester credits.
2. Overall grade point average of 2.0 (C) or above. MUSC 245R requires a grade B or higher. All other MUSC courses require a C grade or higher.
3. Residency hours—minimum of 4 credit hours through course attendance at UVU.

Collaborative Piano-Vocal Coaching, Certificate of Proficiency

Careers
1. Aural literacy. Demonstrate with competency the ability to apply the elements of music in performance contexts with other musicians.
2. Professional excellence. Demonstrate with competency the ability to coach and accompany a vocal soloist in a way that reflects a professional level of aptitude and knowledge of technical and artistic skill sets.
3. Creative diversity. Demonstrate with competency the ability to include individual expression in vocal repertoire to communicate and express unique ideas.

Related Careers
• Art, Drama, and Music Teachers, Postsecondary
• Musicians and Singers

Music Technology, Certificate of Proficiency

Careers
1. Produce audio for live performance, streaming media, and fixed media distribution.
2. Create real-time and sequenced digital music data; i.e., Musical Instrument Digital Interface and Open Sound Control.
3. Manipulate real-time and sequenced digital music data; i.e., Musical Instrument Digital Interface and Open Sound Control.
4. Create electro-acoustic music with technical facility and expressive musicianship.
5. Perform electro-acoustic music with technical facility and expressive musicianship.

Related Careers
• Art, Drama, and Music Teachers, Postsecondary
• Music Directors and Composers
• Sound Engineering Technicians

Piano Pedagogy, Certificate of Proficiency

Requirements
The UVU Certificate of Proficiency in Piano Pedagogy is a one-year program designed to equip present and prospective piano teachers with rigorous and practical musical training. The program is open to current teachers and UVU students seeking non-piano degrees who are seeking to enhance their individual piano ability and deepen their knowledge of pedagogical theories and techniques.

Total Program Credits: 16

Matriculation Requirements
1. Complete entrance audition with music department faculty.

Graduation Requirements:
1. Completion of a minimum of 16 semester credits.
2. Overall grade point average of 2.0 (C) or above. MUSC 245R requires a grade B or higher. All other MUSC courses require a C grade or higher.
3. Residency hours—minimum of 4 credit hours through course attendance at UVU.

Piano Pedagogy, Certificate of Proficiency

Careers
1. Investigate the current and historical methods in teaching elementary and intermediate piano students.
2. Evaluate piano repertoire and technique for elementary and intermediate piano students.
3. Perform piano repertoire and technique for elementary and intermediate piano students.
4. Design teaching strategies for a given student using appropriate pedagogical skills and teaching applications.
Music

Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Musicians and Singers

Music, Minor

Requirements

A Minor in Music offers introductory studies in musicianship and performance, including theory, aural skills, private instruction, and ensemble participation.

Total Program Credits: 18

Matriculation Requirements:

1. Admitted to a bachelor degree program at UVU.
2. Pass performance audition and interview with music faculty.
3. Complete music theory diagnostic exam.

Discipline Core Requirements: 18 Credits

Complete the following:

Students who don't earn at least 80% on the music department theory diagnostic test must complete MUSC 1105 before MUSC 1110.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1110</td>
<td>Music Theory I</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1130</td>
<td>Aural Skills I</td>
<td>1</td>
</tr>
</tbody>
</table>

Complete 4 credits from the following: 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 145R</td>
<td>Private Lessons I (1)</td>
</tr>
<tr>
<td>MUSC 245R</td>
<td>Private Lessons II (1)</td>
</tr>
<tr>
<td>MUSC 250R</td>
<td>Private Lessons for Music Majors (1)</td>
</tr>
</tbody>
</table>

Six additional credit hours of music courses 6

Complete 4 credits from the following: 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 124R</td>
<td>UVU Concert Choir (1)</td>
</tr>
<tr>
<td>MUSC 125R</td>
<td>University Band (1)</td>
</tr>
<tr>
<td>MUSC 306R</td>
<td>Advanced Keyboard Skills (1)</td>
</tr>
<tr>
<td>MUSC 322R</td>
<td>Chamber Choir (1)</td>
</tr>
<tr>
<td>MUSC 327R</td>
<td>Deep Green-Tenor/Bass Choir (1)</td>
</tr>
<tr>
<td>MUSC 328R</td>
<td>Emerald Singers-Soprano/Alto Choir (1)</td>
</tr>
<tr>
<td>MUSC 330R</td>
<td>Wind Symphony (1)</td>
</tr>
<tr>
<td>MUSC 331R</td>
<td>Percussion Ensemble (1)</td>
</tr>
<tr>
<td>MUSC 332R</td>
<td>Jazz Orchestra (1)</td>
</tr>
<tr>
<td>MUSC 333R</td>
<td>Small Jazz and Commercial Ensembles (1)</td>
</tr>
<tr>
<td>MUSC 334R</td>
<td>Pep Band (1)</td>
</tr>
<tr>
<td>MUSC 370R</td>
<td>Symphony Orchestra (1)</td>
</tr>
<tr>
<td>MUSC 372R</td>
<td>Chamber Orchestra (1)</td>
</tr>
<tr>
<td>MUSC 373R</td>
<td>Advanced Small Ensembles (1)</td>
</tr>
<tr>
<td>MUSC 423R</td>
<td>Opera Workshop (1)</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. All MUSC courses require a C grade or higher.

Music, Minor

Careers

1. Analyze the elements, forms, and processes in music.
2. Evaluate the elements, forms, and processes in music.
3. Develop musical judgements and self-assess their efforts.
4. Defend musical judgements.
5. Perform associated repertoire with technical proficiency and artistic expression on their instrument or voice.
6. Use collaboration skills in making music.

Commercial Music, B.M.

Requirements

The Bachelor of Music in Commercial Music prepares students for professional work in the music media industry. Students may select from two tracks, one in media composition and the second in music technology and production.

Total Program Credits: 121

Matriculation Requirements:

1. Pass performance audition, portfolio review, and interview with music faculty.
2. Complete music theory diagnostic exam. Students who do not earn at least 80% on the music department theory diagnostic exam must complete MUSC 1105 before MUSC 1110.

General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Context CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
</tr>
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</table>

Choose one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
</tr>
</tbody>
</table>

Complete the following

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
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<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
<td></td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
<td>2</td>
</tr>
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</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1750</td>
<td>The Acoustics of Music PP (3) (recommended)</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>MUSC 1030</td>
<td>American Popular Music FF (Fine Arts Distribution)</td>
<td>3</td>
</tr>
<tr>
<td>or MUSC 1236</td>
<td>Survey of Jazz History</td>
<td></td>
</tr>
</tbody>
</table>

Discipline Core Requirements: 86 Credits

Musicianship Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1110</td>
<td>Music Theory I</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1115</td>
<td>Music Notation and Score Preparation</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1120</td>
<td>Music Theory II</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1130</td>
<td>Aural Skills I</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1140</td>
<td>Aural Skills II</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1350</td>
<td>Studio Conducting</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2110</td>
<td>Music Theory III</td>
<td>3</td>
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<tr>
<td>MUSC 2125</td>
<td>Music Theory IV</td>
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<tr>
<td>MUSC 2130</td>
<td>Aural Skills III</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2140</td>
<td>Aural Skills IV</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 349G</td>
<td>Global Musical Styles and Ideas GI</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 3450</td>
<td>Music History and Literature I WE</td>
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</tr>
<tr>
<td>MUSC 3451</td>
<td>Music History and Literature II WE</td>
<td>3</td>
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</table>

Individual Musicianship Studies:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 250R</td>
<td>Private Lessons for Music Majors (Repeated 4 times on major instrument or voice) (Includes completion of sophomore review)</td>
<td>4</td>
</tr>
<tr>
<td>MUSC 251R</td>
<td>Performance Class (Repeated 4 times on major instrument or voice) (Includes completion of sophomore review)</td>
<td>4</td>
</tr>
<tr>
<td>MUSC 360R</td>
<td>Commercial Music Private Lessons</td>
<td>4</td>
</tr>
</tbody>
</table>

Student must pass the Departmental Keyboard Proficiency Examination for Commercial Music or complete MUSC 1150, MUSC 1160, MUSC 2170, and MUSC 2180

Large Ensembles:

Complete 4 credits from the following: 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 322R</td>
<td>Chamber Choir (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 327R</td>
<td>Deep Green-Tenor/Bass Choir (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 328R</td>
<td>Emerald Singers-Soprano/Alto Choir (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 330R</td>
<td>Wind Symphony (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 332R</td>
<td>Jazz Orchestra (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 370R</td>
<td>Symphony Orchestra (1)</td>
<td></td>
</tr>
</tbody>
</table>

Complete 4 credits from the following: 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 322R</td>
<td>Chamber Choir (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 327R</td>
<td>Deep Green-Tenor/Bass Choir (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 328R</td>
<td>Emerald Singers-Soprano/Alto Choir (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 331R</td>
<td>Percussion Ensemble (1)</td>
<td></td>
</tr>
</tbody>
</table>

MUSC 333R | Small Jazz and Commercial Ensembles (1)  
MUSC 373R | Advanced Small Ensembles (1)  

Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1400</td>
<td>Music Technology I</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 1402</td>
<td>Music Technology II</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 1410</td>
<td>Survey of Commercial Music Careers</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1810</td>
<td>Contemporary Theory and Improvisation I</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2190</td>
<td>Rhythm Section Workshop</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2210</td>
<td>Contemporary Theory and Improvisation II</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 2400</td>
<td>Digital Audio Workstation</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 2420</td>
<td>Music Production Basics</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 3026</td>
<td>Songwriting II</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 3031</td>
<td>Jazz and Contemporary Arranging II</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 3412</td>
<td>Music Career Development</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 379R</td>
<td>Studio Recording Workshop (Repeated 2 times)</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 470R</td>
<td>Studio Arranging and Producing (Repeated 2 times)</td>
<td>6</td>
</tr>
<tr>
<td>MUSC 481R</td>
<td>Internship in Music II</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 492R</td>
<td>Advanced Topics in Music (Repeated 2 times, 2 credits each)</td>
<td>4</td>
</tr>
<tr>
<td>MUSC 5025</td>
<td>Songwriting I</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 3030</td>
<td>Jazz and Contemporary Arranging I</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 4240</td>
<td>Vocal Pedagogy</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 3415</td>
<td>Instrumental Pedagogy and Literature I</td>
<td>2</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 121 semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above. MUSC 250R Private Lessons for Music Majors and MUSC 360R Commercial Music Private Lessons require a grade B or higher. All other MUSC courses require a C grade or higher.
3. Residency hours- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours in the last 45 hours.
4. Completion of GE and specified departmental requirements, including a sophomore review and concert attendance requirements.
5. Successful completion of at least one Global/Intercultural course.

Commercial Music, B.M.

Careers

1. Analyze the elements, forms, and processes in music.
2. Evaluate the elements, forms, and processes in music.
3. Describe the major historical periods, composers, styles, and genres of music.
4. Categorize the major historical periods, composers, styles, and genres of music.
5. Assess the major historical periods, composers, styles, and genres of music.
6. Develop musical judgements and self-assess their efforts.
7. Defend musical judgements.
8. Perform associated repertoire with technical proficiency and artistic expression on their instrument or voice.
9. Use collaboration skills in making music.
10. Apply music technology to various commercial music contexts.

**Related Careers**
- Art, Drama, and Music Teachers, Postsecondary
- Music Directors and Composers
- Sound Engineering Technicians

**Music Education, B.S.**

**Requirements**
The Bachelor of Science in Music Education degree provides students with the competencies essential for a professional career in music secondary education.

**Total Program Credits: 129**

**Matriculation Requirements:**

<table>
<thead>
<tr>
<th>For acceptance to the B.S. Music Education degree:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pass performance audition and interview with music faculty.</td>
</tr>
<tr>
<td>2. Complete music theory diagnostic exam. Students who do not earn at least 80% on the music department theory diagnostic exam must complete MUSC 1105 before MUSC 1110.</td>
</tr>
</tbody>
</table>

Students will apply for formal admission to the Secondary Ed program in the semester prior to the beginning of their junior year. Admission criteria include:

| 1. ENGL and MATH QL courses must have a grade C or higher. |
| 2. GPA of 3.0 or higher with no grade lower than a C in content area courses. |
| 3. Completion of all General Education requirements and 70% of content area courses. |
| 4. Pass LiveScan Criminal Background Check. |

**General Education Requirements:**

32 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one of the following: (Note: A higher level MATH course may substitute for this requirement)

3 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors)</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
</tbody>
</table>

Choose one of the following:

3 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete the following:

3 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
<td></td>
</tr>
</tbody>
</table>

**Distribution Courses:**

Biology 3

**Discipline Core Requirements:**

97 Credits

**Physical Science**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1750</td>
<td>The Acoustics of Music PP (3) (recommended)</td>
<td></td>
</tr>
</tbody>
</table>

**Additional Biology or Physical Science**

3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Social/Behavioral Science**

3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 1100</td>
<td>Human Development Life Span SS (3) (recommended)</td>
<td></td>
</tr>
</tbody>
</table>

**Prescribed Music Education Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1110</td>
<td>Music Theory I</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1115</td>
<td>Music Notation and Score Preparation</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1120</td>
<td>Music Theory II</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1130</td>
<td>Aural Skills I</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1140</td>
<td>Aural Skills II</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1390</td>
<td>Survey of Recording Techniques</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2110</td>
<td>Music Theory III</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2125</td>
<td>Music Theory IV</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2130</td>
<td>Aural Skills III</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2140</td>
<td>Aural Skills IV</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2350</td>
<td>Fundamentals of Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 349G</td>
<td>Global Musical Styles and Ideas</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 3450</td>
<td>Music History and Literature I WE</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 3451</td>
<td>Music History and Literature II WE</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 4130</td>
<td>Scoring and Arranging</td>
<td>2</td>
</tr>
</tbody>
</table>

**Complete one of these choral/instrumental tracks:**

13 Credits

**Choral students complete these 13 credits:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 2001</td>
<td>Diction for Singers I (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 2002</td>
<td>Diction for Singers II (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 3620</td>
<td>Percussion Techniques I (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 3630</td>
<td>Vocal Techniques (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 4240</td>
<td>Vocal Pedagogy (2)</td>
<td></td>
</tr>
<tr>
<td>MUSC 4150</td>
<td>Advanced Choral Conducting (2)</td>
<td></td>
</tr>
<tr>
<td>MUSC 4220</td>
<td>Choral Literature and Methods (2)</td>
<td></td>
</tr>
<tr>
<td>MUSC 4221</td>
<td>Advanced Choral Literature and Methods (2)</td>
<td></td>
</tr>
</tbody>
</table>

Complete 1 credit of MUSC courses not already required for the degree (1)

**Band students complete these 13 credits:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 3620</td>
<td>Percussion Techniques I (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 3630</td>
<td>Vocal Techniques (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 3649</td>
<td>String Techniques I (1)</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credit Hours</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>MUSC 3659</td>
<td>Woodwind Techniques I (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 3679</td>
<td>Brass Techniques I (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 3150</td>
<td>Advanced Instrumental Conducting (2)</td>
<td></td>
</tr>
<tr>
<td>MUSC 3690</td>
<td>Jazz Techniques (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 4340</td>
<td>Marching Band Techniques (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 4360</td>
<td>Instrumental Literature and Methods (2)</td>
<td></td>
</tr>
<tr>
<td>MUSC 4370</td>
<td>Advanced Instrumental Literature and Methods (2)</td>
<td></td>
</tr>
</tbody>
</table>

**Orchestra students complete 13 credits:**
- MUSC 3415 Instrumental Pedagogy and Literature I (2)
- MUSC 3620 Percussion Techniques I (1)
- MUSC 3630 Vocal Techniques (1)
- MUSC 3649 String Techniques I (1)
- MUSC 3679 Brass Techniques I (1)
- MUSC 3659 Woodwind Techniques I (1)
- MUSC 3150 Advanced Instrumental Conducting (2)
- MUSC 4360 Instrumental Literature and Methods (2)
- MUSC 4370 Advanced Instrumental Literature and Methods (2)

**Performance Skills Development Courses**
- MUSC 250R Private Lessons for Music Majors (1) (Repeated 4 times on major instrument or voice) (Includes completion of sophomore review) 4
- MUSC 251R Performance Class (1) (Repeated 4 times on major instrument or voice) (Includes completion of sophomore review) 4
- MUSC 450R Advanced Private Lessons for Music Majors (1) (Repeated 2 times on major instrument or voice) (Includes completion of 30-minute senior recital) 2
- MUSC 451R Performance Class (1) (Repeated 2 times) 2

Student must pass the Departmental Keyboard Proficiency Examination or complete MUSC 1150, MUSC 1160, MUSC 2150, and MUSC 2160

Complete 6 credits from the following (as assigned): 6
- MUSC 322R Chamber Choir (1)
- MUSC 327R Deep Green-Tenor/Bass Choir (1)
- MUSC 328R Emerald Singers-Soprano/Alto Choir (1)
- MUSC 330R Wind Symphony (1)
- MUSC 332R Jazz Orchestra (1)
- MUSC 370R Symphony Orchestra (1)

**Secondary Education Courses**
- EDEL 1010 Introduction to Education 2
- EDSC 3000 Educational Psychology 3
- EDSC 325G Equitable Technology Integration GI 2
- EDSP 340G Exceptional Students GI 2

**Graduation Requirements:**
1. Completion of a minimum of 129 semester credits.
2. Overall Grade of 3.0 (B) or above with no grade lower than a C or better in major required content courses and no grade lower than a B- in Licensure and Methods courses.
   a. MUSC 250R Private Lessons for Music Majors and MUSC 450R Advanced Private Lessons for Music Majors courses require a grade B or higher.
   b. MUSC 4220 Choral Literature and Methods, MUSC 4221 Advanced Choral Literature and Methods, MUSC 4360 Instrumental Literature and Methods, and MUSC 4370 Advanced Instrumental Literature and Methods require a grade B- or higher.
3. Residency hours: minimum of 34 credit hours through course attendance at UVU, with at least 10 hours in the last 45 hours.
4. Completion of GE and specified departmental requirements, including a sophomore review, 30-minute senior recital, and concert attendance requirements.
5. Successful completion of at least one Global/Intercultural course.

**Music Education, B.S. Careers**
1. Performance: Students will perform music on a primary instrument or voice from a broad historical and stylistic range of solo and ensemble repertoire with technique, accuracy, expressivity, stage presence, and creativity
2. Aural and Visual Analysis: Students will identify musical elements and organizational patterns through aural and visual analysis
3. Music History: Students will demonstrate the application of knowledge related to the history of music, including various time periods, historical figures, styles and genres in Western and non-Western musical traditions.
4. Keyboard Skills: Students will demonstrate proficiency in keyboard techniques and fingerings through the performance of scales, sight-reading, prepared musical pieces, harmonization, and improvisation.
5. Scoring and Arranging: Students will create coherent and artistic arrangements for instrumental and/or vocal ensembles using industry standard music notation software.
6. Literature, Methods, and Teaching: Students will demonstrate an understanding of literature, methodology, and administration of a school choral or instrumental program. Students will demonstrate proficiency in teaching skills including classroom management, rehearsal techniques, creating assessments for instruction to various ages and skill levels, and the ability to diagnose and correct musical and technical faults.
7. Conducting: Students will demonstrate clarity and expressivity in conducting gesture (with and without baton), proficiency in score reading, and communicating musical ideas to an ensemble.

**Related Careers**
- Education Teachers, Postsecondary
- Art, Drama, and Music Teachers, Postsecondary
- Middle School Teachers, Except Special and Career/Technical Education
- Secondary School Teachers, Except Special and Career/Technical Education
Music

Music, B.A.

Requirements

The Bachelor of Arts/Science in Music is a liberal arts degree with a significant component of electives designed for students who desire a broad base of knowledge. The Bachelor of Arts in Music includes foreign language requirements.

Total Program Credits: 120

Matriculation Requirements:

1. Pass performance audition and interview with music faculty.
2. Complete music theory diagnostic exam. Students who do not earn at least 80% on the music department theory diagnostic exam must complete MUSC 1105 and MUSC 1110.

General Education Requirements: 33 Credits

| ENGL 1010 | Introduction to Academic Writing CC | 3 |
| or ENGH 1005 | Literacies and Composition Across Contexts CC (5) |  |
| ENGL 2010 | Intermediate Academic Writing CC | 3 |

Choose one of the following: (A higher level MATH course may substitute for this requirement.)

| MAT 1030 | Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors) |  |
| MAT 1035 | Quantitative Reasoning with Integrated Algebra QL (6) |  |

Choose one of the following:

| POLS 1000 | American Heritage SS (3) |
| HIST 2700 | US History to 1877 AS (3) |
| and HIST 2710 | US History since 1877 AS (3) |
| HIST 1700 | American Civilization AS (3) |
| HIST 1740 | US Economic History AS (3) |
| POLS 1100 | American National Government AS (3) |

Complete the following:

| PHIL 2050 | Ethics and Values IH | 3 |
| HLTH 1100 | Personal Health and Wellness TE (2) |  |
| or EXSC 1097 | Fitness for Life TE | 2 |

Distribution Courses:

| Biology | 3 |
| Physical Science | 3 |
| PHYS 1750 | The Acoustics of Music PP (3) (recommended) |  |
| Additional Biology or Physical Science | 3 |
| Humanities Distribution (Fulfilled by completing Foreign Language Course 202G/2020) | 4 |
| Social/Behavioral Science | 3 |

Discipline Core Requirements: 59 Credits

| MUSC 1110 | Music Theory I | 3 |
| MUSC 1115 | Music Notation and Score Preparation | 1 |
| MUSC 1120 | Music Theory II | 3 |
| MUSC 1130 | Aural Skills I | 1 |

Individual Musicianship Studies:

| MUSC 250R | Private Lessons for Music Majors (Repeated 4 times on major instrument or voice) (Includes completion of sophomore review) | 4 |
| MUSC 251R | Performance Class (Repeated 4 times on major instrument or voice) (Includes completion of sophomore review) | 4 |
| MUSC 450R | Private Lessons for Music Majors (Repeated 4 times on major instrument or voice) | 4 |
| MUSC 451R | Performance Class (Repeated 4 times on major instrument or voice) | 4 |

Student must pass the Departmental Keyboard Proficiency Examination or complete MUSC 1150, MUSC 1160, MUSC 2150, and MUSC 2160

Ensembles

Complete 8 credits from the following: 8

| MUSC 322R | Chamber Choir (1) |
| MUSC 327R | Deep Green - Tenor/Bass Choir (1) |
| MUSC 328R | Emerald Singers-Soprano/Alto Choir (1) |
| MUSC 330R | Wind Symphony (1) |
| MUSC 332R | Jazz Orchestra (1) |
| MUSC 370R | Symphony Orchestra (1) |

Elective Requirements: 28 Credits

| One Foreign Language | 12 |

Complete any courses 1000 level or higher (may not include MUSC courses) (at least 9 credits must be upper-division, see graduation requirements) 16

Graduation Requirements:

1. Completion of a minimum of 120 semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above. MUSC 250R Private Lessons for Music Majors and MUSC 450R Advanced Private Lessons for Music Majors require a grade B or higher. All other MUSC courses require a C grade or higher.
3. Residency hours- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours in the last 45 hours.
4. Completion of GE and specified departmental requirements, including a sophomore review and concert attendance requirements.
Music, B.A.

Careers

1. Analyze the elements, forms, and processes in music.
2. Evaluate the elements, forms, and processes in music.
3. Describe the major historical periods, composers, styles, and genres of music.
4. Categorize the major historical periods, composers, styles, and genres of music.
5. Assess the major historical periods, composers, styles, and genres of music.
6. Develop musical judgements and self-assess their efforts.
7. Defend musical judgements.
8. Perform associated repertoire with technical proficiency and artistic expression on their instrument or voice.
9. Use collaboration skills in making music.

Related Careers

- Secondary School Teachers, Except Special and Career/Technical Education
- Musicians and Singers

Music, B.S.

Requirements

The Bachelor of Arts/Science in Music is a liberal arts degree with a significant component of electives designed for students who desire a broad base of knowledge. The Bachelor of Arts in Music includes foreign language requirements.

Total Program Credits: 120

Matriculation Requirements:

1. Pass performance audition and interview with music faculty.
2. Complete music theory diagnostic exam. Students who do not earn at least 80% on the music department theory diagnostic exam must complete MUSC 1105 before MUSC 1110.

General Education Requirements: 32 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one of the following: (Note: A higher level MATH course may substitute for the requirement.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (recommended for Humanities or Arts majors)</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
</tbody>
</table>

Choose one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
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</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
<td>2</td>
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Distribution Courses:

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<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Biology</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1750</td>
<td>The Acoustics of Music PP (recommended)</td>
<td></td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td></td>
<td>3</td>
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<tr>
<td>Humanities Distribution</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
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<td>3</td>
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</table>

Discipline Core Requirements: 59 Credits

Musicianship Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1110</td>
<td>Music Theory I</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1115</td>
<td>Music Notation and Score Preparation</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1120</td>
<td>Music Theory II</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 1130</td>
<td>Aural Skills I</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1140</td>
<td>Aural Skills II</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1390</td>
<td>Survey of Recording Techniques</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2110</td>
<td>Music Theory III</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2125</td>
<td>Music Theory IV</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2130</td>
<td>Aural Skills III</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2140</td>
<td>Aural Skills IV</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 349G</td>
<td>Global Musical Styles and Ideas GI</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 3450</td>
<td>Music History and Literature I WE</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 3451</td>
<td>Music History and Literature II WE</td>
<td>3</td>
</tr>
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</table>

Complete 8 credits of MUSC courses not already required for the degree (at least 3 credits must be upper-division)

8 Credits

Individual Musicianship Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 250R</td>
<td>Private Lessons for Music Majors (Repeated 4 times on major instrument or voice) (Includes completion of sophomore review)</td>
<td>4</td>
</tr>
<tr>
<td>MUSC 251R</td>
<td>Performance Class (Repeated 4 times on major instrument or voice) (Includes completion of sophomore review)</td>
<td>4</td>
</tr>
<tr>
<td>MUSC 450R</td>
<td>Private Lessons for Music Majors (Repeated 4 times on major instrument or voice)</td>
<td>4</td>
</tr>
<tr>
<td>MUSC 451R</td>
<td>Performance Class (Repeated 4 times on major instrument or voice)</td>
<td>4</td>
</tr>
</tbody>
</table>

Student must pass the Departmental Keyboard Proficiency Examination or complete MUSC 1150, MUSC 1160, MUSC 2150, and MUSC 2160

Ensembles

Complete 8 credits from the following:

8 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 322R</td>
<td>Chamber Choir (1)</td>
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</tbody>
</table>
### Music

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
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<tr>
<td>MUSC 327R</td>
<td>Deep Green-Tenor/Bass Choir (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 328R</td>
<td>Emerald Singers-Soprano/Alto Choir (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 330R</td>
<td>Wind Symphony (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 332R</td>
<td>Jazz Orchestra (1)</td>
<td></td>
</tr>
<tr>
<td>MUSC 370R</td>
<td>Symphony Orchestra (1)</td>
<td></td>
</tr>
</tbody>
</table>

**Elective Requirements:** 29 Credits
- Complete any courses 1000 level or higher (may not include MUSC courses) (at least 9 credits must be upper-division, see graduation requirements)

### Graduation Requirements:

1. Completion of a minimum of 120 semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above. MUSC 250R Private Lessons for Music Majors and MUSC 450R Advanced Private Lessons for Music Majors courses require a grade B or higher. All other MUSC courses require a C grade or higher.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours in the last 45 hours.
4. Completion of GE and specified departmental requirements, including a sophomore review and concert attendance requirements.
5. Successful completion of at least one Global/Intercultural course.

### Music, B.S.

#### Careers

1. Performance: Students will perform music on a primary instrument or voice from a broad historical and stylistic range of solo and ensemble repertoire with technique, accuracy, expressivity, stage presence, and creativity
2. Aural and Visual Analysis: Students will identify musical elements and organizational patterns through aural and visual analysis
3. Music History: Students will demonstrate the application of knowledge related to the history of music, including various time periods, historical figures, styles and genres in Western and non-Western musical traditions.
4. Keyboard Skills: Students will demonstrate proficiency in keyboard techniques and fingerings through the performance of scales, sight-reading, prepared musical pieces, harmonization, and improvisation.

#### Related Careers
- Secondary School Teachers, Except Special and Career/Technical Education
- Musicians and Singers

### Performance, B.M.

#### Requirements

The Bachelor of Music in Performance degree prepares students for performance-related work and studio teaching. In addition to standard courses that focus on performance skills, it includes courses relevant to the music industry such as entrepreneurship, music technology, and studio recording.

**Total Program Credits: 120**

#### Matriculation Requirements

1. Pass performance audition and interview with music faculty.
2. Complete music theory diagnostic exam. Students who do not earn at least 80% on the music department theory diagnostic exam must complete MUSC 1105 before MUSC 1110.

### General Education Requirements:

<table>
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<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
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<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Context CC (5)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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</tr>
</tbody>
</table>

Choose one of the following: (Note: A higher level MATH course may substitute for this requirement) 3 Credits

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<tbody>
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<td>or MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
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Choose one of the following: 3 Credits

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<tr>
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<tbody>
<tr>
<td>POLS 1000</td>
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<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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Complete the following

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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
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<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
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#### Distribution Courses:

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<tr>
<th>Category</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>PHYS 1750</td>
<td>The Acoustics of Music PP (3)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(recommended)</td>
<td></td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities Distribution</td>
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<td></td>
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<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
<td></td>
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#### Discipline Core Requirements:

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>Musicianships Courses</td>
<td>88 Credits</td>
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<tr>
<td>MUSC 1110</td>
<td>Music Theory I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>or MUSC 1390</td>
<td>Survey of Recording Techniques</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MUSC 1120</td>
<td>Music Theory II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>or MUSC 349G</td>
<td>Global Musical Styles and Ideas GI</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MUSC 1130</td>
<td>Aural Skills I</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>or MUSC 3450</td>
<td>Music History and Literature I WE</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MUSC 1140</td>
<td>Aural Skills II</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>or MUSC 3451</td>
<td>Music History and Literature II WE</td>
<td>3</td>
<td></td>
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<tr>
<td>MUSC 2110</td>
<td>Music Theory III</td>
<td>3</td>
<td></td>
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<tr>
<td>or MUSC 1115</td>
<td>Music Notation and Score Preparation</td>
<td>1</td>
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<tr>
<td>MUSC 2125</td>
<td>Music Theory IV</td>
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<td>or MUSC 1390</td>
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<tr>
<td>MUSC 2130</td>
<td>Aural Skills III</td>
<td>1</td>
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<tr>
<td>or MUSC 1115</td>
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<td>1</td>
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<td>MUSC 2140</td>
<td>Aural Skills IV</td>
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<td>MUSC 2350</td>
<td>Fundamentals of Conducting</td>
<td>2</td>
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</tr>
<tr>
<td>MUSC 349G</td>
<td>Global Musical Styles and Ideas GI</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>or MUSC 3450</td>
<td>Music History and Literature I WE</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MUSC 3451</td>
<td>Music History and Literature II WE</td>
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#### Music Industry and Technology

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>MUSC 1115</td>
<td>Music Notation and Score Preparation</td>
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428 Course Catalog 2023-2024 Utah Valley University
Choose two credits from the following:

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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MUSC 1402</td>
<td>Music Technology II</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 1810</td>
<td>Contemporary Theory and Improvisation I</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 2400</td>
<td>Digital Audio Workstation</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 2420</td>
<td>Music Production Basics</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 3025</td>
<td>Songwriting I</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 379R</td>
<td>Studio Recording Workshop</td>
<td>1</td>
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<tr>
<td>MUSC 470R</td>
<td>Studio Arranging and Producing</td>
<td>3</td>
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</table>

Individual Musicianship Studies:

- **MUSC 250R** Private Lessons for Music Majors (Repeated 4 times on major instrument or voice) (Includes completion of sophomore review) **4**
- **MUSC 251R** Performance Class (Repeated 4 times on major instrument or voice) (Includes completion of sophomore review) **4**
- **MUSC 455R** Private Lessons for Music Performance Majors (Repeated 4 times on major instrument or voice) **8**
- **MUSC 451R** Performance Class (Repeated 4 times on major instrument or voice) **4**
- **MUSC 3800** Junior Recital **1**
- **MUSC 4800** Senior Recital **1**

Student must pass the Departmental Keyboard Proficiency Examination or complete MUSC 1150, MUSC 1160, MUSC 2150, and MUSC 2160

Large Ensembles:

- **MUSC 322R** Chamber Choir (1)
- **MUSC 327R** Deep Green - Tenor/Bass Choir (1)
- **MUSC 328R** Emerald Singers-Soprano/Alto Choir (1)
- **MUSC 330R** Wind Symphony (1)
- **MUSC 332R** Jazz Orchestra (1)
- **MUSC 370R** Symphony Orchestra (1)

Choose from one of the following performance areas: **24**

**Instrumental Performance/Piano Performance**

- **MUSC 306R** Advanced Keyboard Skills (1) (For Piano Performance area only) (Repeated 4 times)
- **MUSC 3415** Instrumental Pedagogy and Literature I (2)
- **MUSC 3416** Instrumental Pedagogy and Literature II (2)
- **MUSC 373R** Advanced Small Ensembles (1) (Repeated 4 times)

12 credits of music electives for Piano Performance area and 16 credits of music electives for Instrumental Performance area.

**Vocal Performance**

- **MUSC 2001** Diction for Singers I (1)
- **MUSC 2002** Diction for Singers II (1)
- **MUSC 3005** Vocal Literature I (1)
- **MUSC 3006** Vocal Literature II (1)
- **MUSC 423R** Opera Workshop (1) (Repeated 4 times)
- **MUSC 4240** Vocal Pedagogy (2)
- **FREN 1010** Beginning French I LH (4)
- **GER 1010** Beginning German I LH (4)
- **FREN 1020** Beginning French II LH (4)
- **GER 1020** Beginning German II LH (4)

2 credits of music electives for Vocal Performance

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits, 40 credits must be upper-division.
2. Overall grade point average of 2.0 (C) or above. MUSC 250R Private Lessons for Music Majors and MUSC 455R Private Lessons for Music Performance Majors require a grade B or higher. All other MUSC courses require a C grade or higher.
3. Residency hours- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours in the last 45 hours.
4. Completion of GE and specified departmental requirements, including a sophomore review and concert attendance requirements.
5. Successful completion of at least one Global/Intercultural course.

**Performance, B.M. Careers**

1. Analyze the elements, forms, and processes in music.
2. Evaluate the elements, forms, and processes in music.
3. Describe the major historical periods, composers, styles, and genres of music.
4. Categorize the major historical periods, composers, styles, and genres of music.
5. Assess the major historical periods, composers, styles, and genres of music.
6. Develop musical judgements and self-assess their efforts.
7. Defend musical judgements.
8. Perform associated repertoire with technical proficiency and artistic expression on their instrument or voice.
9. Use collaboration skills in making music.
10. Apply pedagogical skills in their area by appropriately critiquing student work and designing an applicable learning strategy.
11. Perform on their instrument or voice in an exemplary manner that demonstrates a high level of achievement and career potential.

**Related Careers**

- Art, Drama, and Music Teachers, Postsecondary
- Music Directors and Composers
- Musicians and Singers
Nursing

The Nursing department is in the College of Health and Public Services. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Nursing department, visit their website.

Nursing department

DEPARTMENT CHAIR
MAUGHAN, Dale Associate Professor

FACULTY
BAGLEY, Katie Associate Professor
BENNERT, Sean Associate Professor
BRUNGER, Candice Assistant Professor
CHEN, Hsli-Chin Professor
COLE, Joy Associate Professor
CRAVEN, Marnie Associate Professor
DUNN, Stephanie Assistant Professor
ENSIGN, Allison Assistant Professor
GAUL, Raiden Assistant Professor
HANSEN, Halle Assistant Professor
HIGBEE, Mykin Assistant Professor
JENSEN, Francine B. Assistant Professor
JOHNSON, Jill Assistant Professor
KLEINMAN, Phillip Assistant Professor
MAUGHAN, Dale Associate Professor
MCADAMS-JONES, Dianne Professor
MEASOM, Gary Professor
MONSON, Natalie Assistant Professor
MUELLER, Katherine D. Associate Professor
NELSON, Troy Associate Professor
NICHOLS, Nyree-Dawn Associate Professor
RUSSELL, Jamie Assistant Professor
SEAGROVE-NELSON, Frey Assistant Professor
SWENSON, Allison Associate Professor
TAYLOR, Noelle Assistant Professor
WAYMAN, Mina Associate Professor

Course Descriptions

Nursing

Degrees & Programs

Nursing, ASN

Requirements

The UVU Nursing Program is a student-centered engaged learning experience where faculty facilitates learning nursing care through simulation and patient care. The Associate in Science in Nursing (ASN) program prepares the graduate to function individually as a member of the healthcare team in structured healthcare settings in which clients have common health problems. Acceptance into the ASN program is by a competitive, point-based application process. Prerequisite courses must be completed before applying to the program. For more information on applying to the ASN program see our website at www.uvu.edu/nursing or contact the Pre-Nursing advisors in LC 404 at 863-6484. After completing the 4 semesters of the ASN program, students would be eligible to graduate with an ASN and apply to take the NCLEX-RN exam. Graduates of the ASN program would be eligible to remain in the program, and seamlessly transition to the Bachelor of Science in Nursing (BSN) portion of the program. BSN completion takes an additional 2 full time semesters if students have also completed all the GE requirements, ZOOL 4400, and MATH 1040 or MATH 2040.

Total Program Credits: 71

Matriculation Requirements:

1. Acceptance into Nursing program (see Advisor for current prerequisite requirements)

General Education Requirements: 23 Credits

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
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Complete the following: 3

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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MAT 1030 Quantitative Reasoning QL</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL</td>
<td>6</td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL</td>
<td>3</td>
</tr>
<tr>
<td>STAT 1045 Introduction to Statistics with Algebra QL</td>
<td>5</td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1055 College Algebra with Preliminaries QL</td>
<td>5</td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUTR 1020 Foundations of Human Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>PSY 1100 Human Development Life Span SS</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1610 College Biology I BB</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1110 Elementary Chemistry for the Health Sciences PP</td>
<td>4</td>
</tr>
</tbody>
</table>

Discipline Core Requirements: 48 Credits

Complete the following with a minimum B- or higher:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICR 2060 Microbiology for Health Professions BB</td>
<td>3</td>
</tr>
<tr>
<td>MICR 2065 Microbiology for Health Professions Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ZOOL 2320 Human Anatomy BB</td>
<td>3</td>
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<tr>
<td>ZOOL 2325 Human Anatomy Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ZOOL 2420 Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>ZOOL 2425 Human Physiology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>NURS 3330 Nursing Care of Individuals with Complex Health Needs</td>
<td>2</td>
</tr>
<tr>
<td>NURS 3400 Patient Care Coordination and Management</td>
<td>1</td>
</tr>
<tr>
<td>NURS 3405 Patient Care Coordination and Management Preceptorship</td>
<td>2</td>
</tr>
<tr>
<td>NURS 3440 Pharmacology for the Practicing Nurse</td>
<td>2</td>
</tr>
<tr>
<td>NURS 3445 Nursing Practice Simulation and Skills Lab IV</td>
<td>1</td>
</tr>
</tbody>
</table>
Graduation Requirements:
1. Completion of a minimum of 71 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.
4. Completion of specified departmental requirements

Nursing, ASN Careers
1. Implement skills to meet the individualized needs of patients in healthcare settings.
2. Use established evidence-based nursing protocols in providing nursing care for patients.
3. Use sound judgment and critical reflection of clinical data to prioritize nursing care.
4. Demonstrate professional attributes including commitment to high ethical standards, continuing education and the ability to collaborate with health care teams.
5. Apply standards of quality and safety in clinical practice.
6. Evaluate the effectiveness of nursing care and teaching plans in promoting safety for patients.
7. Integrate and evaluate personal responsibility and accountability in all aspects of nursing practice.

Related Careers
- Nursing Instructors and Teachers, Postsecondary
- Registered Nurses

Nursing, B.S. Requirements
A bachelor of science in nursing degree prepares students to practice across all types of health care settings. A BSN provides the greatest opportunity for advancement in the nursing field. A BSN is also required for entry into most graduate nursing programs including nurse practitioner, certified nurse anesthetist, nursing educator, or nurse researcher. Students interested in the BSN would first need to complete the ASN program. Acceptance into the ASN program is by a competitive, point-based application process. Prerequisite courses must be completed before applying to the program. For more information on applying to the ASN program see ou website at www.uvu.edu/nursing or contact the Pre-Nursing advisors in LC 404 at 863-6484. After completing the 4 semesters of the ASN program, students would be eligible to graduate with an ASN and apply to take the NCLEX-RN exam. Graduates of the ASN program would be eligible to remain in the program, and seamlessly transition to the Bachelor of Science in Nursing (BSN) portion of the program. The BSN at UVU is a completion program and students who are not entering directly from the UVU ASN program must be licensed RNs prior to admission. For more information on entering the program if you are already an RN see the RN to BSN program at www.uvu.edu/nursing.

Total Program Credits: 121

Matriculation Requirements:
1. Associate of Science in Nursing
2. RN licensure complete. Prerequisite coursework:
   a. ENGL 1010 Introduction to Writing or ENGH 1005 Literacies & Composition Across Contexts
   b. Math Quantitative Literacy Course
   c. PSY 1100 Human Development/Life Span
   d. CHEM 1110 Elementary Chemistry
   e. NUTR 1020 Foundations of Human Nutrition
   f. ZOOL 2320 Human Anatomy w/lab
   g. MICR 2060 Microbiology w/lab
   h. ZOOL 2420 Human Physiology w/lab.
3. All prerequisite courses must be completed prior to application. A final grade of C or higher is necessary in all classes except Math Quantitative Literacy
4. Course work must be on an official transcript and articulation into the UVU system by the end of the application period or the application will be considered incomplete
5. Pass/Fail or Credit/No credit grades and ACT scores are not accepted for prerequisite course work. (see Advisor for details)
6. Each application for acceptance into the program is for a specific semester only

General Education Requirements: 36 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
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<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (3)</td>
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</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
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</tr>
</tbody>
</table>

Nursing, ASN

Direct RN Path:
- NURS 2300 Nursing Health Assessment 1
- NURS 2305 Nursing Health Assessment Laboratory 1
- NURS 2310 Nursing Pharmacology 3
- NURS 2320 Fundamentals of Nursing Care 2
- NURS 2325 Nursing Practice Simulation and Skills Lab I 2
- NURS 2410 Nursing Care of Adults with Common Health Needs 3
- NURS 2415 Nursing Care of Adults with Common Health Needs Clinical 2
- NURS 2420 Nursing Care of the Aging Population 2
- NURS 2430 Mental Health Nursing 2
- NURS 2435 Mental Health Nursing Clinical 1
- NURS 3335 Nursing Care of Individuals with Complex Health Needs Clinical 2
- NURS 3340 Nursing Care of Women, Children, and Developing Families 3
- NURS 3345 Nursing Care of Women, Children, and Developing Families Clinical 1
- NURS 2445 Nursing Practice Simulation and Skills Lab II 1
- NURS 3355 Nursing Practice Simulation and Skills Lab III 1

LPN Track—For students with LPN licence:
- Students must bring in an LPN certificate
- NURS 2210 Practical Nurse to Registered Nurse 1
- NURS 3365 LPN Simulation/Skills Lab and Clinical Experience 5
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
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<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
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<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td>3</td>
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<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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<tr>
<td>HIST 2710</td>
<td>US History since 1877 AS (3)</td>
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<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td></td>
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<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1610</td>
<td>College Biology I BB</td>
<td>4</td>
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<tr>
<td>CHEM 1110</td>
<td>Elementary Chemistry for the Health Sciences PP</td>
<td>4</td>
</tr>
<tr>
<td>PSY 1100</td>
<td>Human Development Life Span SS</td>
<td>3</td>
</tr>
<tr>
<td>ZOOL 2320</td>
<td>Human Anatomy BB</td>
<td>3</td>
</tr>
<tr>
<td>ZOOL 2325</td>
<td>Human Anatomy Laboratory</td>
<td>1</td>
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<td>NURS 2300</td>
<td>Nursing Health Assessment</td>
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<tr>
<td>NURS 2305</td>
<td>Nursing Health Assessment Laboratory</td>
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<tr>
<td>NURS 2310</td>
<td>Nursing Pharmacology</td>
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</tr>
<tr>
<td>NURS 2320</td>
<td>Fundamentals of Nursing Care</td>
<td>2</td>
</tr>
<tr>
<td>NURS 2325</td>
<td>Nursing Practice Simulation and Skills Lab I</td>
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<tr>
<td>NURS 2415</td>
<td>Nursing Care of Adults with Common Health Needs Clinical</td>
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<tr>
<td>NURS 2420</td>
<td>Nursing Care of the Aging Population</td>
<td>2</td>
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<td>NURS 2430</td>
<td>Mental Health Nursing</td>
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<td>NURS 2435</td>
<td>Mental Health Nursing Clinical</td>
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<tr>
<td>NURS 2445</td>
<td>Nursing Practice Simulation and Skills Lab II</td>
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<tr>
<td>NURS 3330</td>
<td>Nursing Care of Individuals with Complex Health Needs</td>
<td>2</td>
</tr>
<tr>
<td>NURS 3335</td>
<td>Nursing Care of Individuals with Complex Health Needs Clinical</td>
<td>2</td>
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<tr>
<td>NURS 3340</td>
<td>Nursing Care of Women Children and Developing Families</td>
<td>3</td>
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<tr>
<td>NURS 3345</td>
<td>Nursing Care of Women Children and Developing Families Clinical</td>
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</tr>
<tr>
<td>NURS 3355</td>
<td>Nursing Practice Simulation and Skills Lab III</td>
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<td>NURS 3400</td>
<td>Patient Care Coordination and Management</td>
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<tr>
<td>NURS 3405</td>
<td>Patient Care Coordination and Management Preceptorship</td>
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<tr>
<td>NURS 3440</td>
<td>Pharmacology for the Practicing Nurse</td>
<td>2</td>
</tr>
<tr>
<td>NURS 3445</td>
<td>Nursing Practice Simulation and Skills Lab IV</td>
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</tr>
<tr>
<td>NURS 4320</td>
<td>Nursing in the Community</td>
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</tr>
<tr>
<td>NURS 4325</td>
<td>Nursing in the Community Clinical</td>
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<tr>
<td>NURS 4340</td>
<td>Genomics in Nursing and Health</td>
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<td>NURS 4500</td>
<td>Nursing Leadership</td>
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<td>NURS 4510</td>
<td>Clinical Assessment and Reasoning</td>
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<tr>
<td>NURS 4540</td>
<td>Research and Theory in Nursing Practice WE</td>
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<tr>
<td>NURS 4550</td>
<td>Quality and Safety in Nursing WE</td>
<td>3</td>
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<tr>
<td>MICR 2060</td>
<td>Microbiology for Health Professions BB</td>
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<td>MICR 2065</td>
<td>Microbiology for Health Professions Laboratory</td>
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<tr>
<td>NUTR 1020</td>
<td>Foundations of Human Nutrition</td>
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<tr>
<td>ZOOL 2420</td>
<td>Human Physiology</td>
<td>3</td>
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<td>ZOOL 2425</td>
<td>Human Physiology Laboratory</td>
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<tr>
<td>ZOOL 4400</td>
<td>Pathophysiology</td>
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<tr>
<td>MGMT 2340</td>
<td>Business Statistics I (3)</td>
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<td>PSY 3110</td>
<td>Statistics for the Behavioral Sciences (4)</td>
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<td>STAT 1040</td>
<td>Introduction to Statistics QL (3)</td>
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<tr>
<td>STAT 1040</td>
<td>and STAT 1045 can be used only if not used for GE.</td>
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<tr>
<td>University-level statistics course</td>
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<tr>
<td>NURS 3345</td>
<td>Nursing Care of Women Children and Developing Families</td>
<td>3</td>
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<tr>
<td>NURS 3355</td>
<td>Nursing Practice Simulation and Skills Lab III</td>
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<tr>
<td>NURS 3400</td>
<td>Patient Care Coordination and Management</td>
<td>1</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 121 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Completion of GE and specified departmental requirements.
4. Residency hours—minimum of 30 credit hours through course attendance at UVU.
5. Successful completion of at least one Global/Intercultural course.

**Nursing, B.S. Careers**

1. Integrate knowledge and clinical expertise to help patients achieve optimal health outcomes.
2. Use clinical judgment, critical reflection, and technology to plan, implement, and evaluate theory- and evidence-based nursing practice.
3. Demonstrate team-building and collaboration strategies in health systems, guided by nursing values and standards.
4. Establish and maintain a culture of safety in a variety of health care settings by applying standards, theories, and quality improvement.

**Related Careers**

- Nursing Instructors and Teachers, Postsecondary
- Registered Nurses
Nursing Graduate Programs
Nursing Graduate Program
The Master of Science in Nursing Graduate Program is in the College of Health and Public Service. To find the most up-to-date information, including Program Learning Outcomes for the Nursing Graduate Program, visit their website.

Master of Science in Nursing Graduate Program

FACULTY
CHEN, Hsiu-Chin Professor
CRAVEN, Marianne Professor
MAUGAN, Dale Associate Professor
MCADAMS-JONES, Dianne Professor
MEASOM, Gary Professor

Course Descriptions
Nursing..............................................................792

Degrees & Programs
Nursing, M.S.N

Requirements
The Master of Science in Nursing program prepares post-baccalaureate nursing students for advanced practice roles as nurse educators in academic settings and/or clinical nurse educators in healthcare institutions. The program includes core courses essential to master-level nursing programs as well as courses designed to prepare nurses to assume roles as academic nurse educators and/or clinical nurse educators. Program content focuses on theoretical foundations of nursing education and leadership; tests and measurements of learning outcomes; curriculum development, implementation and evaluation; and academic and clinical teaching. Program courses provide skills and strategies for facilitation of learning in a variety of settings.

Total Program Credits: 34

Matriculation Requirements:
1. Baccalaureate degree in nursing from a program accredited by a recognized nursing accreditation agency.
2. Current licensure as an RN in Utah or eligible for RN licensure in Utah.
3. Completion of an undergraduate course in statistics to include descriptive and inferential statistics.
4. Application for admission to the MSN program.
5. Overall undergraduate GPA of 3.2 or higher, or GPA of 3.2 or higher in last 60 semester hours of undergraduate coursework.
6. Three professional letters of recommendation.

Discipline Core Requirements: 34 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 6000</td>
<td>Leadership Development</td>
<td>2</td>
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<tr>
<td>NURS 6050</td>
<td>Nursing Informatics</td>
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</tr>
<tr>
<td>NURS 6200</td>
<td>Advanced Nursing Theory</td>
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</tr>
<tr>
<td>NURS 6250</td>
<td>Advanced Nursing Research</td>
<td>3</td>
</tr>
<tr>
<td>NURS 6300</td>
<td>Advanced Nursing in Health Systems and Policy</td>
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</tr>
<tr>
<td>NURS 6350</td>
<td>Patho/Pharmacology for the Nurse Educator</td>
<td>3</td>
</tr>
<tr>
<td>NURS 6450</td>
<td>Health Assessment for the Nurse Educator</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Complete all discipline core courses with no grade lower than a B
2. Project or thesis completed and accepted by Department of Nursing Graduate Committee

Nursing, M.S.N
Careers

1. Facilitate the development, implementation and evaluation of health policy and health care delivery.
2. Critically evaluate research and evidence applying standards of reliability and validity.
3. Apply research and evidence with appropriate discrimination and discernment.
4. Gather, evaluate, and utilize evidence for the improvement of patient outcomes.
5. Function as a leader in the professional healthcare team.
6. Develop and implement programs to achieve educational outcomes based on learners’ needs.
7. Create products that advance the science of nursing at the point of care in health care delivery, nursing education, or safety and quality practices.

Related Careers
- Nursing Instructors and Teachers, Postsecondary
- Registered Nurses
Organizational Leadership
Organizational Leadership

The Organizational Leadership department is in the Woodbury School of Business. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Organizational Leadership department, visit their website.

Organizational Leadership department

DEPARTMENT CHAIR
WESTOVER, Jonathan Associate Professor

FACULTY
ANDRAKE, Maureen Professor
BROWN, Marc Nathaniel Professional in Residence
CHAPMAN, Jared Associate Professor
CUNNINGHAM, Ruthann Assistant Professor
HARVEY, Jaron Assistant Professor
HUO, Yang Hwae Associate Professor
JOHNSON, Russ Professional In Residence
MILLER, Douglas Professor
MOON, Matthew Lecturer
PETERSON, Jeffrey Associate Professor
SCHILL, Angela Lecturer
WESTOVER, Jonathan Associate Professor

Course Descriptions

Hospitality Management.......................................................... 731
Human Resource Management................................................. 735
Legal Studies.............................................................................. 757
Paralegal Studies........................................................................ 820

Degrees & Programs

Hospitality Management, A.A.S.

Requirements

The Hospitality Management program in the Woodbury School of Business offers a Bachelor of Science degree in Hospitality Management (as well as supporting a Bachelor of Science degree in Business Management, with an Emphasis in Hospitality Management – listed elsewhere). Associate in Science and Associate in Applied Science degrees are also offered.

Total Program Credits: 63

<table>
<thead>
<tr>
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<tbody>
<tr>
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</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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<tr>
<td>or ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or MATHEMATICS (Any math class MAT 1010 or higher)</td>
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</tr>
<tr>
<td>or HUMANITIES/FINE ARTS/FOREIGN LANGUAGE</td>
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</tr>
<tr>
<td>Ethics and Values ^1</td>
<td>3</td>
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</tbody>
</table>

or Any approved Humanities, Fine Arts, or Foreign Language Distribution Course

SOCIAL BEHAVIORAL SCIENCE

ECON 1010 Economics as a Social Science 3

or ECON 2010 Principles of Economics I

BIOLOGY OR PHYSICAL SCIENCE

Any approved Biology or Physical Science Distribution Course 3

PHYSICAL EDUCATION/HEALTH/SAFETY OR ENVIRONMENT:

Any approved Physical Education, Health, Safety or Environment Course 2

Discipline Core Requirements: 25 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CA 1000 Culinary Basics</td>
<td>3</td>
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<tr>
<td>HM 1010 Introduction to Hospitality Industry</td>
<td>3</td>
</tr>
<tr>
<td>HM 1180 Food and Beverage Management</td>
<td>3</td>
</tr>
<tr>
<td>HM 281R Cooperative Work Experience</td>
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</tr>
<tr>
<td>MKTG 2390 Professional Business Presentations</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2110 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>IM 2600 Spreadsheet Applications ^2</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 220G Written Business Communication GI WE</td>
<td>3</td>
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</table>

Elective Requirements: 18 Credits

Complete 18 hours of Electives numbered 1000 or higher 18

Notes:

1. PHIL 2050 Ethics and Values IH recommended.
2. Grade of B- or higher is required for IM 2600.

Graduation Requirements:

1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a "C-" in hospitality or other Woodbury School of Business Courses.
3. Residency hours--minimum of 20 credit hours through course attendance at UVU; at least 16 credits must be in Woodbury School of Business courses.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.

Hospitality Management, A.S.

Requirements

The Hospitality Management program in the Woodbury School of Business offers a Bachelor of Science degree in Hospitality Management (as well as supporting a Bachelor of Science degree in Business Management, with an Emphasis in Hospitality Management – listed elsewhere). Associate in Science and Associate in Applied Science degrees are also offered.

Total Program Credits: 60

<table>
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<tbody>
<tr>
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</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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</table>

Utah Valley University
Course Catalog 2023-2024
Organizational Leadership

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2010</td>
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Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
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</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>An Advanced Placement (AP) Mathematics Test with a score of 3 or higher</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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Complete the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
<td></td>
</tr>
<tr>
<td>EXSC 1097</td>
<td>Fitness for Life TE</td>
<td>2</td>
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Distribution Courses:

<table>
<thead>
<tr>
<th>Category</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td></td>
<td></td>
<td>3</td>
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<tr>
<td>Additional Biology or Physical Science</td>
<td></td>
<td></td>
<td>3</td>
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<tr>
<td>Humanities Distribution ¹</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Fine Arts Distribution</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Economics as a Social Science SS or Principles of Economics I SS</td>
<td>ECON 1010 or ECON 2010</td>
<td></td>
<td>3</td>
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</tbody>
</table>

Discipline Core Requirements: 18 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2110</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>HM 1010</td>
<td>Introduction to Hospitality Industry</td>
<td>3</td>
</tr>
<tr>
<td>HM 1180</td>
<td>Food and Beverage Management</td>
<td>3</td>
</tr>
<tr>
<td>HM 2500</td>
<td>Statistics for the Hospitality Industry</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GI WE</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 2390</td>
<td>Professional Business Presentations</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following: ²

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Business Computer Proficiency Exam</td>
<td></td>
</tr>
<tr>
<td>IM 2010</td>
<td>Business Computer Proficiency (3)</td>
<td></td>
</tr>
</tbody>
</table>

Elective Requirements: 7 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete seven hours of elective credits from HM, ACC, ECON, DGM, FIN, INFO, LEGL, MGMT, or MKTG courses.</td>
<td>7</td>
</tr>
</tbody>
</table>

Notes:

1. COMM 1020 Public Speaking HH recommended
2. Students will be required to complete the Business Computer Proficiency exam with a score of 80 percent or higher or complete the IM 2010 Business Computer Proficiency course with a score of 80 percent or higher.

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade below a “C-” in hospitality or other Woodbury School of Business courses.
3. Residency hours-- a minimum of 20 credit hours through course attendance at UVU: at least 16 credits must be in Woodbury School of Business
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.

Organizational Leadership and Change, Certificate of Proficiency

Requirements

The Organizational Leadership and Change Certificate of Proficiency is an industry certificate that will help both industry professionals interested in bolstering their leadership and change competencies and capabilities, as well as any current UVU student interested in earning a stackable credential on top of their major. Students will learn about ethical decision making within an organizational context, leadership theories and their application to practice, effective people management strategies, and how to effectively lead change initiatives within organizations. Completion of this certificate will allow students to signal organizational leadership and change management expertise to potential or current employers and add organizational leadership and change to round out their portfolio of abilities.

Total Program Credits: 16

<table>
<thead>
<tr>
<th>Category</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discipline Core:</td>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Complete 3 credits from the following:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MGMT 3000</td>
<td>Organizational Behavior WE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MGMT 3020</td>
<td>Individual Action and Corporate Social Responsibility</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HR 3430</td>
<td>Introduction to Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MGMT 3500</td>
<td>Leadership Theory and Application WE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HR 3550</td>
<td>Organization Development</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MGMT 481R</td>
<td>Internship (See advisor)</td>
<td>1</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Complete all required credits. 25% of credits must be taken at UVU. Receive a C- or better in all courses with an overall grade point average of 2.0 of above.

Organizational Leadership and Change, Certificate of Proficiency

Careers

1. Comprehension of major legal theories, laws and policies necessary for effective HRM and organizational leadership
2. Effectively respond to organizational opportunities through analytical thinking, problem-solving, ethical awareness, oral and written communications, effective teamwork.
3. Ability to design and strategically implement job design, recruitment, selection, retention, training and development, performance management, organizational development, change management, compensation and benefits, HRIS, and people analytics.

Event Planning, Minor

Requirements

The Minor in Event Planning will require eighteen credit hours of courses currently being offered. The minor provides undergraduate Woodbury Business students an official designation on their transcript, highlighting their specific qualifications in this area. The courses in the minor offer students the opportunity to learn event planning management techniques needed to successfully plan, manage, and execute events. Students who complete these classes will have a clear designation highlighting their preparation for this particular set of skills.

Total Program Credits: 18

Discipline Core Requirements: 15 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 2390</td>
<td>Professional Business Presentations</td>
<td>3</td>
</tr>
<tr>
<td>HM 1180</td>
<td>Food and Beverage Management</td>
<td>3</td>
</tr>
<tr>
<td>HM 3210</td>
<td>Event Venue and Convention Management</td>
<td>3</td>
</tr>
<tr>
<td>HM 4200</td>
<td>Event Planning</td>
<td>3</td>
</tr>
<tr>
<td>HM 4250</td>
<td>Advanced Event Production</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements: 3 Credits

Choose 3 credits from the Following

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA 1000</td>
<td>Culinary Basics</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3650</td>
<td>Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>ART 1400</td>
<td>Graphic Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>COMM 3560</td>
<td>Public Relations Event and Media</td>
<td>3</td>
</tr>
<tr>
<td>THEA 1513</td>
<td>Stagecraft I</td>
<td>2</td>
</tr>
<tr>
<td>THEA 1514</td>
<td>Stagecraft I Lab</td>
<td>1</td>
</tr>
<tr>
<td>TECH 3400</td>
<td>Project Management WE</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. A minimum of 2.5 GPA

Human Resource Management, Minor

Requirements

The HRM minor will provide students with practical and applied skills, experience in applying those skills, and a variety of intellectual tools to help them understand HRM in any organization. The proposed classes, engaged pedagogy, and instructors will aim to prepare students for staffing organizations, setting and advising procedures for recruitment, interview, and placement. Additionally, students will be prepared for carrying out disciplinary action, tracking leave and absences, and ensuring health, safety, and development of organizational employees. Students who obtain an HRM minor will also be understand labor law issues.

Total Program Credits: 18

Discipline Core Requirements: 16 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR 3430</td>
<td>Introduction to Human Resource Management</td>
</tr>
<tr>
<td>Complete 12 credits from the following courses:</td>
<td></td>
</tr>
<tr>
<td>HR 3530</td>
<td>Employment and Labor Law</td>
</tr>
<tr>
<td>HR 3550</td>
<td>Organization Development</td>
</tr>
<tr>
<td>HR 3570</td>
<td>Training and Development</td>
</tr>
<tr>
<td>HR 4000</td>
<td>Total Rewards</td>
</tr>
<tr>
<td>HR 4010</td>
<td>Total Compensation II--Benefits</td>
</tr>
<tr>
<td>HR 4050</td>
<td>Human Resource Information Systems</td>
</tr>
<tr>
<td>HR 4060</td>
<td>HR Analytics</td>
</tr>
<tr>
<td>HR 4610</td>
<td>Talent Acquisition and Performance Management</td>
</tr>
<tr>
<td>HR 470G</td>
<td>International Human Resource Management GI</td>
</tr>
<tr>
<td>HR 4800</td>
<td>Strategic Human Resource Management</td>
</tr>
<tr>
<td>HR 495R</td>
<td>Advanced Topics in Strategic Human Resource Management (1-3)</td>
</tr>
</tbody>
</table>

Complete 1 pre-approved elective credit (See Advisor for list of specific courses) 1

Graduation Requirements:

1. Overall grade point average of 2.5 in all Woodbury School of Business courses and no grade lower than a C- in business courses.

Human Resource Management, Minor

Careers

1. Students will demonstrate competence in understanding the functions of a Human Resources department.
2. Students will demonstrate abilities to identify ways to hire high potential job candidates for organizations through effective recruiting and selection methods.
3. Students will demonstrate an understanding of organizational regard systems and the financial implications of these systems.
4. Students will demonstrate knowledge about the issues related to managing employee performance.
5. Students will demonstrate understanding of programs related to managing employees and their ethical implications.
6. Students will demonstrate their knowledge of the regulatory and ethical frameworks influencing employee health, safety, and security.

Related Careers

• Compensation and Benefits Managers
• Human Resources Managers
• Training and Development Managers
• Human Resources Specialists
• Labor Relations Specialists
• Compensation, Benefits, and Job Analysis Specialists
• Training and Development Specialists
• Business Teachers, Postsecondary

Event Management, B.S.

Requirements

The BS in Event Management provides individuals with the theoretical and practical tools to be successful in the event industry. Graduate will
Organizational Leadership

emerge with a broad skill set to successfully plan and manage small to large-scale events in roles across private, public and not-for-profit organizations.

Following industry standards, students learn all aspects of event management, including strategic planning, communication, risk management, customer service, marketing, finance and logistics. The event management degree incorporates core curriculum from both the hospitality management and communication programs as well as core business classes that makes it a well-rounded business degree. Students will be provided multiple opportunities to interact and network with industry partners on in-class projects, real-world events, and internships where coursework can be applied to real-world experiences.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2110 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>or ACC 2010 Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td></td>
</tr>
<tr>
<td>IM 2010 Business Computer Proficiency (3)</td>
<td></td>
</tr>
<tr>
<td>or IM 2600 Spreadsheet Applications (3)</td>
<td></td>
</tr>
<tr>
<td>or My Educator</td>
<td></td>
</tr>
<tr>
<td>HM 2500 Statistics for the Hospitality Industry</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 2390 Professional Business Presentations</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 220G Written Business Communication GI WE</td>
<td></td>
</tr>
</tbody>
</table>

General Education Requirements: 35 Credits

| ENGL 1010 Introduction to Academic Writing CC | 3 |
| or ENGH 1005 Literacies and Composition Across Contexts CC (5) |  |
| ENGL 2010 Intermediate Academic Writing CC | 3 |

Complete one of the following: 3

| MAT 1030 Quantitative Reasoning QL (3) |  |
| MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6) |  |
| STAT 1040 Introduction to Statistics QL (3) |  |
| STAT 1045 Introduction to Statistics with Algebra QL (5) |  |
| MATH 1050 College Algebra QL (4) |  |
| MATH 1055 College Algebra with Preliminaries QL (5) |  |
| MATH 1090 College Algebra for Business QL (3) |  |

Complete one of the following: 3

| POLS 1000 American Heritage SS (3) |  |
| HIST 1700 American Civilization AS (3) |  |
| HIST 1740 US Economic History AS (3) |  |
| POLS 1100 American National Government AS (3) |  |

Complete the following:

| PHIL 2050 Ethics and Values IH | 3 |
| HLTH 1100 Personal Health and Wellness TE | 2 |
| or EXSC 1097 Fitness for Life TE (2) |  |

Distribution Courses:

| Biology | 3 |
Organizational Leadership

**THEA 2531** Introduction to Lighting and Sound (3)

**ART 1810** Introduction to Interior Design (3)

Complete 6 elective credits from the following: 6

**MKTG 3460** Internal Marketing and Corporate Imaging (3)

**MKTG 3650** Professional Selling (3)

**MGMT 3450** Operations Management (3)

**COMM 3560** Public Relations Event and Media Coordination (3)

General Electives: 11 Credits

Complete 11 General Electives 1000 level or higher 6

Notes:

1. Students will be required to complete the Business Computer Proficiency exam with a score of 80 percent or higher or complete IM 2010 or IM 2600 with a grade of B- or higher.

**Event Management, B.S.**

**Careers**

1. Apply marketing, finance, design, and operations practices to manage various types of events within the event industry.
2. Explain how to plan and manage a live event from inception to implementation to evaluation.
3. Communicate effectively to diverse audiences to successfully market and manage events.
4. Make precise event management decisions using critical thinking and problem-solving skills.
5. Manage people and vendors within the global event industry using leadership and conflict resolution skills.

**Hospitality Management, B.S.**

**Requirements**

The Bachelor of Science in Hospitality Management degree offers the possibility for a student to choose one of four specializations: General Operations; Revenue Management; Food and Beverage Management (designed mainly for Culinary Arts AAS graduates); and Foreign Language Track (which provides 12-15 hours of language credit).

**Total Program Credits: 120**

Matriculation Requirements:

**ACC 2110** Principles of Accounting I 3

or **ACC 210** Financial Accounting (3)
## Organizational Leadership

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GI WE</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 2390</td>
<td>Professional Business Presentations</td>
<td>3</td>
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</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM 2010</td>
<td>Business Computer Proficiency (3)</td>
<td></td>
</tr>
<tr>
<td>IM 2600</td>
<td>Spreadsheet Applications (3)</td>
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</table>

### My Educator

**Discipline Core Requirements:** 35 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HM 3000</td>
<td>Hospitality Industry Foundations</td>
<td>3</td>
</tr>
<tr>
<td>HM 3020</td>
<td>Hospitality Managerial Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>HM 3100</td>
<td>Hospitality Law</td>
<td>3</td>
</tr>
<tr>
<td>HM 3150</td>
<td>Hospitality Finance</td>
<td>3</td>
</tr>
<tr>
<td>HM 3030</td>
<td>Hospitality Managerial Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>HM 3210</td>
<td>Event Venue and Convention Management</td>
<td>3</td>
</tr>
<tr>
<td>HM 3400</td>
<td>Hotel Industry Analytics</td>
<td>2</td>
</tr>
<tr>
<td>HM 3710</td>
<td>Marketing of Hospitality Services</td>
<td>3</td>
</tr>
<tr>
<td>HM 4550</td>
<td>Hospitality Strategic Management WE</td>
<td>3</td>
</tr>
<tr>
<td>HM 481R</td>
<td>Internship</td>
<td>6</td>
</tr>
<tr>
<td>MGMT 3000</td>
<td>Organizational Behavior WE</td>
<td>3</td>
</tr>
<tr>
<td>or HR 3430</td>
<td>Introduction to Human Resource Management (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Discipline Core Requirements:** 38 Credits

Complete at least 6 hours of upper-division credits from WSB Advisors List.

Complete 32 credits of 1000-level or higher courses.

**Suggested Courses for Hotel/Resort:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HM 3390</td>
<td>Hotel Operations II (3)</td>
<td></td>
</tr>
<tr>
<td>HM 4400</td>
<td>Advanced Hotel and Tourism Analytics (3)</td>
<td></td>
</tr>
<tr>
<td>HM 4150</td>
<td>Hospitality Revenue Management (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Three additional credit hours of HM 481R Internship (total of 9 credit hours)</td>
<td></td>
</tr>
</tbody>
</table>

**Suggested courses for Event Management:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HM 4200</td>
<td>Event Planning (3)</td>
<td></td>
</tr>
<tr>
<td>HM 4250</td>
<td>Advanced Event Production (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Suggested for Food and Beverage:**

20 credit hours from Culinary Arts (CA) courses

### Notes:

1. Students will be required to complete My Educator business computer proficiency exam with a score of 80 percent or higher or complete IM 2010 Business Computer Proficiency or IM 2600 Spreadsheet Applications course with a grade of B- or higher.

### Graduation Requirements:

1. Completion of a minimum of 120 semester credits with at least 40 credit hours of upper-division classes.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all Woodbury School of Business courses. No grade lower than a "C-" in core and specialization courses.
3. Residency hours: minimum of 30 credit hours of business courses through course attendance at UVU, with at least 10 hours earned in the last 45 hours. At least 12 of the credit hours must be in Hospitality Management courses.
4. Completion of GE and specified departmental requirements.
5. Students are responsible for completing all prerequisite courses.
6. Successful completion of at least one Global/Intercultural course.

**NOTE:** Students will be limited to 9 hours of upper-division credit until Matriculation is completed.

## Human Resource Management, B.A.

### Requirements

Provides students with a broad knowledge about the field of human resource management. Develops expertise in the key processes of functional areas such as talent acquisition, total rewards, and employee relations. Prepares students to consult with multiple stakeholders, including organizational executives, managers, and individual employees. Provides opportunities to interact with human resource professionals and solve human resource management problems with real company projects. Readies students to be individual contributors in human resource departments. Prepares students for the industry recognized aPHR certification exam.

### Total Program Credits: 120

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>One of the following:</td>
<td></td>
</tr>
<tr>
<td>My Educator</td>
<td></td>
</tr>
<tr>
<td>or IM 2010 Business Computer Proficiency (3) (Complete with B- grade or higher)</td>
<td>3</td>
</tr>
<tr>
<td>or IM 2600 Spreadsheet Applications (3) (Complete with B- grade or higher)</td>
<td></td>
</tr>
<tr>
<td>MKTG 220G Written Business Communication GI WE (Complete with B- grade or higher)</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 2390 Professional Business Presentations</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2340 Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2010 Principles of Economics I SS</td>
<td>3</td>
</tr>
<tr>
<td>ACC 2110 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2240 Business Calculus</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 1100 Survey of Calculus QL (4)</td>
<td></td>
</tr>
<tr>
<td>MGMT 2400 Data Analytics for Business</td>
<td>3</td>
</tr>
<tr>
<td><strong>General Education Requirements:</strong></td>
<td></td>
</tr>
<tr>
<td>36 Credits</td>
<td></td>
</tr>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td></td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>MATH 1090 College Algebra for Business QL (3)</td>
<td></td>
</tr>
<tr>
<td>An Advanced Placement (AP) Mathematics Test with a score of 3 or higher</td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td></td>
</tr>
<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
<td></td>
</tr>
</tbody>
</table>

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**440 Course Catalog 2023-2024 Utah Valley University**
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Organizational Leadership**

**Human Resource Management Core Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR 3430</td>
<td>Introduction to Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>HR 3530</td>
<td>Employment and Labor Law</td>
<td>3</td>
</tr>
<tr>
<td>HR 3570</td>
<td>Training and Development</td>
<td>3</td>
</tr>
<tr>
<td>HR 4000</td>
<td>Total Rewards</td>
<td>3</td>
</tr>
<tr>
<td>HR 4050</td>
<td>Human Resource Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>HR 4060</td>
<td>HR Analytics</td>
<td>3</td>
</tr>
<tr>
<td>HR 4610</td>
<td>Talent Acquisition and Performance Management</td>
<td>3</td>
</tr>
<tr>
<td>HR 4800</td>
<td>Strategic Human Resource Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Requirements:**

Complete 12 credits of any foreign language course 1010, 1020, 2010 sequence: 12 credits
Complete 11 credits numbered 1000 or higher: 11 credits

**Notes:**

1. Students will be required to complete My Educator with a score of 80 percent or higher or complete IM 2010 or IM 2600 with a grade of B or higher.
2. Cannot be taken until student is matriculated.

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits required in the BA degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all Woodbury School of Business courses. No grade lower than a "C-" in core and specialization courses.
3. Residency hours: Minimum of 30 credit hours of business courses through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Students are responsible for completing all prerequisite courses.
6. Successful completion of at least one Global/Intercultural course.

**Notes:** Students will be limited to 9 hours of upper-division credit until matriculation is completed.

**Human Resource Management, B.A.**

**Careers**

1. Apply fundamental processes in the key functions of human resources.
2. Solve human resource problems using a systematic process to develop credible recommendations.
3. Find and analyze data using industry research techniques and professional resources.
4. Create high quality data following industry research standards to answer organization specific questions.
5. Use human resource management language to communicate professionally in both oral and written mediums.

**Related Careers**

- Compensation and Benefits Managers
- Human Resources Managers
- Training and Development Managers
Organizational Leadership

- Human Resources Specialists
- Labor Relations Specialists
- Compensation, Benefits, and Job Analysis Specialists
- Training and Development Specialists
- Business Teachers, Postsecondary

Human Resource Management, B.S.

Requirements

Provides students with a broad knowledge about the field of human resource management. Develops expertise in the key processes of functional areas such as talent acquisition, total rewards, and employee relations. Prepares students to consult with multiple stakeholders, including organizational executives, managers, and individual employees. Provides opportunities to interact with human resource professional and solve human resource management problems with real company projects. Prepares students to be individual contributors in human resource departments. Prepares students for the industry recognized aPHR certification exam.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>My Educator</td>
</tr>
<tr>
<td>or IM 2010</td>
</tr>
<tr>
<td>or IM 2600</td>
</tr>
<tr>
<td>MKTG 220G</td>
</tr>
<tr>
<td>MKTG 2390</td>
</tr>
<tr>
<td>MGMT 2340</td>
</tr>
<tr>
<td>ECON 2010</td>
</tr>
<tr>
<td>ACC 2110</td>
</tr>
<tr>
<td>MGMT 2240</td>
</tr>
<tr>
<td>or MATH 1100</td>
</tr>
<tr>
<td>MGMT 2400</td>
</tr>
</tbody>
</table>

General Education Requirements: 35 Credits

| ENGL 1010 | Introduction to Academic Writing CC 3 |
| or ENGH 1005 | Literacies and Composition Across Contexts CC (5) |
| ENGL 2010 | Intermediate Academic Writing CC 3 |

Complete one of the following: 3

| MATH 1050 | College Algebra QL (4) |
| MATH 1055 | College Algebra with Preliminaries QL (5) |
| MATH 1090 | College Algebra for Business QL (3) |
| An Advanced Placement (AP) Mathematics Test with a score of 3 or higher |

Complete one of the following: 3

| HIST 2700 | US History to 1877 AS (3) |
| HIST 2710 | US History since 1877 AS (3) |
| HIST 1700 | American Civilization AS (3) |
| HIST 1740 | US Economic History AS (3) |
| POLS 1000 | American Heritage SS (3) |
| POLS 1100 | American National Government AS (3) |

Complete the following:

| PHIL 2050 | Ethics and Values IH 3 |
| PHIL 205G | Ethics and Values IH GI |
| PHIL 205H | Ethics and Values IH |
| HLTH 1100 | Personal Health and Wellness TE (2) |
| or EXSC 1097 | Fitness for Life TE 2 |

Distribution Courses:

| ECON 2010 | Principles of Economics I SS 3 |
| Biology | 3 |
| Physical Science | 3 |
| Additional Biology or Physical Science | 3 |
| Humanities Distribution | 3 |
| Fine Arts Distribution | 3 |

Discipline Core Requirements: 37 Credits

Business Foundation Courses (required for matriculation):

| My Educator | 1 |
| or IM 2010 | Business Computer Proficiency (3) (Complete with B- grade or higher) |
| or IM 2600 | Spreadsheet Applications (3) (Complete with B- grade or higher) |

Complete the following:

| ACC 2110 | Principles of Accounting I 3 |
| MGMT 2240 | Business Calculus 3 |
| or MATH 1100 | Survey of Calculus QL (4) |
| MKTG 220G | Written Business Communication GI WE (Complete with B- grade or higher) 3 |
| MGMT 2340 | Business Statistics I 3 |
| MKTG 2390 | Professional Business Presentations 3 |
| MGMT 2400 | Data Analytics for Business 3 |

Business Core Courses:

| FIN 3100 | Principles of Finance 2 3 |
| MGMT 3000 | Organizational Behavior WE 3 |
| HR 470G | International Human Resource Management GI 3 |
| or MGMT 330G | Survey of International Business GI (3) |
| or MGMT 332G | Cross-Cultural Communications for International Business GI (3) |
| or ECON 305G | International Economics GI (3) |
| or MKTG 335G | International Marketing GI (3) |
| MGMT 3450 | Operations Management 3 |
| MKTG 3600 | Principles of Marketing 3 |
| MGMT 495R | Executive Lecture Series 1 |
| or ENTR 493R | Entrepreneurship Lecture Series |
| MGMT 4860 | Business Strategy Formulation and Implementation 2 3 |

Human Resource Management Core Requirements: 48 Credits
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR 3430</td>
<td>Introduction to Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>HR 3530</td>
<td>Employment and Labor Law</td>
<td>3</td>
</tr>
<tr>
<td>HR 3570</td>
<td>Training and Development</td>
<td>3</td>
</tr>
<tr>
<td>HR 4000</td>
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<td>Talent Acquisition and Performance Management</td>
<td>3</td>
</tr>
<tr>
<td>HR 4800</td>
<td>Strategic Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete 9 credits from the following:</td>
<td>9</td>
</tr>
<tr>
<td>HR 3550</td>
<td>Organization Development</td>
<td>(3)</td>
</tr>
<tr>
<td>HR 3570</td>
<td>Training and Development</td>
<td>(3)</td>
</tr>
<tr>
<td>HR 4000</td>
<td>Total Compensation I–Pay and Incentives</td>
<td>(3)</td>
</tr>
<tr>
<td>HR 4010</td>
<td>Total Compensation II–Benefits</td>
<td>(3)</td>
</tr>
<tr>
<td>HR 4610</td>
<td>Strategic Staffing &amp; Performance Evaluation</td>
<td>(3)</td>
</tr>
<tr>
<td>HR 470G</td>
<td>International Human Resource Management</td>
<td>(3)</td>
</tr>
<tr>
<td>HR 495R</td>
<td>Advanced Topics in Strategic Human Resource</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Select 24 credits of any 1000 level course or higher (it is recommended that students complete a minor).

**Notes:**

1. Students will be required to complete My Educator with a score of 80 percent or higher or complete IM 2010 or IM 2600 with a grade of B- or higher.
2. Cannot be taken until student is matriculated.

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits required in the BA degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all Woodbury School of Business courses. No grade lower than a "C-" in core and specialization courses.
3. Residency hours: Minimum of 30 credit hours of business courses through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.

**Related Careers**

- Compensation and Benefits Managers
- Human Resources Managers
- Training and Development Managers
- Human Resources Specialists
- Labor Relations Specialists
- Compensation, Benefits, and Job Analysis Specialists
- Training and Development Specialists
- Business Teachers, Postsecondary

**Human Resource Management, B.S.**

**Careers**

1. Apply fundamental processes in the key functions of human resources.
2. Solve human resource problems using a systematic process to develop credible recommendations.
3. Find and analyze data using industry research techniques and professional resources.
4. Create high quality data following industry research standards to answer organization specific questions.
Philosophy and Humanities

The Philosophy and Humanities department is in the College of Humanities & Social Sciences. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Philosophy and Humanities department, visit their website.

Course Descriptions

Classical Studies.............................................................................................................. 592
Environmental Studies................................................................................................. 682
Greek............................................................................................................................... 722
Humanities...................................................................................................................... 736
Interdisciplinary Studies Prog....................................................................................... 740
Latin................................................................................................................................. 756
Philosophy...................................................................................................................... 803
Religious Studies........................................................................................................... 832

Degrees & Programs

Humanities, A.A.

Requirements

The discipline of humanities is the study of human intellectual and artistic creativity and what the resulting artistic forms reveal about the human experience. This field of study draws on other disciplines such as history, fine arts, literature, intellectual history, music, foreign languages, theology, and philosophy to see how the several artistic forms communicate and work together to give an in-depth record of the meaning of human life in the past and present. The discipline also emphasizes the relationship between the arts, culture, and society. A background in humanities is helpful in preparing for employment in education, business, government, civil and foreign service, tourism, and in preparation for graduate studies.

Total Program Credits: 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following:

| MAT 1030 Quantitative Reasoning QL (3) | |
| MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6) | |
| STAT 1040 Introduction to Statistics QL (3) | |
| STAT 1045 Introduction to Statistics with Algebra QL (5) | |
| MATH 1050 College Algebra QL (4) | |
| MATH 1055 College Algebra with Preliminaries QL (5) | |
| MATH 1090 College Algebra for Business QL (3) | |

Complete the following:

| HIST 2700 US History to 1877 AS (3) | |
| and HIST 2710 US History since 1877 AS (3) | |
| HIST 1700 American Civilization AS (3) | |
| HIST 1740 US Economic History AS (3) | |
| POLS 1000 American Heritage SS (3) | |
| POLS 1100 American National Government AS (3) | |

Complete the following:

| PHIL 2050 Ethics and Values IH | 3 |
| or PHIL 205H Ethics and Values IH (3) | |
| or PHIL 205G Ethics and Values IH GI (3) | |
| HLTH 1100 Personal Health and Wellness TE | 2 |
| or EXSC 1097 Fitness for Life TE (2) | |

Distribution Courses:

- Biology ...................................................................................................................... 3
- Physical Science ......................................................................................................... 3
- Additional Biology or Physical Science ....................................................................... 3
- Humanities Distribution .............................................................................................. 3
- Fine Arts Distribution .................................................................................................. 3
- Social/Behavioral Science ............................................................................................ 3

Discipline Core Requirements: 12 Credits

Complete one of the following:

| HUM 1010 Humanities Through the Arts HH (3) | |
| or HUM 101H Humanities Through the Arts HH (3) | |
| or HUM 101G Humanities Through the Arts HH GI (3) | |

Complete one of the following:

| HUM 2010 World History Through the Arts I HH (3) | |
or **HUM 201G** World History Through the Arts I HH GI (3)
or **HUM 201H** World History Through the Arts I HH (3)

Complete one of the following: 3

**HUM 2020** World History Through the Arts II HH (3)
or **HUM 202G** World History Through the Arts II HH GI (3)
or **HUM 202H** World History Through the Arts II HH (3)

Complete one of the following: 3

**HUM 2100** Adventures of Ideas Through 1500 HH (3)
or **HUM 210H** Adventures of Ideas Through 1500 HH (3)
or **HUM 2200** Adventures of Ideas After 1500 HH (3)
or **HUM 220H** Adventures of Ideas After 1500 HH (3)

Elective Requirements: 13 Credits

Same Foreign Language 8

Any course 1000 or higher 5

**Graduation Requirements:**
1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. For the AA degree, completion of 6 credit hours of course work from one language.

**Humanities, A.A.**

**Careers**

1. Students will formulate complex ideas and persuasive, original arguments in writing and speech, with particular attention to the practice of critical writing.

**Related Careers**

- Postsecondary Teachers, All Other

**Humanities, A.S.**

**Requirements**

The discipline of humanities is the study of human intellectual and artistic creativity and what the resulting artistic forms reveal about the human experience. This field of study draws on other disciplines such as history, fine arts, literature, intellectual history, music, foreign languages, theology, and philosophy to see how the several artistic forms communicate and work together to give an in-depth record of the meaning of human life in the past and present. The discipline also emphasizes the relationship between the arts, culture, and society. A background in humanities is helpful in preparing for employment in education, business, government, civil and foreign service, tourism, and in preparation for graduate studies.

**Total Program Credits: 60**

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<tbody>
<tr>
<td><strong>ENGL 1010</strong> Introduction to Academic Writing CC</td>
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</tr>
</tbody>
</table>

or **ENGL 1005** Literacies and Composition Across Contexts CC (5)

**Complete the following:**

**MAT 1030** Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors)

**MAT 1035** Quantitative Reasoning with Integrated Algebra QL (6)

**STAT 1040** Introduction to Statistics QL (3) (recommended for Social Science majors)

**STAT 1045** Introduction to Statistics with Algebra QL (5)

**MATH 1050** College Algebra QL (4) (recommended for Business, Education, Science, and Health Professions majors)

**MATH 1055** College Algebra with Preliminaries QL (5)

**MATH 1090** College Algebra for Business QL (3) (Recommended for Business majors)

Complete the following: 3

**HIST 2700** US History to 1877 AS (3)

and **HIST 2710** US History since 1877 AS (3)

**HIST 1700** American Civilization AS (3)

**HIST 1740** US Economic History AS (3)

**POLS 1000** American Heritage SS (3)

**POLS 1100** American National Government AS (3)

Complete the following:

**PHIL 2050** Ethics and Values IH 3

or **PHIL 205G** Ethics and Values IH GI (3)

or **PHIL 205H** Ethics and Values IH (3)

**HLTH 1100** Personal Health and Wellness TE 2

or **EXSC 1097** Fitness for Life TE (2)

**Distribution Courses:**

- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution 3
- Fine Arts Distribution 3
- Social/Behavioral Science 3

**Discipline Core Requirements:** 12 Credits

Complete one of the following: 3

**HUM 1010** Humanities Through the Arts HH (3)

**HUM 101G** Humanities Through the Arts HH GI (3)

**HUM 101H** Humanities Through the Arts HH (3)

Complete one of the following: 3

**HUM 2010** World History Through the Arts I HH (3)

**HUM 201G** World History Through the Arts I HH GI (3)
Philosophy and Humanities

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUM 201H</td>
<td>World History Through the Arts I HH (3)</td>
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</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUM 2020</td>
<td>World History Through the Arts II HH (3)</td>
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</tr>
<tr>
<td>HUM 202G</td>
<td>World History Through the Arts II HH GI (3)</td>
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<tr>
<td>HUM 202H</td>
<td>World History Through the Arts II HH (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUM 2100</td>
<td>Adventures of Ideas Through 1500 HH (3)</td>
<td></td>
</tr>
<tr>
<td>HUM 210H</td>
<td>Adventures of Ideas Through 1500 HH (3)</td>
<td></td>
</tr>
<tr>
<td>HUM 2200</td>
<td>Adventures of Ideas After 1500 HH (3)</td>
<td></td>
</tr>
<tr>
<td>HUM 220H</td>
<td>Adventures of Ideas After 1500 HH (3)</td>
<td></td>
</tr>
</tbody>
</table>

Elective Requirements: 13 Credits

Any course 1000 level or higher 13

Graduation Requirements:
1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Humanities, A.S.

Careers

1. Students will formulate complex ideas and persuasive, original arguments in writing and speech, with particular attention to the practice of critical writing.
2. Through the development of skills, students will learn to 1) write and speak effectively communication in a variety of settings (e.g. academic, civic and professional); 2) appropriately use the conventions associated with writing and speaking; 3) acquire an awareness of audience and purpose; and 4) formulate and recognize a coherent problem and a reasonable solution.

Related Careers

- Postsecondary Teachers, All Other

Ethics, Certificate of Proficiency

Requirements

A student in the Ethics program is offered an innovative approach in correlating various disciplines with structured ethical research. The program offers students opportunities to enhance their capacity to enter their chosen professions, careers, and vocations as ethical leaders. Students will examine real world ethical issues in the context of various disciplines, a valuable credential for employment and further education.

UVU has had a vested interest in Interdisciplinary Ethics since the 1980s, offering prestigious programs such as Ethics Across the Curriculum and hosting the only Ethics Center in the USHE system. The undergraduate Ethics curriculum and the Center for the Study of Ethics have received repeated national recognitions for their innovative and influential programs, conferences, events, symposia, and lecture series that educate students and the community about contemporary ethical issues.

Total Program Credits: 21

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>6 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 355G Moral Philosophy GI</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements: 15 Credits

Complete 15 credits from the following: 15

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 130R</td>
<td>Ethics Forum (1) (Limited to a maximum of 3 credits)</td>
<td></td>
</tr>
<tr>
<td>PHIL 3040</td>
<td>Media Ethics (3)</td>
<td></td>
</tr>
<tr>
<td>or COMM 3040</td>
<td>Media Ethics (3)</td>
<td></td>
</tr>
<tr>
<td>PHIL 3450</td>
<td>Philosophy of Childhood (3)</td>
<td></td>
</tr>
<tr>
<td>PHIL 3460</td>
<td>The Ethics of Human/Animal Relationships (3)</td>
<td></td>
</tr>
<tr>
<td>PHIL 3510</td>
<td>Business and Professional Ethics (3)</td>
<td></td>
</tr>
<tr>
<td>PHIL 3520</td>
<td>Bioethics (3)</td>
<td></td>
</tr>
<tr>
<td>PHIL 3530</td>
<td>Environmental Ethics (3)</td>
<td></td>
</tr>
<tr>
<td>PHIL 3540</td>
<td>Christian Ethics (3)</td>
<td></td>
</tr>
<tr>
<td>PHIL 357R</td>
<td>Moral Reasoning Through Case Studies Ethics Bowl (3) (Limited to a maximum of 3 credits with approval of instructor and department chair)</td>
<td></td>
</tr>
<tr>
<td>PHIL 3700</td>
<td>Social and Political Philosophy (3)</td>
<td></td>
</tr>
<tr>
<td>PHIL 3710</td>
<td>Philosophy of Law (3)</td>
<td></td>
</tr>
<tr>
<td>PHIL 450R</td>
<td>Interdisciplinary Senior Ethics Seminar (3)</td>
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</tr>
<tr>
<td>PHIL 451R</td>
<td>Ethical Theory Seminar (3)</td>
<td></td>
</tr>
<tr>
<td>PHIL 490R</td>
<td>Independent Study (1-3) (Limited to a maximum of 3 credits)</td>
<td></td>
</tr>
<tr>
<td>PHIL 481R</td>
<td>Internship (3) (1-6)</td>
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</tr>
<tr>
<td>ASL 4370</td>
<td>Ethics for Interpreters (3)</td>
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</tr>
<tr>
<td>BIOL 4260</td>
<td>Ethical Issues in Biology WE (2)</td>
<td></td>
</tr>
<tr>
<td>CS 305G</td>
<td>Global Social and Ethical Issues in Computing GI WE (3)</td>
<td></td>
</tr>
<tr>
<td>PJST 3000</td>
<td>Introduction to Peace and Justice Studies WE (3)</td>
<td></td>
</tr>
<tr>
<td>AVSC 410G</td>
<td>Global Ethical and Professional Issues in Aviation GI (3)</td>
<td></td>
</tr>
<tr>
<td>ESFF 2100</td>
<td>Servant-Leadership for the Emergency Services (3)</td>
<td></td>
</tr>
<tr>
<td>CJ 4200</td>
<td>Ethical Issues in Criminal Justice (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 3300</td>
<td>Introduction to Public Administration (3)</td>
<td></td>
</tr>
<tr>
<td>ESMG 4650</td>
<td>Emergency Services Capstone WE (3)</td>
<td></td>
</tr>
</tbody>
</table>

other advisor-approved course

Graduation Requirements:
1. Completion of a minimum of 21 credits.
2. Overall grade point average of 2.0 or above.
3. Residency hours -- Minimum of 6 credits required through course attendance at UVU.
Ethics, Certificate of Proficiency

Careers

1. To think critically, creatively, and competently about a broad range of ethical issues.
2. Develop an understanding of how to apply theoretical ethical concepts and principles to real-life situations and conundrums.
3. Make informed, suitable, compassionate ethical decisions.
4. Gain a comprehensive understanding of philosophical ethical theories and the interdisciplinarity of ethics.
5. Ability to work collaboratively with other students.
6. Communicate with clarity and precision verbally and in writing.
7. Research, evaluate, analyze, interpret, and assess ethical theories and practices.

Related Careers

- Philosophy and Religion Teachers, Postsecondary

Classical Studies, Minor

Requirements

Classical traditionally refers to the study of language, philosophy, arts, literatures, history, and more of ancient Greece and Rome. At UVU, Classics takes a more global and diverse approach, recognizing that many cultures around the world have had “classical periods” which have shaped their entire pre-modern histories and continue to influence the world today. At present, the Classics minor at UVU offers particular strengths in ancient Greece and China, along with Rome-including language training in Ancient Greek, Classical Chinese, and Latin (with the hope and possibility for more). The program aims to preserve and promote the strengths of traditional Classics while also critically incorporating global and non-Western classical traditions for a more comparative and multicultural approach to ancient civilization, value, the canon, and the very idea of classics.

Total Program Credits: 18

Matriculation Requirements:

1. Completion of 30 hours of credit.

Discipline Core Requirements: 9 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2110</td>
<td>Ancient Greek Philosophy WE</td>
</tr>
<tr>
<td>HIST 3110</td>
<td>Greek History</td>
</tr>
</tbody>
</table>

Roman History (complete 3 credits from the following): 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 3130</td>
<td>Roman History</td>
</tr>
<tr>
<td>HIST 3140</td>
<td>Roman Empire</td>
</tr>
</tbody>
</table>

Elective Requirements: 9 Credits

In addition to the 9 credits of core requirements, students must complete an additional 9 hours of electives. The following list of courses has been approved for the Classical Studies IS Emphasis. If a course that is not represented on the following list has sufficient classical studies related content, the student may seek approval from the Classical Studies Coordinator to have the course count toward the IS Emphasis. Note: Latin or Greek language coursework applied toward a Student's foreign language requirement will not be applied toward Classical Studies elective requirements.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 2030</td>
<td>Archeological Method and Theory</td>
</tr>
<tr>
<td>ARTH 2710</td>
<td>Prehistoric Through Gothic Art History</td>
</tr>
<tr>
<td>ARTH 3020</td>
<td>Classical Art and Architecture History</td>
</tr>
</tbody>
</table>

ENGL 2230  | Myths and Legends in Literature HH | 3     |
ENGL 3610  | Medieval Literature            | 3     |
ENGL 376G  | World Literature GI           | 3     |
HIST 3130  | Roman History                  | 3     |
HIST 3140  | Roman Empire                   | 3     |
HONR 2000  | Ancient Legacies HH           | 3     |
HUM 2010  | World History Through the Arts I HH | 3     |
HUM 2500  | Introduction to Ancient Greek I | 6     |
HUM 2510  | Introduction to Ancient Greek II | 6     |
PHIL 2130  | Medieval Philosophy           | 3     |
PHIL 386R  | Topics in Ancient Philosophy  | 3     |
GRK 1010  | Beginning Ancient Greek I LH   | 4     |
GRK 1020  | Beginning Ancient Greek II LH  | 4     |
GRK 2010  | Intermediate Ancient Greek I LH | 4   |
GRK 2020  | Intermediate Ancient Greek II LH | 4   |
GRK 3010  | Readings in Ancient Greek     | 3     |
LATN 1010  | Beginning Latin I LH           | 4     |
LATN 1020  | Beginning Latin II LH          | 4     |
LATN 2010  | Intermediate Latin I LH        | 4     |
LATN 2020  | Intermediate Latin II LH       | 4     |
LATN 3010  | Readings in Latin             | 3     |

Graduation Requirements:

1. Overall grade point average of 2.0 (C) or above.
2. Residency hours—minimum of 12 credit hours through course attendance at UVU.

Classical Studies, Minor

Careers

1. Demonstrate knowledge of classical languages (including but not limited to Ancient Greek, Latin, and Classical Chinese) at an advanced level, including the ability to read and translate texts in the original.
2. Evaluate the contribution of classical civilizations to later history—including the modern world—with skills in historical analysis, multicultural awareness, and mental flexibility.
3. Acquire familiarity with the languages, philosophy, visual arts, drama, sports, politics, economics, history, religions, and literatures of ancient civilizations, understanding them in their own context and how they continue to shape contemporary life.
4. Understand classics, antiquity, and culture through comparative and interdisciplinary approaches, emphasizing ancient civilizations as complex systems in a multicultural world.

Related Careers

- Historians

Environmental Studies, Minor

Requirements

Environmental Studies explores the complex links between human culture and the natural world. The program challenges students to critically examine both the ecological and social context of environmental issues and the numerous connections between natural and social systems, from local to global scales. It is undeniable that...
humans have a profound impact on the environment. To have the greatest positive influence, we must seek knowledge of the structure and function of natural systems, as well as an understanding of how culture affects the way we perceive nature.

Total Program Credits: 18

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>3 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENST 3000 Introduction to Environmental Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Requirements</th>
<th>15 Credits</th>
</tr>
</thead>
</table>

Choose 6 credits from the following courses in the College of Humanities and Social Sciences or the Woodbury School of Business.

<table>
<thead>
<tr>
<th>ANTH 3150 Culture Ecology and Health (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 3830 Biology and Culture (3)</td>
</tr>
<tr>
<td>COMM 3115 Communicating in Environments (3)</td>
</tr>
<tr>
<td>COMM 3130 The Culture of Nature and Technology (3)</td>
</tr>
<tr>
<td>ENGL 3460 Wilderness and Environmental Writing (3)</td>
</tr>
<tr>
<td>HIST 3800 Environmental History of the United States (3)</td>
</tr>
<tr>
<td>PHIL 3530 Environmental Ethics (3)</td>
</tr>
<tr>
<td>PHIL 4300 Environmental Aesthetics (3)</td>
</tr>
<tr>
<td>PHIL 3460 The Ethics of Human/Animal Relationships (3)</td>
</tr>
<tr>
<td>or HUM 4300 Environmental Aesthetics (3)</td>
</tr>
</tbody>
</table>

Choose 6 credits from the following courses in the College of Science. 3 of these credits must be at the 3000 or 4000 level.

<table>
<thead>
<tr>
<th>BIOL 1010 General Biology BB (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1610 College Biology I BB and College Biology I Laboratory (5)</td>
</tr>
<tr>
<td>BIOL 1620 College Biology II BB and College Biology II Laboratory (4)</td>
</tr>
<tr>
<td>BIOL 2500 Environmental Biology (3)</td>
</tr>
<tr>
<td>BIOL 3700 General Ecology (3)</td>
</tr>
<tr>
<td>BIOL 3800 Conservation Biology (3)</td>
</tr>
<tr>
<td>ENVT 3280 Environmental Law (3)</td>
</tr>
<tr>
<td>BIOL 4000 Freshwater Ecology (4)</td>
</tr>
<tr>
<td>BIOL 4260 Ethical Issues in Biology WE (2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BOT 2050 Field Botany 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT 2100 Flora of Utah (3)</td>
</tr>
<tr>
<td>BOT 3800 Ethnobotany WE (4)</td>
</tr>
</tbody>
</table>

Chemistry

<table>
<thead>
<tr>
<th>CHEM 1120 Elementary Organic Bio-Chemistry (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 3020 Environmental Chemistry (3)</td>
</tr>
<tr>
<td>CHEM 4030 Radiocarbon Chemistry (3)</td>
</tr>
</tbody>
</table>

Environmental Management

<table>
<thead>
<tr>
<th>ENVT 1110 Introduction to Environmental Management (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVT 1270 Environmental Microbiology (3)</td>
</tr>
<tr>
<td>ENVT 1510 Hazardous Materials Emergency Response (3)</td>
</tr>
<tr>
<td>ENVT 2560 Environmental Health (3)</td>
</tr>
<tr>
<td>ENVT 2730 Introduction to Soils (4)</td>
</tr>
<tr>
<td>ENVT 3210 Water Quality and Reclamation (4)</td>
</tr>
<tr>
<td>ENVT 3280 Environmental Law (3)</td>
</tr>
<tr>
<td>ENVT 3330 Water Resources Management (3)</td>
</tr>
<tr>
<td>ENVT 3630 Introduction to Geographic Information Systems (4)</td>
</tr>
<tr>
<td>ENVT 3750 Land Use Planning (3)</td>
</tr>
<tr>
<td>ENVT 3770 Natural Resources Management (3)</td>
</tr>
<tr>
<td>ENVT 3800 Energy Use on Earth (3)</td>
</tr>
</tbody>
</table>

Geology

<table>
<thead>
<tr>
<th>GEO 1020 Prehistoric Life (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 1080 Introduction to Oceanography (3)</td>
</tr>
<tr>
<td>GEO 1220 Historical Geology (3)</td>
</tr>
<tr>
<td>GEO 3000 Environmental Geochemistry (3)</td>
</tr>
<tr>
<td>GEO 3200 Geologic Hazards (3)</td>
</tr>
<tr>
<td>GEO 3500 Geomorphology WE (4)</td>
</tr>
<tr>
<td>GEO 4510 Paleontology (4)</td>
</tr>
</tbody>
</table>

Geography

<table>
<thead>
<tr>
<th>GEOG 1000 Introduction to Physical Geography (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 3400 Environmental Remote Sensing (3)</td>
</tr>
<tr>
<td>GEOG 3600 Introduction to Geographic Information Systems (4)</td>
</tr>
<tr>
<td>GEOG 3650 Advanced Geographic Information Systems (4)</td>
</tr>
<tr>
<td>GEOG 3700 Wetland Studies (3)</td>
</tr>
<tr>
<td>GEOG 3800 Environmental History of the United States (3)</td>
</tr>
</tbody>
</table>

Meteorology

<table>
<thead>
<tr>
<th>METO 1010 Introduction to Meteorology (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>METO 3100 Climate and the Earth System (3)</td>
</tr>
</tbody>
</table>

Physics

<table>
<thead>
<tr>
<th>PHYS 1800 Energy You and the Environment (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 3800 Energy Use on Earth (3)</td>
</tr>
</tbody>
</table>

Outdoor Recreation

<p>| REC 2200 Foundations of Recreation (3) |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REC 2700</td>
<td>Leave No Trace Trainer (1)</td>
<td></td>
</tr>
<tr>
<td>REC 385G</td>
<td>Ethical Concerns in Recreation (3)</td>
<td></td>
</tr>
<tr>
<td>REC 420R</td>
<td>Outdoor Leadership and Management</td>
<td></td>
</tr>
<tr>
<td>REC 4400</td>
<td>Natural Resource and Protected Area</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management (3)</td>
<td></td>
</tr>
<tr>
<td><strong>Zoology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZOOL 3100</td>
<td>Vertebrate Zoology and Vertebrate</td>
<td></td>
</tr>
<tr>
<td>and ZOOL</td>
<td>Zoology Laboratory (4)</td>
<td></td>
</tr>
<tr>
<td>3105</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZOOL 3200</td>
<td>Invertebrate Zoology and Invertebrate</td>
<td></td>
</tr>
<tr>
<td>and ZOOL</td>
<td>Zoology Laboratory (4)</td>
<td></td>
</tr>
<tr>
<td>3205</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZOOL 3300</td>
<td>Herpetology and Herpetology Laboratory (4)</td>
<td></td>
</tr>
<tr>
<td>and ZOOL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3305</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZOOL 3430</td>
<td>Entomology and Entomology Laboratory (4)</td>
<td></td>
</tr>
<tr>
<td>and ZOOL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3435</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZOOL 3500</td>
<td>Mammalogy and Mammalogy Laboratory</td>
<td></td>
</tr>
<tr>
<td>and ZOOL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3505</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZOOL 4000</td>
<td>Animal Behavior (3)</td>
<td></td>
</tr>
<tr>
<td>ZOOL 4600</td>
<td>Ornithology (4)</td>
<td></td>
</tr>
<tr>
<td>Choose an additional 3 credits from any of the courses listed above – OR – complete 3 hours of research credits, service project credits, or internship credits</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Ethics, Minor**

**Requirements**

A student in the Ethics program is offered an innovative approach in correlating various disciplines with structured ethical research. The program offers students opportunities to enhance their capacity to enter their chosen professions, careers, and vocations as ethical leaders. Students will examine real world ethical issues in the context of various disciplines, a valuable credential for employment and further education.

UVU has had a vested interest in Interdisciplinary Ethics since the 1980s, offering prestigious programs such as Ethics Across the Curriculum and hosting the only Ethics Center in the USHE system. The undergraduate Ethics curriculum and the Center for the Study of Ethics have received repeated national recognitions for their innovative and influential programs, conferences, events, symposia, and lecture series that educate students and the community about contemporary ethical issues.

**Total Program Credits: 18**

**Matriculation Requirements:**

1. Admitted to a bachelor degree program at UVU.
2. Discipline Core Requirements: 6 Credits
   - PHIL 355G Moral Philosophy GI 3
   - PHIL 481R Internship (1-6) 3
3. Elective Requirements: 12 Credits
4. Complete 12 credits from the following:
   - PHIL 130R Ethics Forum (1) (Limited to a maximum of 3 credits)
   - PHIL 3040 Media Ethics (3)

Choose an additional 3 credits from any of the courses listed above – OR – complete 3 hours of research credits, service project credits, or internship credits.

**Gender Studies, Minor**

**Requirements**

The Gender Studies minor allows students to study the extent to which gender and gender relations are socially influenced. Students will examine the ways in which conceptions of masculinity and femininity directly impact social and political institutions and practices, cultural expressions (such as art, communication, media, literature, music and film), law, education, business, scientific inquiry, interpersonal relations, sexuality and family. The minor broadens students’ understanding of their chosen major and career path while facilitating the recognition of gender dynamics in their own lives.

**Total Program Credits: 18**

**Matriculation Requirements:**

1. Completion of 30 hours of credit.
2. Admitted to a bachelor degree program at UVU
3. Discipline Core Requirements: 6 Credits
   - SOC 2370 Sociology of Gender 3

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Philosophy and Humanities

Elective Requirements: 12 Credits

Complete an additional 12 hours of electives. If a course that is not represented on the following list has sufficient gender related content, the student may seek approval from the Gender Studies Coordinator to have the course count toward the minor. 6 credits must be upper-division.

COMM 207G Introduction to Gender and Communication GI (3)
ENGL 217G Race Class and Gender in U S Cinema GI HH (3)
COMM 317G Ethnographic Methods for Communication Research GI (3)
ENGL 3790 Contemporary LGBTQ Literature (3)
SOC 2370 Sociology of Gender (3)
HLTH 2800 Human Sexuality SS (3)
PSY 2800 Human Sexuality SS (3)
PSY 3100 Psychology of Gender (3)
PHIL 3150 Philosophical Issues in Feminism (3)
PHIL 3160 Gender Values Knowledge and Reality (3)
HIST 320G Women in American History to 1870 GI WE (3)
HIST 321G Women in American History since 1870 GI (3)
HLTH 3240 Womens Health Issues (3)
PHIL 3450 Philosophy of Childhood (3)
ENGL 3710 Literature by Women (3)
ANTH 3365 Gender and Sexuality (3)
ANTH 4310 Kinship and the Family (3)
HLTH 440G Health and Diversity GI (3)

Graduation Requirements:
1. Overall grade point average of 2.0 (C) or above.
2. Residency hours—minimum of 12 credit hours through course attendance at UVU.

Humanities, Minor

Requirements

The discipline of humanities is the study of human intellectual and artistic creativity and what the resulting artistic forms reveal about the human experience. This field of study draws on other disciplines such as history, fine arts, literature, intellectual history, music, foreign languages, theology, and philosophy to see how the several artistic forms communicate and work together to give an in-depth record of the meaning of human life in the past and present. The discipline also emphasizes the relationship between the arts, culture, and society. A background in humanities is helpful in preparing for employment in education, business, government, civil and foreign service, tourism, and in preparation for graduate studies.

Total Program Credits: 18

Elective Requirements:

Complete 3 credits from the following:

HUM 2010 World History Through the Arts I HH (3)
or HUM 201G World History Through the Arts I HH GI (3)
or HUM 201H World History Through the Arts I HH (3)
HUM 2100 Adventures of Ideas Through 1500 HH (3)
or HUM 210H Adventures of Ideas Through 1500 HH (3)

Complete 9 credits from the following:

HUM 320R Topics in Humanities (1-3)
HUM 325R Area Studies in Humanities (3)
HUM 330R Period Studies in Humanities (3)
HUM 3800 Aesthetics (3)
HUM 400R Humanism and Posthumanism (3)
HUM 401R Forms and Genres Across the Arts (3)
HUM 414R Advanced Topics in Humanities (3)

Graduation Requirements:
1. Complete all Humanities courses with a grade of 2.0 (C) or better.

Humanities, Minor

Careers

1. Develop strong oral and written communication skills.
2. Develop discipline-specific knowledge and be able to apply that knowledge critically to solve problems using sophisticated methods of inquiry and logic.
3. Demonstrate expertise in research and scholarly activities.
4. Effectively navigate intercultural environments locally to globally.
5. Demonstrate preparation for employment or graduate education.

Related Careers

- Postsecondary Teachers, All Other
Philosophy, Minor

Requirements
Interest in studying philosophy begins with the desire to engage life’s greatest questions: finding the meaning of human existence, making sense of reality and our place in the cosmos, giving systematic form to our ethical and political intuitions, explaining the history of human ideas, and other equally significant problems. Often students wonder how the study of philosophy can provide the foundation for successful and meaningful employment. Contrary to popular belief, a philosophy major is one of the best preparations possible for careers in a large number of different areas. An article in the London Times rightly called philosophy the “ultimate ‘transferable work skill’” insofar as it prepares students for a wide array of practical services. As a group, philosophy majors consistently score at or near the top on standardized tests, gain employment on graduation at higher than average rates, rank highly in median mid-career salary, and enjoy a well-earned reputation for rigorous thinking. In fact, the Association of American Colleges and Universities tells students, “[y]our specific choice of major matters far less than the knowledge and skills you gain through all your studies and experiences in college. In terms of jobs, employers don’t hire majors. They hire individuals with potential to succeed over the long term and add value to their companies or organizations.” The study of philosophy, one of the oldest and most rigorous disciplines, provides students with critical thinking, writing, and arguing skills necessary to succeed in today’s competitive working environments.

Total Program Credits: 18

Matriculation Requirements:
1. Enrollment at Utah Valley University
2. Overall grade point average of a 2.0 (C) or better.
3. Admitted to a bachelor degree program at UVU.

Discipline Core Requirements: 18 Credits
Complete one of the following:
- PHIL 2110 Ancient Greek Philosophy HH WE (3)
- PHIL 2150 Early Modern Philosophy HH (3)

Complete 15 additional credit hours of philosophy courses (9 credit hours must be 3000 level or above; no more than 6 credit hours may be at the 1000 level; Philosophy 2050 does not count for this requirement.) 15

Religious Studies, Minor

Requirements
The Religious Studies minor fosters and facilitates an interdisciplinary approach to the academic study of religion. Due to its influential role at the local, national, and international levels, religion requires careful study utilizing academic methods employed in the examination of other cultural institutions. This includes the study of the history, theology, literature, folklore, etc., of various religions in an effort to study religion as a cultural phenomenon. The program is intended to serve our students and community by deepening our understanding of religious beliefs and practices in a spirit of open inquiry. Its aim is neither to endorse nor to undermine the claims of religion, but to create an environment in which various issues can be engaged from a variety of perspectives and methodologies.

Total Program Credits: 21

Matriculation Requirements:
1. Completion of 30 hours of credit
2. Admitted to a bachelor degree program at UVU.

Discipline Core Requirements: 12 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 1610</td>
<td>Introduction to Western Religions HH (3)</td>
</tr>
<tr>
<td>or PHIL 1620</td>
<td>Introduction to Eastern Religions HH (3)</td>
</tr>
<tr>
<td>or ANTH 3450</td>
<td>Shamanism and Indigenous Religion HH (3)</td>
</tr>
<tr>
<td>RLST 3650</td>
<td>Approaches to Religious Studies (3)</td>
</tr>
<tr>
<td>RLST 366R</td>
<td>Issues in Religious Studies (3)</td>
</tr>
<tr>
<td>PHIL 3600</td>
<td>Philosophy of Religion (3)</td>
</tr>
</tbody>
</table>

Elective Requirements: 9 Credits
Complete 9 credits of electives from the list below or as approved by advisor.

- ANTH 3400 Myth Magic and Religion (3)
- ANTH 3450 Shamanism and Indigenous Religion (3)
- ANTH 3460 Anthropology of Mormonism (3)
- COMM 3780 Mormon Media and Culture (3)
- ENGL 374G Literature of the Sacred GI (3)
- ENGL 3780 Mormon Literature (3)
- PHIL 3540 Christian Ethics (3)
- PHIL 3610 Introduction to Christian Theology (3)
- SOC 3400 Sociology of Religion (3)

Humanities, B.A.

Requirements
The discipline of humanities is the study of human intellectual and artistic creativity and what the resulting artistic forms reveal about the human experience. This field of study draws on other disciplines such as history, fine arts, literature, intellectual history, music, foreign languages, theology, and philosophy to see how the several artistic forms communicate and work together to give an in-depth record of the meaning of human life in the past and present. The discipline also emphasizes the relationship between the arts, culture, and society. A background in humanities is helpful in preparing for employment in education, business, government, civil and foreign service, tourism, and in preparation for graduate studies.

Total Program Credits: 120

General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Context CC (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
</tr>
<tr>
<td>or MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (3)</td>
</tr>
<tr>
<td>or STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
</tr>
</tbody>
</table>

Utah Valley University  Course Catalog 2023-2024
Philosophy and Humanities

Complete 9 credits of the following:

- MATH 1050 College Algebra QL (4) (recommended for Business, Education, Science, and Health Professions majors)
- MATH 1055 College Algebra with Preliminaries QL (5)
- MATH 1090 College Algebra for Business QL (3) (recommended for Business majors)

Complete one of the following: 3

- HIST 2700 US History to 1877 AS (3)
- HIST 2710 US History since 1877 AS (3)
- HIST 1700 American Civilization AS (3)
- HIST 1740 US Economic History AS (3)
- POLS 1000 American Heritage SS (3)
- POLS 1100 American National Government AS (3)

Complete the following:

- PHIL 2050 Ethics and Values IH 3
- HLTH 1100 Personal Health and Wellness TE 2
- or EXSC 1097 Fitness for Life TE (2)

Distribution Courses:

- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution 3
- Fine Arts Distribution 3
- Social/Behavioral Science 3

Discipline Core Requirements: 36 Credits

- HUM 1010 Humanities through the Arts HH 3
- or HUM 101G Humanities through the Arts HH GI (3)
- or HUM 101H Humanities Through the Arts HH (3)
- HUM 2010 World History Through the Arts I HH 3
- or HUM 201G World History Through the Arts I HH GI (3)
- or HUM 201H World History Through the Arts I HH (3)
- HUM 2020 World History Through the Arts II HH 3
- or HUM 202G World History Through the Arts II HH GI (3)
- or HUM 202H World History Through the Arts II HH (3)
- HUM 3500 Approaches to Humanities WE 3
- HUM 400R Humanism and Posthumanism 3
- HUM 4910 Humanities Capstone WE 3

Complete 3 credits of the following: 3

- HUM 2100 Adventures of Ideas Through 1500 HH (3)
- HUM 210H Adventures of Ideas Through 1500 HH (3)
- HUM 2200 Adventures of Ideas After 1500 HH (3)
- HUM 220H Adventures of Ideas After 1500 HH (3)

Complete 9 credits of the following: 9

- HUM 320R Topics in Humanities (1-3)
- HUM 325R Areas of Study in Humanities (3)
- HUM 330R Period Studies in Humanities (3)
- HUM 3800 Aesthetics (3)

Complete 6 credits of the following: 6

- HUM 401R Forms and Genres Across the Arts (3) (may be repeated for up to 6 credits)
- HUM 414R Advanced Topics in Humanities (3) (may be repeated for up to 6 credits)

Elective Requirements: 49 Credits

- One Foreign Language 16
- Any course 1000 or higher (No more than 6 total credit hours from HUM 281R and HUM 481R) 33

Graduation Requirements:

1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours--minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Completion of 40 hours of upper-division credit.
6. Completion of 16 credit hours of course work from one language to include the 1010, 1020, 2010, and 202G levels or transferred equivalents.
7. Successful completion of at least one Global/Intercultural course.

Humanities, B.A.

Careers

1. Have strong oral and written communication skills.
2. Develop expertise in research and scholarly activities.
3. Have discipline-specific knowledge and be able to apply that knowledge critically to solve problems using sophisticated methods of inquiry and logic.
4. Effectively navigate intercultural environments locally to globally.
5. Be prepared for employment or graduate education.

Related Careers

- Postsecondary Teachers, All Other

Philosophy, B.A.

Requirements

Interest in studying philosophy begins with the desire to engage life's greatest questions: finding the meaning of human existence, making sense of reality and our place in the cosmos, giving systematic form to our ethical and political intuitions, explaining the history of human ideas, and other equally significant problems. Often students wonder how the study of philosophy can provide the foundation for successful and meaningful employment. Contrary to popular belief, a philosophy major is one of the best preparations possible for careers in a large number of different areas. An article in the London Times rightly called philosophy the "ultimate 'transferable work skill'" insofar as it prepares students for a wide array of practical services. As a group, philosophy majors consistently score at or near the top on standardized tests, gain employment on graduation at higher than average rates, rank highly in median mid-career salary, and enjoy a well-earned reputation for rigorous thinking. In fact, the Association of American Colleges and Universities tells students, "[y]our specific choice of major matters far less than the knowledge and skills you gain through all your studies and experiences in college. In terms of jobs, employers don't hire majors. They hire individuals with potential to succeed over the long term and
The study of philosophy, one of the oldest and most rigorous disciplines, provides students with critical thinking, writing, and arguing skills necessary to succeed in today’s competitive working environments.

**Total Program Credits: 120**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
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<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
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**Complete one of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (recommended for Humanities or Arts majors)</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td>6</td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (recommended for Social Science majors)</td>
<td>3</td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
<td>5</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4) (recommended for Business, Education, Science, and Health Professions majors)</td>
<td>4</td>
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<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
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<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (3) (recommended for Business majors)</td>
<td>3</td>
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**Complete one of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
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<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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<tr>
<td>and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td>3</td>
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<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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</tr>
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**Complete the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
<td>2</td>
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**Distribution Courses:**

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Credit</th>
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<tbody>
<tr>
<td>Biology</td>
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<tr>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts Distribution</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
</tr>
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</table>

**Discipline Core Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2000</td>
<td>Formal Logic I</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2110</td>
<td>Ancient Greek Philosophy HH WE</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2150</td>
<td>Early Modern Philosophy HH</td>
<td>3</td>
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**Value Theory (complete 3 credits from the following):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>PHIL 290G</td>
<td>Marginalized Philosophies HH GI</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 480R</td>
<td>Philosophy Capstone Prep</td>
<td>1</td>
</tr>
<tr>
<td>PHIL 4910</td>
<td>Philosophy Research Capstone WE</td>
<td>3</td>
</tr>
</tbody>
</table>

**Complete the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 3150</td>
<td>Philosophical Issues in Feminism (3)</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 3160</td>
<td>Gender Values Knowledge and Reality (3)</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 3510</td>
<td>Business and Professional Ethics (3)</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 3520</td>
<td>Bioethics (3)</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 3530</td>
<td>Environmental Ethics (3)</td>
<td>3</td>
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<tr>
<td>PHIL 3540</td>
<td>Christian Ethics (3)</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 355G</td>
<td>Moral Philosophy GI (3)</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 4461</td>
<td>Moral Psychology (3)</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 3700</td>
<td>Social and Political Philosophy (3)</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 450R</td>
<td>Interdisciplinary Senior Ethics Seminar (3)</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 451R</td>
<td>Ethical Theory Seminar (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

**History Set (complete 3 credits from the following):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 4140</td>
<td>History of Analytic Philosophy (3)</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 4150</td>
<td>History of Continental Philosophy (3)</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 416G</td>
<td>History of Chinese Philosophy GI (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Complete 15 additional credits of Philosophy course work, at least 12 of which must be upper-division (excluding those courses taken to fulfill categories listed above):**

**Elective Requirements:**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Foreign Language</td>
<td>16</td>
</tr>
<tr>
<td>Any course 1000 or higher; 15 credits must be upper-division</td>
<td>32</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Completion of 40 hours or upper-division credit.
6. For the BA degree, completion of 16 credit hours of course work from one language to include the 1010, 1020, 2010, and 202G/2020 levels or transferred equivalents.
7. Successful completion of at least one Global/Intercultural course.

Note: It is recommended that students planning on earning a Baccalaureate Degree in Philosophy take a foreign language, preferably French or German, in their Freshman and Sophomore academic years. PHIL 120R Philosphy Forum, PHIL 295R Independent Study, PHIL 295R Directed Readings, PHIL 400R Great Philosophers, PHIL 492R Advanced Topics in Philosophy, PHIL 450R Interdisciplinary Senior Ethics Seminar, and PHIL 451R Ethical Theory Seminar can be repeated for credit.

**Philosophy, B.A.**

**Careers**

1. Ability to analyze, evaluate, and construct reasons and arguments.
**Philosophy and Humanities**

2. Ability to formulate and clearly explain ideas and arguments in writing and speech.
3. Ability to identify, understand and evaluate the basic content of some philosophical theories.
4. Express values of self-reflection, intellectual curiosity, and intellectual creativity.

**Related Careers**
- Philosophy and Religion Teachers, Postsecondary

**Philosophy, B.S.**

**Requirements**

Interest in studying philosophy begins with the desire to engage life’s greatest questions: finding the meaning of human existence, making sense of reality and our place in the cosmos, giving systematic form to our ethical and political intuitions, explaining the history of human ideas, and other equally significant problems. Often students wonder how the study of philosophy can provide the foundation for successful and meaningful employment. Contrary to popular belief, a philosophy major is one of the best preparations possible for careers in a large number of different areas. An article in the London Times rightly called philosophy the “ultimate ‘transferable work skill’” insofar as it prepares students for a wide array of practical services. As a group, philosophy majors consistently score at or near the top on standardized tests, gain employment on graduation at higher than average rates, rank highly in median mid-career salary, and enjoy a well-earned reputation for rigorous thinking. In fact, the Association of American Colleges and Universities tells students, “[y]our specific choice of major matters far less than the knowledge and skills you gain through all your studies and experiences in college. In terms of jobs, employers don’t hire majors. They hire individuals with potential to succeed over the long term and add value to their companies or organizations.” The study of philosophy, one of the oldest and most rigorous disciplines, provides students with critical thinking, writing, and arguing skills necessary to succeed in today’s competitive working environments.

**Total Program Credits: 120**

| General Education Requirements: | 35 Credits |
| ENGL 1010 | Introduction to Academic Writing CC 3 |
| or | ENGH 1005 Literacies and Composition Across Contexts CC (5) |
| or | ENGL 2010 Intermediate Academic Writing CC 3 |
| Complete one of the following: | 3 |
| MAT 1030 | Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors) |
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- PHIL 3530 Environmental Ethics (3)
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**History Set (complete 3 credits from the following):**
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- PHIL 4150 History of Continental Philosophy (3)
- PHIL 416G History of Chinese Philosophy GI (3)

**Complete 15 additional credits of Philosophy course work, at least 12 of which must be upper-division (excluding those taken to fulfill categories listed above):**

**Elective Requirements:**
- 48 Credits
Graduation Requirements:

1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
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Philosophy, B.S.

Careers

1. Ability to analyze, evaluate, and construct reasons and arguments.
2. Ability to formulate and clearly explain ideas and arguments in writing and speech.
3. Ability to identify, understand and evaluate the basic content of some philosophical theories.
4. Express values of self-reflection, intellectual curiosity, and intellectual creativity.

Related Careers

- Philosophy and Religion Teachers, Postsecondary
Physician Assistant Graduate Program

Physician Assistant Graduate Program

The Physician Assistant Graduate Program is in the College of Health and Public Service. To find the most up-to-date information, including Program Learning Outcomes for the Physician Assistant Graduate Program, visit their website.

Physician Assistant Graduate Program

Course Descriptions

Physician Assistant Studies ................................................................. 797

Degrees & Programs

Master of Physician Assistant Studies, M.P.A.S.

Requirements

The UVU PA Program is a full-time, 28-month, year-round graduate program, consisting of 95 credit hours completed over 7 semesters. The curriculum structure is specially designed to prepare students with the knowledge, skills, and confidence to become competent PAs who demonstrate interpersonal and communication skills that result in more effective and compassionate patient care.

All MPAS didactic courses are offered and must be fulfilled on location at UVU west campus. There are no provisions for substituting or waiving effective courses.

Total Program Credits: 95

Matriculation Requirements:

1. Acceptance into the UVU Physician Assistant Program. Acceptance is determined through a competitive application process. Contact the Director of Admissions or reference the UVU Physician Assistant Program website for current cohort information. Successful applicants are awarded a seat in a specific cohort.

2. Completion of a bachelor’s degree from a regionally accredited institution of higher learning in the United States or Canada prior to application submission.

3. Prerequisite coursework must be completed prior to application submission. Courses must have a letter grade of a C or better. AP/CLEP courses are not accepted toward any of the prerequisite courses.

PREREQUISITE COURSES

1. a. Human Anatomy with Lab: 4 semester hours required, completed within seven years of the application deadline.
   b. Human Physiology with Lab: 4 semester hours required, completed within seven years of the application deadline.
   c. Chemistry with Lab: 8 semester hours required
   d. Biology with Lab: 4 semester hours required
   e. Microbiology with Lab: 4 semester hours required
   f. Statistics: 3 semester hours required
2. A minimum of 2,000 hours of direct patient care is required for application consideration.
3. Complete the UVU Graduate Studies Application and pay the required application fee.

6. English Language Proficiency (TOEFL) scores will be required for all students whose native language is not English.

7. Complete an interview day with the program.

8. Students who are accepted into the program must pay a non-refundable seat deposit by the required deadline.

9. Immunizations and Health Requirements. Students are required to have up to date immunizations and TB testing based on current Center for Disease Control recommendation and Utah state guidelines. Students must have a health clearance form completed by a qualified medical provider verifying the ability to perform the essential functions of a physician assistant (see technical standard requirements in the student handbook). Provide proof of current health insurance coverage.

Discipline Core Requirements: 95 Credits

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
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<td>PAS 6701</td>
<td>Human Anatomy for the Physician Assistant I</td>
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</tr>
<tr>
<td>PAS 6702</td>
<td>Human Anatomy for the Physician Assistant II</td>
<td>1</td>
</tr>
<tr>
<td>PAS 6703</td>
<td>Human Anatomy for the Physician Assistant III</td>
<td>1</td>
</tr>
<tr>
<td>PAS 6711</td>
<td>Physiology/Pathophysiology for the Physician Assistant I</td>
<td>2</td>
</tr>
<tr>
<td>PAS 6712</td>
<td>Physiology/Pathophysiology for the Physician Assistant II</td>
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<td>PAS 6713</td>
<td>Physiology/Pathophysiology for the Physician Assistant III</td>
<td>2</td>
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<td>PAS 6721</td>
<td>Clinical Medicine I</td>
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<td>PAS 6722</td>
<td>Clinical Medicine II</td>
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<td>PAS 6723</td>
<td>Clinical Medicine III</td>
<td>3</td>
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<td>PAS 6724</td>
<td>Clinical Medicine IV</td>
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<tr>
<td>PAS 6731</td>
<td>Pharmacology/Pharmacotherapy for the Physician Assistant I</td>
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<td>PAS 6732</td>
<td>Pharmacology/Pharmacotherapy for the Physician Assistant II</td>
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<td>PAS 6733</td>
<td>Pharmacology/Pharmacotherapy for the Physician Assistant III</td>
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<td>PAS 6734</td>
<td>Pharmacology/Pharmacotherapy for the Physician Assistant IV</td>
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<td>PAS 6741</td>
<td>Clinical Skills I</td>
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<td>PAS 6742</td>
<td>Clinical Skills II</td>
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<tr>
<td>PAS 6743</td>
<td>Clinical Skills III</td>
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<td>PAS 6751</td>
<td>Clinical Decision Making I</td>
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<td>Clinical Decision Making III</td>
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<td>PAS 6761</td>
<td>Behavioral Medicine</td>
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<td>PAS 6762</td>
<td>Personal and Clinical Leadership</td>
<td>3</td>
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<td>PAS 6771</td>
<td>Physician Assistant Profession</td>
<td>2</td>
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<td>PAS 6772</td>
<td>Special Populations</td>
<td>3</td>
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<td>PAS 6773</td>
<td>Health Promotion and Disease Prevention</td>
<td>3</td>
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<tr>
<td>PAS 6774</td>
<td>Supplemental Topics in Medicine</td>
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<tr>
<td>PAS 6775</td>
<td>Health Care Delivery Systems and Medical Ethics</td>
<td>2</td>
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</table>
Graduation Requirements:

1. A minimum cumulative GPA of 3.0 must be maintained within program.
2. 100% of the course credits required for the Master of Physician Assistant Studies (MPAS) degree must be completed at Utah Valley University. No transfer credits will be accepted.
3. Student must pass the PA Program Summative Exam with a grade of 80% or better in order to graduate. The Summative Exam is administered in the final semester of the PA Program.

Master of Physician Assistant Studies, M.P.A.S.

Careers

1. Demonstrate knowledge about established and evolving biomedical and clinical sciences and the application of this knowledge to patient care.
2. Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
3. Provide person-centered care that includes patient- and setting-specific assessment, evaluation, and management and healthcare that is evidence-based, supports patient safety, and advances health equity.
4. Demonstrate the ability to engage with a variety of other healthcare professionals in a manner that optimizes safe, effective, patient- and population-centered care.
5. Demonstrate a commitment to practicing medicine in ethically and legally appropriate ways and emphasizing professional maturity and accountability for delivering safe and quality care to patients and populations.
6. Demonstrate the ability to learn and implement quality improvement practices by engaging in critical analysis of one’s own practice experience, the medical literature, and other information resources for the purposes of self-evaluation, lifelong learning, and practice improvement.
7. Recognize and understand the influences of the ecosystem of person, family, population, environment, and policy on the health of patients and integrate knowledge of these determinants of health into patient care decisions.

Related Careers

- Health Specialties Teachers, Postsecondary
- Physician Assistants
- Physician Assistants
Physics

The Physics department is in the College of Science. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Physics department, visit their website.

Requirements

Physics, Minor

Degrees & Programs

Physics, Minor

Requirements

A minor in physics represents a substantial investment in mastering the basics of physics and gaining suitable problem solving skills that may then be applied to other disciplines.

Total Program Credits: 20

Matriculation Requirements:

1. Admitted to a bachelor degree program at UVU.

Discipline Core Requirements: 20 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 2210</td>
<td>Physics for Scientists and Engineers I PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2215</td>
<td>Physics for Scientists and Engineers I Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2220</td>
<td>Physics for Scientists and Engineers II PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2225</td>
<td>Physics for Scientists and Engineers II Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. A minimum grade of "C" must be earned in all minor courses.

Physics, Minor

Careers

1. Demonstrate understanding of how science and physics work in practice by correctly using evidence, experiment and observation, interpretation, physical concepts, etc.
2. Apply fundamental physical concepts including conservation laws, forces, fields, energy, optics, thermal and statistical physics, relativity, and quantum mechanics.
3. Use mathematics and mathematical models correctly to solve physics problems.
4. Follow practices necessary for safely using laboratory equipment.
5. Demonstrate understanding of the role of computation in physics and appropriate computer skills.
6. Communicate effectively about physics in writing and in presentations, in both formal and informal settings.
7. Demonstrate physics research skills and use ethical research practices.

**Related Careers**
- Natural Sciences Managers
- Physicists
- Physics Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education

**Physics Education, B.S.**

**Requirements**
Prepares the student to teach high school physics and AP physics. The program allows for those interested to supplement their studies with extra courses in physics or other science through elective upper division credit. A seminar course provides the student with exposure to careers in physics.

**Total Program Credits: 120**

**Matriculation Requirements:**
1. Students are admitted directly to the Baccalaureate degree program in Physics Education upon acceptance to the Secondary Education Program.
2. Students must obtain the departmental Advisor’s signature on an approved program plan prior to enrollment in their second semester of study.

**Secondary Education Requirements:**
1. ENGL and MATH QL courses must have a grade C or higher.
2. GPA of 3.0 or higher with no grade lower than a C in content area courses.
3. Completion of all General Education requirements and 70% of content area courses.
4. Pass LiveScan Criminal Background Check.

**General Education Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1210</td>
<td>Calculus I QL</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>PHYS 1100 Introductory Math Techniques for Physics and Engineering</td>
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</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
<td></td>
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Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>EXSC 1097 Fitness for Life TE</td>
<td>2</td>
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</table>

**Distribution Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
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**Course Catalog 2023-2024**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1210</td>
<td>Principles of Chemistry I PP (To be taken with CHEM 1215)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1220</td>
<td>Principles of Chemistry II PP (To be taken with CHEM 1225)</td>
<td>4</td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td></td>
<td>3</td>
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</table>

**Discipline Core Requirements:** 77 Credits

Must be completed with a grade B- or higher.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1215</td>
<td>Principles of Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1225</td>
<td>Principles of Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>HIST 4320</td>
<td>History of Scientific Thought</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2210</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2210</td>
<td>Physics for Scientists and Engineers I PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2215</td>
<td>Physics for Scientists and Engineers I Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2220</td>
<td>Physics for Scientists and Engineers II PP</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2225</td>
<td>Physics for Scientists and Engineers II Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 3010</td>
<td>Physics Experiments for Secondary Education</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 3110</td>
<td>Modern Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3115</td>
<td>Introduction to Experimental Physics I WE</td>
<td>2</td>
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</tbody>
</table>

**Education Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EDSC 1010</td>
<td>Introduction to Education</td>
<td>2</td>
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<tr>
<td>EDSC 3000</td>
<td>Educational Psychology</td>
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<tr>
<td>EDSC 325G</td>
<td>Equitable Technology Integration GI</td>
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<tr>
<td>EDSC 4200</td>
<td>Classroom Management I</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4250</td>
<td>Classroom Management II</td>
<td>2</td>
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<tr>
<td>EDSC 4440</td>
<td>Content Area Literacies</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 445G</td>
<td>Multicultural Instruction ESL GI</td>
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</tr>
<tr>
<td>EDSC 455G</td>
<td>Secondary Curriculum Instruction and Assessment GI</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 4850</td>
<td>Student Teaching Secondary</td>
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</tr>
<tr>
<td>EDSC 4990</td>
<td>Teacher Performance Assessment Project WE</td>
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<tr>
<td>EDSP 340G</td>
<td>Exceptional Students GI</td>
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</table>

Complete the following set:

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<tr>
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<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCIE 4210</td>
<td>Science Teaching Methods I</td>
<td>3</td>
</tr>
<tr>
<td>SCIE 4220</td>
<td>Teaching Methods in Science II</td>
<td>3</td>
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</table>

**PHYSICS:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 490R</td>
<td>Seminar (must be repeated two times)</td>
<td>1</td>
</tr>
</tbody>
</table>

Complete 9 credits from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ASTR 3050</td>
<td>Astrophysics I (3)</td>
<td></td>
</tr>
<tr>
<td>ASTR 3060</td>
<td>Astrophysics II (3)</td>
<td></td>
</tr>
</tbody>
</table>
Physics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1100</td>
<td>Introductory Math Techniques for Physics and Engineering (3)</td>
</tr>
<tr>
<td>PHYS 2500</td>
<td>Elementary Fluids and Thermal Physics (3)</td>
</tr>
<tr>
<td>PHYS 3120</td>
<td>Modern Physics II (3)</td>
</tr>
<tr>
<td>PHYS 3125</td>
<td>Introduction to Experimental Physics II WE (2)</td>
</tr>
<tr>
<td>PHYS 3230</td>
<td>Principles of Electronics for the Physical Sciences (3)</td>
</tr>
<tr>
<td>PHYS 3300</td>
<td>Mathematical Physics (3)</td>
</tr>
<tr>
<td>PHYS 3400</td>
<td>Classical Mechanics (3)</td>
</tr>
<tr>
<td>PHYS 3500</td>
<td>Thermodynamics (3)</td>
</tr>
<tr>
<td>PHYS 3800</td>
<td>Energy use on Earth (3)</td>
</tr>
<tr>
<td>PHYS 4700</td>
<td>Acoustics (3)</td>
</tr>
</tbody>
</table>

Elective Requirements: 5 Credits

Complete 5 credits of upper division electives. 5

Graduation Requirements:

1. Completion of a minimum of 120 semester credits with a minimum of 40 upper-division credits.
2. Overall Grade of 3.0 (B) or above with no grade lower than a C or better in major required content courses and no grade lower than a B- in Licensure and Methods courses.
3. Residency hours – minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. A minimum of 52 credit hours must be in the major with a minimum of 20 credits taken at UVU. A minimum of 24 chemistry and physics credits must be upper-division.
6. Successful completion of at least one Global/Intercultural course.

Physics Education, B.S.

Careers

1. Demonstrate how to teach about how science and physics work in practice by correctly using evidence, experiment and observation, interpretation, physical concepts, etc.
2. Learn to apply and teach about fundamental physical concepts including conservation laws, forces, fields, energy, optics, thermal and statistical physics, relativity, and quantum mechanics.
3. Use mathematics and mathematical models correctly to solve physics problems.
4. Follow practices necessary for safely using laboratory equipment.
5. Demonstrate understanding of the role of computation in physics and appropriate computer skills.
6. Communicate effectively about physics in writing and in presentations, in both formal and informal settings.
7. Demonstrate physics research skills and use ethical research practices.

Related Careers

- Physics Teachers, Postsecondary
- Education Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education

Physics, B.S.

Requirements

A Bachelor in Physics provides the student with an understanding of the laws of nature and with the experimental and analytical techniques necessary to describe and solve problems in physical systems. The degree prepares students for further graduate study in physics, astronomy, geophysics, medicine, engineering or many other diverse fields. Bachelor's recipients also find employment in a variety of industries and careers, including engineering, education, computer science, programming, electronics, energy and the environment, geology, medical physics, optics, finance, law and more.

Total Program Credits: 120

Matriculation Requirements:

1. Advisor approval.
2. Completion of PHYS 2210 and MATH 1210 with a C or higher.

General Education Requirements: 37 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
</tr>
<tr>
<td>MATH 1210</td>
<td>Calculus I QL</td>
</tr>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS(3)</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
</tr>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE</td>
</tr>
</tbody>
</table>

Distribution Courses:

- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution 3
- Fine Arts Distribution 3
- Social/Behavioral Science 3

Discipline Core Requirements: 63 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 2210</td>
<td>Physics for Scientists and Engineers I PP</td>
</tr>
<tr>
<td>PHYS 2215</td>
<td>Physics for Scientists and Engineers I Lab</td>
</tr>
<tr>
<td>PHYS 2220</td>
<td>Physics for Scientists and Engineers II PP</td>
</tr>
<tr>
<td>PHYS 2225</td>
<td>Physics for Scientists and Engineers II Lab</td>
</tr>
<tr>
<td>PHYS 3110</td>
<td>Modern Physics I</td>
</tr>
<tr>
<td>PHYS 3115</td>
<td>Introduction to Experimental Physics I WE</td>
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</tbody>
</table>

460 Course Catalog 2023-2024 Utah Valley University
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 3120</td>
<td>Modern Physics II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3125</td>
<td>Introduction to Experimental Physics II WE</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 3230</td>
<td>Principles of Electronics for the Physical Sciences</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3300</td>
<td>Mathematical Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3330</td>
<td>Computational Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3400</td>
<td>Classical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3500</td>
<td>Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3600</td>
<td>Optics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4210</td>
<td>Advanced Experimental Techniques</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4410</td>
<td>Electrostatics and Magnetism</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4420</td>
<td>Electrodynamics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4510</td>
<td>Quantum Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 490R</td>
<td>Seminar (0.5 credits, taken 4 times)</td>
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</tr>
<tr>
<td>MATH 1220</td>
<td>Calculus II</td>
<td>4</td>
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<tr>
<td>MATH 2210</td>
<td>Calculus III</td>
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</tr>
<tr>
<td>MATH 2280</td>
<td>Ordinary Differential Equations</td>
<td>3</td>
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</table>

**Elective Requirements:** 21 Credits

Complete 21 credits from the following courses. The selection of elective coursework should present a coherent theme such as engineering physics, medical physics, nuclear physics, geophysics, computational physics, etc. (Consult Advisor or Department Chair for assistance or to consider possible course substitutions.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ASTR 2040</td>
<td>Intermediate Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 3050</td>
<td>Astrophysics I</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 3060</td>
<td>Astrophysics II</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 4100</td>
<td>Brown Dwarfs and Exoplanets</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 4350</td>
<td>Research Methods in Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1100</td>
<td>Introductory Math Techniques for Physics and Engineering</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2500</td>
<td>Elementary Fluids and Thermal Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2700</td>
<td>Biophysics (undefined)</td>
<td></td>
</tr>
<tr>
<td>PHYS 2800</td>
<td>Introduction to Materials Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3310</td>
<td>Advanced Mathematical Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3350</td>
<td>Applications of LabVIEW in Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3700</td>
<td>Particle Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3800</td>
<td>Energy use on Earth</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4150</td>
<td>Medical Physics</td>
<td>3</td>
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<tr>
<td>PHYS 4250</td>
<td>Nuclear Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4350</td>
<td>Research Methods in Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4520</td>
<td>Quantum Mechanics II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4700</td>
<td>Acoustics (3)</td>
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<tr>
<td>PHYS 4800</td>
<td>Solid State Physics (3)</td>
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<tr>
<td>PHYS 481R</td>
<td>Physics Internship (1-4) (no more than 4 hours counted toward degree)</td>
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<tr>
<td>PHYS 489R</td>
<td>Undergraduate Research in Physics (1-3) (no more than 9 hours counted toward degree)</td>
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<td>PHYS 492R</td>
<td>Topics in Physics (3) (may only be taken once toward degree credit)</td>
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<tr>
<td>PHYS 495R</td>
<td>Independent Readings (1-3) (no more than 3 hours counted toward degree)</td>
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<td>PHYS 499A</td>
<td>Senior Project (2)</td>
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<td>PHYS 499B</td>
<td>Senior Thesis (1)</td>
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See Physics Department academic advisor for possibly more complete and up to date list.

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM 1210</td>
<td>Principles of Chemistry I PP (4)</td>
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<tr>
<td>CHEM 1215</td>
<td>Principles of Chemistry I Laboratory (1)</td>
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<tr>
<td>CHEM 1220</td>
<td>Principles of Chemistry II PP (4)</td>
<td>2</td>
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<tr>
<td>CHEM 1225</td>
<td>Principles of Chemistry II Laboratory (1)</td>
<td></td>
</tr>
<tr>
<td>METO 3100</td>
<td>Climate and the Earth System</td>
<td>3</td>
</tr>
</tbody>
</table>

**Notes:**
1. Suggested elective option for the student intent on continuing physics studies in graduate school.
2. Strongly recommended for inclusion in any elective option.

**Graduation Requirements:**
1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a "C" in core and elective requirement courses.
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

**Physics, B.S. Careers**
1. Demonstrate understanding of how science and physics work in practice by correctly using evidence, experiment and observation, interpretation, physical concepts, etc.
2. Apply fundamental physical concepts including conservation laws, forces, fields, energy, optics, thermal and statistical physics, relativity, and quantum mechanics.
3. Use mathematics and mathematical models correctly to solve physics problems.
4. Follow practices necessary for safely using laboratory equipment.
5. Demonstrate understanding of the role of computation in physics and appropriate computer skills.
Physics

6. Communicate effectively about physics in writing and in presentations, in both formal and informal settings.
7. Demonstrate physics research skills and use ethical research practices.

Related Careers

- Natural Sciences Managers
- Physicists
- Physics Teachers, Postsecondary
- Secondary School Teachers, Except Special and Career/Technical Education
Public Health

The Public Health department is in the College of Health and Public Services. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Public Health department, visit their website.

Public Health department

DEPARTMENT CHAIR
BARTHEL, Brian R. Associate Professor

FACULTY
BARBER, Melinda Assistant Professor
BARTHEL, Brian R. Associate Professor
BEMEL, James Associate Professor
COX, Mckelle Lecturer
FLINT, Matthew Associate Professor
HALL, Sarah M. Assistant Professor
LARSEN, Merilee Associate Professor
MURPHY, Lynley Associate Professor
THIESSET, Heather Assistant Professor
WALSH, Robert O. Professor

Course Descriptions

Community Health.......................... 727
Nutrition........................................ 796

Degrees & Programs

Public Health, A.S.

Requirements

Students in the Department of Public Health may receive an Associate in Science in Public Health. The AS degree is a stepping stone to a Bachelor of Science in Public Health. A minor in Public Health is available as well as an endorsement for School Health Education.

Total Program Credits: 60

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS</td>
<td>3</td>
</tr>
<tr>
<td>and</td>
<td>HIST 2710</td>
<td></td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS</td>
<td>3</td>
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Complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
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<tr>
<td>or</td>
<td>EXSC 1097</td>
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Distribution Courses

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1010</td>
<td>General Biology BB</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>BIOL 1610</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1610</td>
<td>College Biology I BB</td>
<td>4</td>
</tr>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUTR 1020</td>
<td>Foundations of Human Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 2600</td>
<td>Drugs Behavior and Society SS</td>
<td>3</td>
</tr>
<tr>
<td>ZOOL 1090</td>
<td>Introduction to Human Anatomy and Physiology BB</td>
<td>3</td>
</tr>
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</table>

Complete 6 credits of the following

<table>
<thead>
<tr>
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<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>HLTH 1200</td>
<td>First Aid (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 2400</td>
<td>Concepts of Stress Management (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 2800</td>
<td>Human Sexuality SS (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete 10 additional credits of any course level 1000 or higher 10

Notes:
1. Students majoring in Healthcare Administration must complete one of the following: MATH 1050, MATH 1055, or MATH 1090. Students majoring in Public Health must complete one of the following: STAT 1040, STAT 1045, MATH 1050, or MATH 1055.

Graduation Requirements:
1. Completion of a minimum of 60 semester credits.
2. Overall GPA of 2.50 or above with no grade lower than a C- in core courses.
3. Residency hours-- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Public Health, A.S.

Careers

1. Describe the role and function of basic nutrients in the human body.
2. Discuss categories of drugs and their effects on the body, risk factors for drug use, drug dependence, and strengths and weaknesses of drug prevention programs.
3. Describe basic principles of anatomy including anatomic nomenclature, function of organs, and structure of organ systems.

**Related Careers**

- Medical and Health Services Managers
- Community Health Workers

**Health and Wellness Coaching, Certificate of Proficiency**

**Requirements**

Health and wellness coaching professionals work in government, private, and nonprofit sectors as expert facilitators of sustainable change in mindset and behaviors. Health and wellness coaches are equipped with evidence-based coaching tools to help individuals improve and maintain healthy lifestyles. Students will be prepared to assess, plan, and help individuals implement health and nutrition lifestyle changes. The curriculum provides a solid foundation in essential theories of coaching science and the application of coaching skills, as well as how to assist clients with wellness mapping and practical hands-on mentoring. Employment settings include healthcare facilities, hospitals, state and local health departments, businesses, worksite wellness programs, and a variety of nonprofit organizations. The wellness coaching certificate program at UVU will stack into both the associate and bachelor degrees in Public Health.

**Total Program Credits: 16**

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>17 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 1100 Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 2450 Health Coaching</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 2550 Health Coaching II</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 2750 Supervised Coaching</td>
<td>1</td>
</tr>
<tr>
<td>HLTH 282R Coaching Internship</td>
<td>2</td>
</tr>
<tr>
<td>HWC 2000 Lifestyle Medicine for Health Coaching</td>
<td>2</td>
</tr>
<tr>
<td>Complete three credits from the following elective options</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 2000 Body Image and Weight Management (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 1055 Pilates I CoreMax Training (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 1057 Power Yoga (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 1405 Safety Awareness and Self Defense (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 1500 Mindfulness/Meditation/Breathwork (3)</td>
<td></td>
</tr>
<tr>
<td>NUTR 1020 Foundations of Human Nutrition (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of the program with the required in-person components per NBHWC.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours -- minimum of 12 credit hours through course attendance at UVU.

**Health and Wellness Coaching, Certificate of Proficiency**

**Careers**

1. Facilitate wellness behavior change by empowering the client to self-discover values, resources, and strategies that are individualized and meaningful.
2. Identify risk factors for chronic disease and recommend lifestyle changes to optimize health and wellness.
3. Use empathy and emotional availability to create a positive rapport with clients and ensure their wellness needs are being met.
4. Develop client wellness plans while considering personal preference and goals.
5. Demonstrate best practices for communication such as active listening, writing for clarity, and responding professionally to inquiries.

**Related Careers**

- Health Educators
- Community Health Workers

**Health, Certificate of Proficiency**

**Requirements**

The Health certificate is available to all UVU students with a particular focus designed to provide high school students an opportunity to obtain a certificate of proficiency in a Career and Technical Education (CTE) field while still enrolled in high school and stack into certificate, associate and bachelor degrees at UVU. This certificate is available from the University for college students/adults looking for entry-level skills leading to further academic advancement and learn more about the Health field.

**Total Program Credits: 16**

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>17 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td>5</td>
</tr>
<tr>
<td>PSY 1100 Human Development Life Span SS</td>
<td>3</td>
</tr>
<tr>
<td>or PSY 1010 General Psychology SS (3)</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 1020 Foundations of Human Nutrition</td>
<td></td>
</tr>
<tr>
<td>BIOL 1610 College Biology I BB</td>
<td>4</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3)</td>
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</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)</td>
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</tr>
<tr>
<td>MATH 1050 College Algebra QL (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 16 semester credits.
2. Overall grade point average of 2.5 or above.
3. All core courses must be completed with grade ‘C’ or higher.
Health, Certificate of Proficiency

Careers

1. Describe key terms and concepts currently used in the areas of mathematics, biology, human development and nutrition through writing and other assignments.
2. Discuss the relevance of biology, human development and nutrition to concerns of society through writing and other assignments.
3. Apply the process of science by generating hypotheses, critically evaluating data, and solving problems.

Related Careers

• Health Educators
• Community Health Workers

Public and Community Health, Certificate of Proficiency

Requirements

The Certificate of Proficiency in Public and Community Health is available for all UVU students with a particular focus designed to provide high school students an opportunity to obtain a stackable certificate of proficiency with an emphasis in career and technical education while still enrolled in high school. This certificate is available from the University for college students/adults looking for basic entry-level skills leading to further academic advancement and learn more about Public and Community Health as a career field.

Total Program Credits: 15

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
</tr>
<tr>
<td>HLTH 1200</td>
<td>First Aid</td>
</tr>
<tr>
<td>NUTR 1020</td>
<td>Foundations of Human Nutrition</td>
</tr>
<tr>
<td>BIOL 1010</td>
<td>General Biology BB</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (3)</td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 15 semester credits.
2. Overall grade point average of 2.5 or above.
3. All core courses must be completed with grade ‘C’ or higher.

School Health Education, Minor

Requirements

Students MUST have a Secondary Education degree to certify with the School Health Education Endorsement.

Total Program Credits: 26

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Must be accepted into a Secondary Education major program.</td>
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<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>26 Credits</th>
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</thead>
<tbody>
<tr>
<td>NUTR 1020</td>
<td>Foundations of Human Nutrition</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
</tr>
<tr>
<td>or</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 2900</td>
<td>Health Education for Elementary Teachers (2)</td>
</tr>
<tr>
<td>HLTH 1200</td>
<td>First Aid</td>
</tr>
<tr>
<td>HLTH 2400</td>
<td>Concepts of Stress Management</td>
</tr>
<tr>
<td>HLTH 2600</td>
<td>Drugs Behavior and Society SS</td>
</tr>
<tr>
<td>HLTH 2800</td>
<td>Human Sexuality SS</td>
</tr>
<tr>
<td>HLTH 3220</td>
<td>Foundations of Health Education</td>
</tr>
<tr>
<td>HLTH 4100</td>
<td>Health Education Curriculum for Secondary Teachers</td>
</tr>
<tr>
<td>HLTH 4200</td>
<td>Health Education Teaching Methods WE</td>
</tr>
</tbody>
</table>

Graduation Requirements

1. GPA of 3.0 or higher with no grade lower than a C in discipline core courses.

Public Health, B.S.

Requirements

The Bachelor of Science in Public Health prepares students to serve as effective and competent public health professionals. Public health graduates are equipped with knowledge to help individuals, families, and communities improve and maintain healthy lifestyles. Students will be prepared to assess, plan, implement, manage, and evaluate public health programs. The curriculum provides a solid foundation in health behavior theory, data collection and analysis, social determinants of health, communication and marketing, policy and advocacy, and ethics. Students will be prepared to sit for the Certified Health Education Specialist exam. Public health professionals work in government, private, and nonprofit sectors. Employment settings include healthcare facilities, hospitals, state and local health departments, businesses, worksite wellness programs, schools, universities, and a variety of nonprofit organizations. The public health program at UVU includes 116 credits of coursework and four credits of internship experience for a total of 120 credit hours.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
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<tbody>
<tr>
<td>In order to be matriculated into the 'Public Health' program, students must:</td>
</tr>
</tbody>
</table>

Utah Valley University Course Catalog 2023-2024 465
Public Health

1. Complete ENGL 1010 or ENGH 1005, ENGL 2010 or BIOL 1010 or BIOL 1610; ZOOL 1090; and HLTH 3200 and MATH 1050 or 1055 or STAT 1040 or 1045 with a minimum grade of C- or higher (with the exception of ENGH 1005 requires a grade of C or higher) and a GPA of 2.5 in these courses.

2. Have an overall GPA of 2.50.

Students will be required to complete the catalog requirements in effect for the semester in which matriculation is granted.

General Education Requirements:

35 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Context CC (5)</td>
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</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
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Complete one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
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</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
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</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
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<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
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<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td></td>
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<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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Complete the following:

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<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
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</table>

Distribution Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1010</td>
<td>General Biology BB</td>
<td>3</td>
</tr>
<tr>
<td>or BIOL 1610</td>
<td>College Biology I BB (4)</td>
<td></td>
</tr>
<tr>
<td>Physical Science</td>
<td></td>
<td>3</td>
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<tr>
<td>Additional Biology or Physical Science</td>
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<td>3</td>
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<tr>
<td>Humanities Distribution</td>
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<td>3</td>
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<tr>
<td>Fine Arts Distribution</td>
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<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science¹</td>
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Discipline Core Requirements:

59 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ZOOL 1090</td>
<td>Introduction to Human Anatomy and Physiology BB</td>
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<tr>
<td>NUTR 1020</td>
<td>Foundations of Human Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 2600</td>
<td>Drugs Behavior and Society SS</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 3200</td>
<td>Principles of Community Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 3220</td>
<td>Foundations of Health Education</td>
<td>3</td>
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<tr>
<td>HLTH 3230</td>
<td>Professional Development</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 3260</td>
<td>Theory-Based Approaches to Modifying Health Behavior</td>
<td>3</td>
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<tr>
<td>HLTH 3400</td>
<td>Human Diseases</td>
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<tr>
<td>HLTH 3450</td>
<td>Public Health and the Environment</td>
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</table>

Public Health Lower Division Electives - Choose 6 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NUTR 2020</td>
<td>Nutrition Through the Life Cycle BB (3)</td>
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</tr>
<tr>
<td>PSY 2300</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1200</td>
<td>First Aid (3)</td>
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<tr>
<td>HLTH 1300</td>
<td>Medical Terminology I (3)</td>
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</tr>
<tr>
<td>HLTH 2000</td>
<td>Body Image Weight Management (3)</td>
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</tr>
<tr>
<td>HLTH 2200</td>
<td>Introduction to Health Professions (3)</td>
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</tr>
<tr>
<td>HLTH 2400</td>
<td>Concepts of Stress Management (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 2800</td>
<td>Human Sexuality SS (3)</td>
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</tbody>
</table>

Public Health Upper Division Electives - Choose 6 credits

<table>
<thead>
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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HLTH 3000</td>
<td>Health Concepts of Death and Dying (3)</td>
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<tr>
<td>HLTH 3240</td>
<td>Womens Health Issues (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 3300</td>
<td>Health Promotion for Older Adults (3)</td>
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</tr>
<tr>
<td>HLTH 4500</td>
<td>Healthcare Administration (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 4720</td>
<td>CHES Preparation (1)</td>
<td></td>
</tr>
<tr>
<td>HLTH 490R</td>
<td>Special Topics in Public Health (1)</td>
<td></td>
</tr>
</tbody>
</table>

Additional Elective Courses

14

Any course 1000 or higher (may include courses counting toward a minor)

Notes:

1. HLTH 2800 Human Sexuality SS recommended.

Graduation Requirements:

1. Completion of a minimum of 120 semester credits with a minimum of 40 upper-division credits. A minimum of at least 10 hours earned in the last 45 hours must be earned at UVU.
2. Overall GPA of 2.50 or higher.
3. A combined GPA of 2.75 or higher for all discipline core requirements with no discipline core course falling below a C-.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.
Public Health, B.S.

Careers

Program Learning Outcomes
1. Communicate public health information, in both oral and written forms and through a variety of media, to diverse audiences.
2. Locate, use, evaluate, and synthesize public health information.
3. Assess individual and community needs at the entry level.
4. Plan and implement health education strategies, interventions and programs at the entry level.
5. Conduct evaluations and research related to health education at the entry level.

Related Careers
• Medical and Health Services Managers
• Health Educators
• Community Health Workers
• Health Specialties Teachers, Postsecondary

School Health Education, B.S.

Requirements
The Bachelor of Science in School Health Education prepares students to serve as competent and effective school health educators. School Health Education graduates are equipped with knowledge and skills to help youth develop, improve, and maintain healthy lifestyles. School Health students will be prepared to plan, create, implement and assess health lesson plans in a school setting as they pertain to the State of Utah Health Curriculum. The School Health Education program at UVU provides a solid foundation in health knowledge, skills, and curriculum through various required courses, including: personal health and wellness, mental & emotional health, nutrition, substance abuse, human diseases, human development, human sexuality, first aid and personal safety. In addition, School Health students will learn and practice skills to help them with the Educative Teacher Performance assessment (edTPA). School Health Educators work in secondary education school settings which are in the public, private, or charter sectors.

Total Program Credits: 120

Matriculation Requirements:
1. ENGL and MATH QL courses must have a grade C or higher.
2. GPA of 3.0 or higher with no grade lower than C in discipline core course.
3. Completion of all General Education requirements and 70% of content area courses.
4. Pass LiveScan Criminal Background Check.

General Education Requirements: 36 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>ENGH 1005</td>
<td>Literacies and Composition Across Context CC</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
<td>4</td>
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<tr>
<td>or MATH 1055</td>
<td>College Algebra with Preliminaries QL</td>
<td>5</td>
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Complete one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
</tr>
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</table>

Distribution Courses

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
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<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
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Discipline Core Requirements: 74 Credits

<table>
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<tr>
<th>Course</th>
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<tr>
<td>HLTH 1200</td>
<td>First Aid</td>
<td>3</td>
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<tr>
<td>HLTH 2400</td>
<td>Concepts of Stress Management</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 2600</td>
<td>Drugs Behavior and Society SS</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 2800</td>
<td>Human Sexuality SS</td>
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<tr>
<td>HLTH 3200</td>
<td>Principles of Community Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 3220</td>
<td>Foundations of Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 3230</td>
<td>Professional Development</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 3260</td>
<td>Theory-Based Approaches to Modifying Health Behavior</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 3400</td>
<td>Human Diseases</td>
<td>3</td>
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<tr>
<td>HLTH 3450</td>
<td>Public Health and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 4100</td>
<td>Health Education Curriculum for Secondary Teachers</td>
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<tr>
<td>HLTH 4200</td>
<td>Health Education Teaching Methods WE</td>
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<tr>
<td>NUTR 1020</td>
<td>Foundations of Human Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>ZOOL 1090</td>
<td>Introduction to Human Anatomy and Physiology BB</td>
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</table>

Secondary Education Courses: Must be completed with a grade of B- or higher

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>EDSC 1010</td>
<td>Introduction to Education</td>
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<tr>
<td>EDSC 3000</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 325G</td>
<td>Equitable Technology Integration GI</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4200</td>
<td>Classroom Management I (Dance Education majors take DANC 4430 in place of EDSC 4200)</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4250</td>
<td>Classroom Management II</td>
<td>2</td>
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<tr>
<td>EDSC 4440</td>
<td>Content Area Literacies (English Education majors take ENGL 4210, 4220, 4230 in place of EDSC 4440)</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 445G</td>
<td>Multicultural Instruction ESL GI</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 455G</td>
<td>Secondary Curriculum Instruction and Assessment GI</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 4850</td>
<td>Student Teaching Secondary</td>
<td>8</td>
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<tr>
<td>EDSC 4990</td>
<td>Teacher Performance Assessment Project WE</td>
<td>2</td>
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Elective Requirements:

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>EDSP 340G</td>
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</table>

Elective Requirements: 10 Credits

Complete 10 credits of any course 1000 or higher 10

Graduation Requirements:

1. Completion of a minimum of 120 semester credits with a minimum of 40 upper-division credits. A minimum of at least 10 hours earned in the last 45 hours must be earned at UVU.
2. Overall GPA of 3.0 or above with no grade lower than a C in major required discipline core courses and no grade lower than a B- in Licensure and Methods courses.
3. Completion of GE and specified departmental requirements.
4. Successful completion of at least one Global/Intercultural course.

School Health Education, B.S.

Careers

Program Learning Outcomes

1. Prepare and teach developmentally appropriate lessons or learning experiences that lead to achieving health objectives based on the Utah State Secondary Health Education Core Curriculum.
2. Utilize effective instructional methods and pedagogy to deliver developmentally appropriate lessons or learning experiences that lead to achieving health objectives.
3. Create and maintain a positive, productive, safe, student-centered learning environment to facilitate student learning.
4. Utilize formative and summative assessment strategies to determine if students have achieved the desired learning objectives.

Related Careers

- Education Teachers, Postsecondary
- Middle School Teachers, Except Special and Career/Technical Education
- Secondary School Teachers, Except Special and Career/Technical Education
Public Service Graduate Programs

Public Service Graduate Program

The Master of Public Service Graduate Program is in the College of Health and Public Service. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Master of Public Service Graduate Program, visit their website.

Master of Public Service Graduate Program

Course Descriptions

Criminal Justice.......................................................... 589
Emergency Services Emerg Mgmt.................................. 694

Degrees & Programs

Master of Public Administration, M.P.A.

Requirements

The Master of Public Administration at Utah Valley University is an applied inter-disciplinary professional master’s degree aimed at preparing public service administrators in emergency services and criminal justice. This graduate degree provides an in-depth education of the science and praxis of administering vital public services, public safety functions, ethical considerations, leadership, and strategic communications, along with issues in emergency management, civil security/resiliency, public works, transportation, critical infrastructure protection, post-disaster humanitarian response, pandemics, strategic planning, public health, and public policy issues.

Total Program Credits: 36

Matriculation Requirements:

1. A 3.0 cumulative GPA from the institution where the undergraduate degree was awarded or a 3.0 GPA calculated on the last 60 semester hours (90 quarter hours) from the institution where the undergraduate degree was awarded.
2. A bachelor’s degree from a regionally-accredited college/university, a nationally accredited program, or an international college or university recognized by a Ministry of Education in one of the following or related fields: (Applicants with a bachelor's degrees in other fields may be admitted if they have at least two years of public services experience and completed undergraduate courses with a B grade or better. These applications are handled on a case-by-case basis.):
   a. Emergency Services
   b. Criminal Justice/Law Enforcement, Forensic Science
   c. Political Science
   d. Public and Community Health
   e. Aviation Science
   f. Emergency Management/Homeland Security
   g. Emergency Medical Services
   h. Business Administration, Organizational Management
   i. Environmental Science
   j. Public Admin/Public Management
   k. Social Science
   l. Technology Management
3. Graduate School Application.
4. Official transcripts from all attended institutions of higher education.
5. Two letters of recommendation.
6. Admissions Essay

Graduation Requirements:

1. A minimum cumulative GPA of 3.0 or higher must be maintained within program.
2. All course work must be completed with a "B" or higher.
3. Complete a minimum of 36 credit hours.
4. Graduates may not transfer more than 9 credits toward the MPA. All transfer courses will be reviewed by the College of Health and Public Service Graduate Committee.
Public Service Graduate Programs

Master of Public Administration, M.P.A.

Careers

1. Generate evidence-based strategies to public service-related problems in a dynamic and constantly changing environment.
2. Prepare public service budgets using public finance principles and procedures.
3. Evaluate the legal, regulatory, human resource, and ethical issues surrounding public service delivery.
4. Develop leadership and organizational skills for all career levels within public services.
5. Demonstrate written and verbal communication skills to address public service-related problems.

Related Careers

•
Secondary and Special Education

The Secondary and Special Education department is in the School of Education. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Secondary and Special Education department, visit their website.

Course Descriptions

Autism Studies .............................................................. 559
Edu Secondary Education ........................................... 653
Edu Special Education ................................................ 654
Physical Education Teacher Ed ...................................... 801

Degrees & Programs

Autism Studies, Minor

Requirements

The Minor in Autism Studies will be beneficial to anyone needing to work with, or interact with, those who have an Autism Spectrum Disorder (ASD). This would include those in supervisory positions overseeing ASD adults, educators who may have students with an ASD diagnosis in their classrooms, counselors and medical professionals, emergency services personnel, information and insight.

Total Program Credits: 19

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>19 Credits</th>
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<tbody>
<tr>
<td>Prerequisites:</td>
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<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC (3)</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Context CC (5)</td>
</tr>
<tr>
<td>or Writing proficiency determined by Autism Studies program director</td>
<td></td>
</tr>
</tbody>
</table>

Complete the following:

AUTS 250G Understanding the Autism Spectrum GI 3
AUTS 3810 Autism Across the Lifespan I Infants and Children 3
AUTS 382G Autism Across the Lifespan II Teens and Adults GI 3
AUTS 3850 Autism Assessment and Treatment 3
AUTS 4650 Autism and Applied Behavior Analysis 3
AUTS 481R Field Placement 3
AUTS 482R Group Autism Seminar 1

Autism Studies, Minor

Careers

1. Understand and recognize repetitive and perseverative behaviors, characteristic language, delays, and social deficits.
2. Behavior management tools and techniques.
3. The autism impact on the individual, family, and community.
4. Best practice interventions for early childhood, elementary age, and adult. Transitions through the lifespan.
5. Practical applications of evidence based intervention.
6. Available community resources, etc.

Related Careers

- Managers, All Other
- Clinical, Counseling, and School Psychologists
- Psychologists, All Other
- Psychology Teachers, Postsecondary

Physical Education Teacher Education, B.S.

Requirements

Graduates from the Physical Education K-12 Teacher Education (PETE) program will be prepared to meet all standards for Utah licensure for K-12 Physical Education. They should also be prepared to meet most standards for certification in the rest of the 49 states, since the National Initial Physical Education Teacher Education Standards have been used to develop, assess, and update the program on an annual basis. The focus of this program is on enhancing student outcomes – both for university students and for their future students. Outcomes that should be met by the end of the program include scientific and theoretical knowledge, skill and fitness based competency, planning and implementation, instructional delivery and management, impact on student learning, and professionalism. PETE majors learn to individualize instruction to enhance learning for all students, regardless of their abilities.

Total Program Credits: 120

Matriculation Requirements:

1. Acceptance to the Secondary Education Program, which include the following requirements:
   a. ENGL and MATH QL courses must have a grade C or higher.
   b. GPA of 3.0 or higher with no grade lower than a C in content area courses.
   c. Completion of all General Education requirements and 70% of content area courses.
   d. Pass LiveScan Criminal Background Check.
2. Complete PETE 3100 Introduction to Physical Education Pedagogy with a grade of C or better.
3. Fitness requirement: Students must achieve and maintain a health-enhancing level of fitness. Standards will be set according to expert guidelines that take into effect age, gender, disability, and other contributing factors.

General Education Requirements: 36 Credits

| ENGL 1010 | Introduction to Academic Writing CC | 3 |
| ENGH 1005 | Literacies and Composition Across Contexts CC (5) |
| ENGL 2010 | Intermediate Academic Writing CC | 3 |
| MATH 1050 | College Algebra QL | 4 |
| or MATH 1055 | College Algebra with Preliminaries QL (5) |

Complete one of the following:

| HIST 2700 | US History to 1877 AS (3) |
| HIST 2710 | US History since 1877 AS (3) |
| HIST 1700 | American Civilization AS (3) |
| HIST 1740 | US Economic History AS (3) |
| POLS 1000 | American Heritage SS (3) |
| POLS 1100 | American National Government AS (3) |
Secondary and Special Education

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>EXSC 1097</td>
<td>Fitness for Life TE</td>
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Distribution Courses:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1010</td>
<td>General Biology BB</td>
<td>3</td>
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<tr>
<td>or BIOL 1610</td>
<td>College Biology I BB (4)</td>
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<tr>
<td>Physical Science</td>
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<td>3</td>
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Choose from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ZOOL 1090</td>
<td>Introduction to Human Anatomy and Physiology BB (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ZOOL 2320</td>
<td>Human Anatomy BB (3)</td>
<td>3</td>
</tr>
<tr>
<td>and ZOOL 2325</td>
<td>Human Anatomy Laboratory (1)</td>
<td>1</td>
</tr>
<tr>
<td>and ZOOL 2420</td>
<td>Human Physiology BB (3)</td>
<td>3</td>
</tr>
<tr>
<td>and ZOOL 2425</td>
<td>Human Physiology Laboratory (1)</td>
<td>1</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 120 semester credits with 40 semester credits from 3000 and 4000 level courses.
2. Overall GPA of 3.0 (B) or above with no grade lower than a C in major required content courses and no grade lower than a B- in Licensure and Methods courses.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

Notes:
1. CHEM 1010 Introduction to Chemistry PP or CHEM 1110 Elementary Chemistry for the Health Sciences PP recommended.
2. COMM 1020 Public Speaking HH recommended.
3. PSY 1100 Human Development Life Span SS recommended.

Education Student Teaching Seminar for Physical Assessment in Physical Education

Education Methods of Teaching Secondary Physical Education

Education Methods of Teaching Elementary Education

Education Special Populations in Physical Pedagogy

Education Introduction to Physical Education

Education K-12 Teacher Education

Education Physical Education Teacher Education, B.S.

Careers

1. Describe and apply motor development theory and principles related to skillful movement, physical activity and fitness.
2. Plan and implement progressive and sequential instruction that addresses the diverse needs of all students.
3. Select or create appropriate assessments that will measure student achievement of goals and objectives.
4. Know and apply discipline-specific scientific and theoretical concepts critical to the development of physical education individuals.
5. Physically educated individuals with the knowledge and skills necessary to demonstrate competent movement performance and health enhancing fitness as delineated in the NASPEK-12 Standards.
6. Plan and implement developmentally appropriate learning experiences aligned with local, state, and national standards to address the diverse needs of all students.
7. Use effective communication and pedagogical skills and strategies to enhance student engagement and learning.
8. Utilize assessments and reflection to foster student learning and inform instructional decisions.
9. Demonstrate dispositions essential to becoming effective professionals.

Related Careers

- Education Teachers, Postsecondary
- Recreation and Fitness Studies Teachers, Postsecondary
- Middle School Teachers, Except Special and Career/Technical Education
Secondary Education, Licensure

Requirements

The Professional Teacher Education Program at Utah Valley University is designed to prepare quality, entry level candidates for teaching in secondary education programs grades 7-12. All students who matriculate into the professional licensure program must have a major in an approved content area. Students seeking licensure in approved content areas complete a major in that area and required coursework in Secondary Education to qualify for a Level I Utah State Professional Educator License for grades 7-12.

Baccalaureate degrees (BS and BA) are granted through the content area department and not through the School of Education. Licensure is granted through the School of Education Program.

To continue in the teacher education program, students are expected to maintain all program standards. They must maintain expected levels of competence in all coursework, field work, and student teaching with all course grades at or above a B- or higher. Additionally, teacher candidates are expected to adhere to standards of personal integrity, responsibility, and citizenship commonly expected of professional educators.

Total Program Credits: 32

Matriculation Requirements:

1. ENGL and MATH QL courses must have a grade C or higher.
2. GPA of 3.0 or higher with no grade lower than a C in content area courses.
3. Completion of all General Education requirements and 70% of content area courses.
4. Pass LiveScan Criminal Background Check.

Discipline Core Requirements: 32 Credits

Pre-Professional Core Requirements

EDSC 1010 Introduction to Education 2

Discipline Core Courses 1

EDSC 3000 Educational Psychology 3
EDSC 325G Equitable Technology Integration GI 2
EDSC 4200 Classroom Management I 2 2
EDSP 340G Exceptional Students GI 2
EDSC 4250 Classroom Management II 2
EDSC 4440 Content Area Literacies 3 3
EDSC 445G Multicultural Instruction ESL GI 3
EDSC 455G Secondary Curriculum Instruction and Assessment GI 3
EDSC 4850 Student Teaching Secondary 8
EDSC 4990 Teacher Performance Assessment Project WE 2

Notes:
1. Must be completed with a grade of B- or higher.
2. Dance Education majors take DANC 4430 in place of EDSC 4200.
3. English Education majors take ENGL 4210, 4220, 4230 in place of EDSC 4440.

Special Education - Mild/Moderate/Severe and Autism Studies, B.S.

Requirements

The proposed degree program is for a Bachelor of Science in Special Education with an emphasis in mild/moderate and severe as well as a minor in Autism studies. The program will prepare undergraduate students for a Utah Teaching Certificate in K-12 Special Education in mild/moderate and severe disabilities as well as working with children on the Autism spectrum.

Total Program Credits: 122

Matriculation Requirements

Admission criteria includes:

1. ENGL and MATH QL courses must have a grade C or higher.
2. GPA of 3.0 or higher
3. General Education and Pre-program coursework
   a. Grade of B- or higher in pre-program courses (Math courses C or higher)
4. Pass LiveScan Criminal Background Check
5. (Optional) Completion of the Associate of Science degree in Pre-Elementary Education or equivalent (completion of this degree does not guarantee acceptance into the UVU Special Education Program)

General Education Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
<td>3</td>
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<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2000</td>
<td>Algebraic Reasoning with Modeling QL (3)</td>
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Complete the following:

<table>
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<tbody>
<tr>
<td>HIST 2700</td>
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<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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Complete the following:

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<th>Course Code</th>
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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
</tr>
<tr>
<td>HLTH 2900</td>
<td>Health Education for Elementary Teachers</td>
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Distribution Courses:

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<th>Category</th>
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<tbody>
<tr>
<td>Biology</td>
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<tr>
<td>Physical Science</td>
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<tr>
<td>Additional Biology or Physical Science</td>
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<tr>
<td>Humanities Distribution</td>
<td>3</td>
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<tr>
<td>PSY 1100</td>
<td>Human Development Life Span SS I (3)</td>
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Fine Arts Distribution:

<table>
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<tbody>
<tr>
<td>Biology</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td>3</td>
</tr>
</tbody>
</table>
Secondary and Special Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 2100</td>
<td>Teaching Art for Children FF (3)</td>
<td></td>
</tr>
<tr>
<td>DANC 2100</td>
<td>Teaching Dance for Children FF (3)</td>
<td></td>
</tr>
<tr>
<td>MUSC 2100</td>
<td>Teaching Music for Children FF (3)</td>
<td></td>
</tr>
<tr>
<td>THEA 2100</td>
<td>Teaching Theatre For Children FF (3)</td>
<td></td>
</tr>
<tr>
<td>EDSP 445G</td>
<td>Curriculum Design and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>AUTS 481R</td>
<td>Field Placement</td>
<td>3</td>
</tr>
<tr>
<td>AUTS 482R</td>
<td>Group Autism Seminar</td>
<td>1</td>
</tr>
<tr>
<td>EDSP 4990</td>
<td>Teacher Performance Assessment Project WE</td>
<td>2</td>
</tr>
<tr>
<td>EDSP 4885</td>
<td>Special Education Student Teaching Grades K-6</td>
<td>6</td>
</tr>
<tr>
<td>or EDSP 4895</td>
<td>Special Education Student Teaching Grades 7-12</td>
<td>4</td>
</tr>
</tbody>
</table>

Elective Requirements: 3 Credits

Complete additional credits to meet requirements.

Notes:
1. *C* grade or higher
2. Students must complete all Pre-Professional and General Education courses with an overall GPA of 3.0 before they are formally admitted into the Teacher Preparation Program. Students must meet with their academic advisor to determine which classes to take 1st, 2nd, 3rd, and 4th semesters.
3. Must be completed with a grade of B- or higher.
4. Taken with student teaching. Must register for AUTS 481R and AUTS 482R plus attend 482R class once a week during student teaching.

Graduation Requirements:
1. Completion of a minimum of 122 semester credits.
2. Overall grade point average of 3.0 or above.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.
6. Grade of B- or higher for all AUTS courses.

NOTE: Application forms are available at the beginning of each Fall semester, must be completed by October 1st, and can be obtained in the Education Department, 801-863-8527.

Special Education - Mild/Moderate/Severe and Autism Studies, B.S.

Careers

1. Developed an understanding of how cognitive, linguistic, social, emotional, and physical areas of student learning development meet the needs of individual learning differences.
2. Developed an understanding of individual learner differences and cultural and linguistic diversity.
3. Displayed the ability to work with learners to create environments that support individual and collaborative learning, encouraging positive social interaction, active engagement in learning, and self-motivation.
4. Developed an understanding of the central concepts, tools of inquiry, and structures of the discipline.
5. Learned to apply multiple methods of assessment to engage learners in their own growth, monitor learner progress, guide planning and instruction, and determine whether the outcomes described in content standards have been met.
6. Learned how to plan instruction to support students in meeting rigorous learning goals by drawing upon knowledge of content areas, Utah Core standards, practices, and the community context.
7. Displayed the ability to use various instructional strategies to ensure that all learners develop a deep understanding of content areas and their connections and build skills to apply and extend knowledge in meaningful ways.
8. Displayed the ability to be a reflective practitioner who uses evidence to continually evaluate and adapt practice to meet the needs of each learner.

9. Displayed the ability to be a leader who engages collaboratively with learners, families, colleagues, and community members to build a shared vision and supportive professional culture focused on student growth and success.

10. Demonstrated the highest standard of legal, moral, and ethical conduct as specified in Utah State Board Rule R277-515.

**Related Careers**

- Special Education Teachers, Preschool
- Special Education Teachers, Kindergarten and Elementary School
- Special Education Teachers, Middle School
- Special Education Teachers, Secondary School
- Special Education Teachers, All Other
Social Work Graduate Programs

Social Work Graduate Programs
The Master of Social Work Graduate Programs are in the College of Humanities and Social Sciences. To find the most up-to-date information, including Program Learning Outcomes for the Master of Social Work Graduate Programs, visit their website.

Master of Social Work Graduate Programs

Course Descriptions
Social Work........................................................................................................................................847
Strategic Management and Operations

Strategic Management and Operations

The Strategic Management department is in the Woodbury School of Business. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Strategic Management department, visit their website.

Strategic Management department

DEPARTMENT CHAIR
ADAMS, Lynn L. Associate Professor

FACULTY
ADAMS, Lynn L. Associate Professor
EL SAIDI, Mohammed Professor
GOUGH, Vance Associate Professor
HAMIDI, Mohsen Assistant Professor
HAMILTON, Carolyn Associate Professor
MCARTHUR, David N. Associate Professor
MILLER, Ronald Professor
MILLIGAN, Patrick Professional In Residence
MORTENSEN, James Professional In Residence
RHOADS, Kevin A. Assistant Professor
ROBINSON, Peter B. Professor
SEELEY, Eugene L. Associate Professor
SMITH, Gregory Richard Professional in Residence
WARMBIER, H. Peter Sr. Lecturer
WITT, Phillip W. Assistant Professor
ÇALIŞKAN, Cenk Professor

Course Descriptions

Entrepreneurship ......................................................... 683
Business Management ................................................... 771

Degrees & Programs

Associate in Science in Business, A.S.B.

Requirements

An Associate in Science Woodbury School of Business transfer degree is available for students planning to transfer to another college or university in Utah.

Total Program Credits: 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

or

<table>
<thead>
<tr>
<th>ENGL 1005 Literacies and Composition Across Contexts CC (5)</th>
</tr>
</thead>
</table>

or

| ENGL 2010 Intermediate Academic Writing CC | 3 |

Complete one of the following: 3

<table>
<thead>
<tr>
<th>MATH 1050 College Algebra QL (4)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MATH 1055 College Algebra with Preliminaries QL (5)</th>
</tr>
</thead>
</table>

| MATH 1090 College Algebra for Business QL (3) |

Complete one of the following: 3

<table>
<thead>
<tr>
<th>HIST 2700 US History to 1877 AS (3)</th>
</tr>
</thead>
</table>

and

<table>
<thead>
<tr>
<th>HIST 2710 US History since 1877 AS (3)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>HIST 1700 American Civilization AS (3)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>HIST 1740 US Economic History AS (3)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>POLS 1000 American Heritage SS (3)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>POLS 1100 American National Government AS (3)</th>
</tr>
</thead>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>PHIL 2050 Ethics and Values IH</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>HLTH 1100 Personal Health and Wellness TE (2)</th>
</tr>
</thead>
</table>

or

<table>
<thead>
<tr>
<th>EXSC 1097 Fitness for Life TE</th>
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</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>Biology</th>
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<tbody>
<tr>
<td>3</td>
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<table>
<thead>
<tr>
<th>Physical Science</th>
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<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Biology or Physical Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>ECON 2010 Principles of Economics I</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanities</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Fine Arts</th>
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<tbody>
<tr>
<td>3</td>
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Discipline Core Requirements: 25 Credits

<table>
<thead>
<tr>
<th>ACC 2110 Principles of Accounting I</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>MGMT 2240 Business Calculus</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

or

<table>
<thead>
<tr>
<th>MATH 1100 Survey of Calculus QL (4)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MKTG 220G Written Business Communication GI WE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MGMT 2340 Business Statistics I</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

or

<table>
<thead>
<tr>
<th>STAT 2040 Principles of Statistics QL (4)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MGMT 2400 Data Analytics for Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>IM 2010 Business Computer Proficiency (3)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>IM 2600 Spreadsheet Applications (3)</th>
</tr>
</thead>
</table>

Complete an additional 7 credit hours from any course numbered 1000 or higher. 7

Notes :

1. Students are required to complete IM 2010 or IM 2600 with a grade of B- or higher.

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 or above with 2.5 GPA or above in Business courses. No grade below C- in business courses.
3. Residency hours: Minimum of 20 credit hours through course attendance at UVU with at least 12 credits of School of Business courses.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.

Notes: See information on the back of the program card for additional specialized general education/major requirements for individual transfer schools (some requirements for other schools cannot be taken at UVU.)
Strategic Management and Operations

Business Management, A.A.S.

Requirements
Students majoring in business management may receive a Certificate of Completion, an Associate in Applied Science in Business Management, an Associate in Science in Hospitality Management, or a Bachelor of Science in Business Management with a specialization in one of the following four areas: Entrepreneurship, General Business, Hospitality Management, or International Business. An Associate in Science Woodbury School of Business transfer degree is available for students planning to transfer to another college or university in Utah.

Total Program Credits: 63

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>11 Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGLISH:</td>
<td></td>
</tr>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>MATHEMATICS: Complete one of the following</td>
<td>4</td>
</tr>
<tr>
<td>MAT 1015 Integrated Algebra with Integrated Review (5)</td>
<td></td>
</tr>
<tr>
<td>MAT 1010 Intermediate Algebra (4)</td>
<td></td>
</tr>
<tr>
<td>Any approved Physical Education, Health, Safety or Environment course</td>
<td>1</td>
</tr>
<tr>
<td>FIN 1060 Personal Finance SS</td>
<td>3</td>
</tr>
</tbody>
</table>

Discipline Core Requirements: 24 Credits

| ACC 2110 Principles of Accounting I | 3 |
| MGMT 1010 Introduction to Business SS | 3 |
| IM 2600 Spreadsheet Applications | 3 |
| MKTG 220G Written Business Communication GI WE | 3 |
| MKTG 2390 Professional Business Presentations | 3 |
| ENTR 2500 Creativity and Entrepreneurial Thinking SS | 3 |
| DWDD 1600 Web Essentials | 3 |
| DWDD 1400 Digital Design Essentials | 3 |

Elective Requirements: 28 Credits

| Any ACC, ECON, FIN, HM, LEGL, MGMT, MKTG course 1000 level or higher | 28 |
| MTECH students will receive 28 credits for electives with a 900+ hour certificate in any technical area. | |

Notes: 1. No more than three credits of MGMT 281R Cooperative Work Experience will be allowed as business elective; see advisor for further recommendations.

Graduation Requirements:
1. Completion of a minimum of 63 semester credits.
2. Overall grade point average of 2.0 (C) or above with 2.5 required for all Woodbury School of Business courses. No grade below C- in required courses.
3. Residency hours: Minimum of 20 credit hours through course attendance at UVU with at least 12 credits of Woodbury School of Business courses.
4. Completion of GE and specified departmental requirements.

Pre-Major in Business, A.S.

Requirements
Students majoring in business management may receive a Certificate of Completion, an Associate in Applied Science in Business Management, an Associate in Science in Hospitality Management, or a Bachelor of Science in Business Management with a specialization in one of the following four areas: Entrepreneurship, General Business, Hospitality Management, or International Business. An Associate in Science Woodbury School of Business transfer degree is available for students planning to transfer to another college or university in Utah.

Total Program Credits: 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following:

| MATH 1050 College Algebra QL (4) | 3 |
| MATH 1055 College Algebra with Preliminaries QL (4) | |
| MATH 1090 College Algebra for Business QL (3) | |
| An Advanced Placement (AP) Mathematics Test with a score of 3 or higher | |

Complete one of the following:

| HIST 2700 US History to 1877 AS (3) | 3 |
| HIST 2710 US History since 1877 (3) | |
| HIST 1700 American Civilization AS (3) | |
| HIST 1740 US Economic History AS (3) | |
| POLS 1000 American Heritage SS (3) | |
| POLS 1100 American National Government AS (3) | |

Complete the following:

| PHIL 2050 Ethics and Values IH | 3 |
| HLTH 1100 Personal Health and Wellness TE | 2 |
| or EXSC 1097 Fitness for Life TE (2) | |

Distribution Courses:

| Biology | 3 |
| Physical Science | 3 |
| Additional Biology or Physical Science | 3 |
| ECON 2010 Principles of Economics I SS | 3 |
| Humanities | 3 |
| Fine Arts | 3 |

Discipline Core Requirements: 15 Credits

Choose 15 credits from the following list:

| ACC 2110 Principles of Accounting I (3) | |
| ACC 2120 Principles of Accounting II (undefined) | |
| ENTR 2500 Creativity and Entrepreneurial Thinking SS (3) | |
| MGMT 2240 Business Calculus (3) | |
| or MATH 1100 Survey of Calculus QL | |
Strategic Management and Operations

1. Students are required to complete IM 2010 Business Computer Proficiency or IM 2600 Spreadsheet Applications with a score of 80 percent or higher.

Graduation Requirements:

1. Completion of a minimum of 30 semester credits.
2. Overall grade point average of 2.0 or above with 2.5 GPA or above in Business courses. No grade below "C-" in business courses.
3. Residency hours: Minimum of 10 credit hours through course attendance at UVU with at least 12 credits of Woodbury School of Business courses.

Data Analytics and Decision Making, Certificate of Proficiency

Requirements

The Certificate of Proficiency in Data Analytics and Decision Making provides a skill set of recognizing the importance of data for solving operational, tactical, and strategic level organizational problems. Students will learn how to evaluate the characteristics, capabilities, and limitations of digital data as well as understand data-related laws and ethical practices. Courses cover topics related to the data analytics process, business rule modeling, data transformation, data management, applied statistics, data visualization, storytelling, and the ethical considerations of data analytics.

Total Program Credits: 18

Discipline Core Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 1400</td>
<td>Introduction to Data Analytics</td>
<td>3</td>
</tr>
<tr>
<td>CS 1400</td>
<td>Fundamentals of Programming</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (MATH 1050 or higher)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1100</td>
<td>Survey of Calculus QL (4)</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2240</td>
<td>Business Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2340</td>
<td>Business Statistics I (3)</td>
<td>3</td>
</tr>
<tr>
<td>STAT 2050</td>
<td>Introduction to Statistical Methods (4)</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Requirements:

Choose six credits from the following: 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 2400</td>
<td>Data Analytics for Business (3)</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2240</td>
<td>Business Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2340</td>
<td>Business Statistics I (3)</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3300</td>
<td>Marketing Analytics</td>
<td>3</td>
</tr>
<tr>
<td>CS 1410</td>
<td>Object-Oriented Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 2420</td>
<td>Introduction to Algorithms and Data Structures (3)</td>
<td>3</td>
</tr>
<tr>
<td>STAT 2050</td>
<td>Introduction to Statistical Methods (4)</td>
<td>3</td>
</tr>
<tr>
<td>BIOI 3100</td>
<td>Introduction to Data Analysis for Biologists (3)</td>
<td>3</td>
</tr>
<tr>
<td>BIOI 1011</td>
<td>Introduction to Bioinformatics</td>
<td>3</td>
</tr>
</tbody>
</table>

Notes:

1. Math courses numbered higher than MATH 1050 may also be used to fulfill the requirement.
2. Cannot use courses as electives that were counted in the core.
3. If this course was used to fulfill the MATH 1050 requirement, a different course must be selected for this category.

Graduation Requirements:
1. Completion of a minimum of 18 semester credit hours.
2. Overall grade point average of 2.0 (C-) or above.
3. Residency hours -- minimum of 5 credit hours of course attendance at UVU.

Data Analytics and Decision Making, Certificate of Proficiency

Careers
1. Identify and apply an appropriate statistical or analytical modeling methodology to solve an analytics problem.
2. Design and deliver visualizations, professional reports and presentations that effectively communicate the results of complex analytics problems.
3. Students demonstrate how to manage, structure, query, and manipulate data.
4. Students demonstrate critical thinking in their identification, analysis, and decision-making in a business analytics situation, including ethical dimensions.

Related Careers
• Statisticians
• Survey Researchers
• Business Teachers, Postsecondary
• Mathematical Science Teachers, Postsecondary

Entrepreneurship, Certificate of Proficiency

Requirements
Students minoring in the business management area of entrepreneurship will be exposed to and practice the skills needed by entrepreneurs in starting and developing their own businesses or growing the business of another entrepreneur.

Total Program Credits: 16

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>13 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR 3170 Entrepreneurship: Feasibility Analysis</td>
<td>2 3</td>
</tr>
<tr>
<td>ENTR 3180 Launching a New Venture</td>
<td>2 3</td>
</tr>
<tr>
<td>ENTR 3190 Early-stage Financing</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 4300 The Art of the Pitch</td>
<td>1</td>
</tr>
<tr>
<td>ENTR 493R Entrepreneurship Lecture Series</td>
<td>1</td>
</tr>
</tbody>
</table>

Elective Requirements: 3 Credits
Choose 3 credits from the following:
- ENTR 4200 Innovative Opportunity Development (3)
- ENTR 4210 Career Development for Entrepreneurs (3)
- ENTR 3220 Entrepreneurship Law (3) 2

Notes:
1. Course prerequisite of MATRICULATION will be waived for non-business majors who are enrolled in the Certificate program.
2. Has a prerequisite of ENGL 1010 Introduction to Academic Writing CC or ENGH 1005 Literacies and Composition Across Contexts CC.

Graduation Requirements:
1. Completion of a minimum of 16 credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours -- minimum of 6 credit hours through course attendance at UVU.

Note: The Certificate in Entrepreneurship provides students from all majors outside the Woodbury School of Business a program by which they can add the mindset and basic competencies provided in a formal entrepreneurship program without abandoning their chosen field of study. Coursework includes principles of small business development, financing, technology-based opportunity identification, law, and personal entrepreneurial development.

Hospitality Management, Certificate of Proficiency

Requirements
The Institutional Certificate of Proficiency in Hospitality Management is available for all UVU students with a particular focus designed to provide high school students an opportunity to obtain a certificate of proficiency with a focus on career and technical education while still enrolled in high school. This certificate will also be available from the University for college students/adults looking for entry-level skills leading to further academic advancement. This certificate is designed to stack into certificate and associate degrees at UVU. Students learn about a wide range of hospitality and tourism areas such as: hotel, resort, and motel management; event planning; restaurant and institutional food service; and a number of other areas such as cruise ship management, amusement park management, convention and visitor facilities, and gaming facilities.

Total Program Credits: 16

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>9 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC</td>
<td></td>
</tr>
<tr>
<td>IM 2010 Business Computer Proficiency</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 1055 College Algebra with Preliminaries QL</td>
<td></td>
</tr>
<tr>
<td>HM 1010 Introduction to Hospitality Industry</td>
<td>3</td>
</tr>
<tr>
<td>CA 1000 Culinary Basics</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Completion of a minimum of 16 semester hours
2. Minimum grade of C required in ENGL 1010 or ENGH 1005

Hospitality Management, Certificate of Proficiency

Careers
1. Students will have a foundation to allow them to continue on to an associate’s or bachelor’s degree in Hospitality Management and completing this will shorten the time it takes to complete those programs.

Related Careers
• Food Service Managers
• Lodging Managers
Leadership Studies - Nonprofit Organizations, Certificate of Proficiency

Requirements

The leadership studies - nonprofit organizations certificate focuses on applying, analyzing, and evaluating effective leadership approaches. It focuses on leadership development in the nonprofit sector. The certificate emphasizes leadership theories and practice and cultivates students’ self-awareness and the development of leadership competencies. The curriculum core emphasizes leadership principles and theory while the electives provide interdisciplinary perspectives. As such, students gain understanding of diverse social, cultural, and organizational processes that impact effective leadership in a variety of contexts. The goal of the certificate is to prepare students for career growth and for leading organizational success.

Total Program Credits: 18

Discipline Core Requirements: 18 Credits

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 1250</td>
<td>Principles of Leadership</td>
</tr>
<tr>
<td>MGMT 3500</td>
<td>Leadership Theory and Application WE</td>
</tr>
<tr>
<td>POLS 3320</td>
<td>Nonprofits and The Public Sector</td>
</tr>
<tr>
<td>THEA 3625</td>
<td>Development and Fundraising for the Arts</td>
</tr>
</tbody>
</table>

Electives (choose 6 credits hours from the following.) 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 2030</td>
<td>Inclusive Leadership SS</td>
</tr>
<tr>
<td>MGMT 450R</td>
<td>Leadership Practicum</td>
</tr>
<tr>
<td>AERO 3100</td>
<td>Management and Leadership A</td>
</tr>
<tr>
<td>AERO 3110</td>
<td>Management and Leadership B</td>
</tr>
<tr>
<td>AMST 300R</td>
<td>Topics in American Studies</td>
</tr>
<tr>
<td>COMM 3410</td>
<td>Fundamentals of Mediation and Negotiation</td>
</tr>
<tr>
<td>COMM 4250</td>
<td>Communication and Leadership</td>
</tr>
<tr>
<td>ENGL 473R</td>
<td>Topics in Gender Studies</td>
</tr>
<tr>
<td>ESMG 4000</td>
<td>Advanced Emergency Services Leadership</td>
</tr>
<tr>
<td>ESWF 3380</td>
<td>L380 Fireline/Fire Service Leadership</td>
</tr>
<tr>
<td>ESWF 3381</td>
<td>L381 Incident Leadership</td>
</tr>
<tr>
<td>ESWF 4481</td>
<td>L481 Advanced Leadership for Command and General Staff</td>
</tr>
<tr>
<td>HR 3550</td>
<td>Organization Development</td>
</tr>
<tr>
<td>MGMT 3000</td>
<td>Organizational Behavior WE</td>
</tr>
<tr>
<td>MGMT 3020</td>
<td>Individual Action and Corporate Social Responsibility</td>
</tr>
<tr>
<td>MGMT 332G</td>
<td>Cross Cultural Communications for International Business GI</td>
</tr>
<tr>
<td>MGMT 297H</td>
<td>Honors Seminar in Leadership Development</td>
</tr>
<tr>
<td>MILS 1200</td>
<td>Introduction to Leadership Excellence I</td>
</tr>
<tr>
<td>MILS 145R</td>
<td>Introduction to Leadership Dynamics and Techniques</td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Overall grade point average 2.75 or above.
2. Completion of 18 credits.
3. Residency hours -- minimum of 5 credit hours through course attendance at UVU.

Leadership Studies, Certificate of Proficiency

Careers

1. Apply leadership theories to real-life situations.
2. Demonstrate mastery of oral and written communication in the context of leadership development theory and practice.
3. Apply critical analytical and problem-solving skills to identify and solve leadership problems and issues.
4. Engage in the development process by cultivating donors, raising money through donations, sponsorships, and grants to support nonprofit organizations.

Leadership Studies, Certificate of Proficiency

Requirements

The leadership studies certificate focuses on applying, analyzing, and evaluating effective leadership approaches. The certificate emphasizes leadership theories and practice and cultivates students’ self-awareness and the development of leadership competencies. The curriculum core emphasizes leadership principles and theory while the electives provide interdisciplinary perspectives. As such, students gain understanding of diverse social, cultural, and organizational processes that impact effective leadership in a variety of contexts. The goal of the certificate is to prepare students for career growth and for leading organizational success.

Total Program Credits: 18

Discipline Core Requirements: 18 Credits

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 1250</td>
<td>Principles of Leadership</td>
</tr>
<tr>
<td>MGMT 2030</td>
<td>Inclusive Leadership SS</td>
</tr>
<tr>
<td>MGMT 3500</td>
<td>Leadership Theory and Application WE</td>
</tr>
<tr>
<td>MGMT 332G</td>
<td>Cross Cultural Communications for International Business GI</td>
</tr>
<tr>
<td>MGMT 297H</td>
<td>Honors Seminar in Leadership Development</td>
</tr>
<tr>
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<td>Introduction to Leadership Excellence I</td>
</tr>
<tr>
<td>MILS 145R</td>
<td>Introduction to Leadership Dynamics and Techniques</td>
</tr>
</tbody>
</table>

Electives (choose 6 credits hours from the following.) 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO 3100</td>
<td>Management and Leadership A</td>
</tr>
</tbody>
</table>
### Operations Management, Certificate of Proficiency

**Requirements**

The Certificate in Operations Management gives graduates specialized skills in the analysis of how businesses manage processes to improve organizational functions. Graduates learn principles of scheduling, production, inventory management, quality management, lean processing, and other activities required for efficient organizational functions.

**Total Program Credits: 21**

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>21 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1050 College Algebra QL (4.0)</td>
<td>or MATH 1055 College Algebra with Preliminaries QL (5.0)</td>
</tr>
<tr>
<td>or MATH 1090 College Algebra for Business QL</td>
<td>or Higher math course</td>
</tr>
<tr>
<td>MGMT 2240 Business Calculus</td>
<td>or MATH 1100 Survey of Calculus QL (4.0)</td>
</tr>
<tr>
<td>MGMT 2340 Business Statistics I</td>
<td>or STAT 2040 Principles of Statistics QL (4.0)</td>
</tr>
<tr>
<td>MGMT 3345 Business Statistics II</td>
<td>MGMT 3450 Operations Management</td>
</tr>
<tr>
<td>MGMT 3470 Lean Management Systems</td>
<td>MGMT 3070 Total Quality Management</td>
</tr>
<tr>
<td>MGMT 3470 Lean Management Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 21 semester credits.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all Woodbury School of Business courses. No grade lower than a "C-" in core and specialization courses.
3. Residency hours: minimum of 6 credit hours through course attendance at UVU.

**Operations Management, Certificate of Proficiency Careers**

1. Graduates will have a functional and integrated knowledge of basic general business concepts and disciplines.
2. Graduates will be able to effectively express their knowledge and ideas appropriately in written form.
3. Students will be able to understand and demonstrate an understanding of quantitative literacy.
4. Students will acquire oral communication skills required in the business world today to be successful.
5. Students will use analytical thinking as a linear and focused process, with one thought following the other in a streamlike formation. They will use critical thinking as it occurs in a circular form until a conclusion is drawn.

**Related Careers**

- Computer and Information Systems Managers
- Industrial Production Managers
- Construction Managers
- Logisticians
- Business Teachers, Postsecondary
- First-Line Supervisors of Mechanics, Installers, and Repairers
- First-Line Supervisors of Production and Operating Workers
Process Improvement and Operations CA, Certificate of Proficiency

Requirements
The Utah Leads CP in Process Improvement and Operations CA is aimed at producing career-enhanced graduates in operations management to meet the growing demand for employees with this skill set. Students can enhance their careers through a program of study consisting not only of a theoretical base in making good business operating decisions, but the program also takes a hands-on, practical approach to learning. Practical knowledge is gained by not only offering, but requiring, each graduate to sit for a professional industry certification exam in lean management, as well as other applicable, hands-on projects with industry partners applying skills and tools learned throughout their coursework. Further, students will benefit from UVU’s program connection with industry leaders who advise program directors regarding course offerings and course content that is most valuable on the job market. Students will also be provided multiple opportunities to interact and network with industry partners on in-class projects and in-class guest speakers. Students will gain knowledge in core topics such as analytics for business decisions, business decision optimization, supply chain management, process improvement tools and methodologies, and quality management tools and techniques (lean, six sigma, theory of constraints, etc.). Graduates will be prepared to enter the job market as operations professionals in a variety of industries such as technology, healthcare, supply chain, manufacturing, distribution, and logistics.

Total Program Credits: 9

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>9 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 3450 Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3070 Total Quality Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3470 Lean Management Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. All credits must be taken at UVU.
2. No grade lower than a “C-” in any of the program courses.
3. Minimum GPA of 2.5.

Process Improvement and Operations CA, Certificate of Proficiency Careers

1. Exhibit quantitative reasoning skills in the application to a variety operations problem.
2. Understand, conduct, and present (in both written and oral formats) quantitative business solutions.
3. Apply a variety of forecasting, optimization, and other mathematical and statistical tools to a number of business problems.
4. Approach, synthesize, and analyze operations problems using quantitative and qualitative techniques, and state-of-the-art software packages.
5. Understand operations issues affecting businesses locally, nationally, and internationally.
6. Understand systems and process thinking and reasoning as they approach operations issues and/or face ethical dilemmas in their schoolwork and future careers.

Related Careers
- Computer and Information Systems Managers
- Industrial Production Managers
- Construction Managers
- Logisticians

Business Management, Minor

Requirements
Students minoring in business management may have their Bachelor of Science (whether in Business Management or in another field) endorsed with a Minor in Business Management.

Total Program Credits: 19

Matriculation Requirements:
1. Admitted to a bachelor degree program at UVU.

Discipline Core Requirements: 16 Credits

Business Core Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2110</td>
<td>Principles of Accounting I</td>
</tr>
</tbody>
</table>

Complete one of the following:

- My Educator
- IM 2600 Spreadsheet Applications (3)
- IM 2010 Business Computer Proficiency (3)
- INFO 3120 Management Information Systems (3)
- MGMT 2400 Introduction to Data Analytics for Business Professionals (3)
- LEGL 3000 Business Law (3)
- MKTG 220G Written Business Communication GI WE (3)
- ECON 2010 Principles of Economics I SS WE (3)
- MGMT 3000 Organizational Behavior WE (3)
- MGMT 495R Executive Lecture Series (1)
- ENTR 493R Entrepreneurship Lecture Series (1)

Elective Requirements: 3 Credits

Choose one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 3100</td>
<td>Principles of Finance (3)</td>
</tr>
<tr>
<td>MGMT 330G</td>
<td>Survey of International Business GI (3)</td>
</tr>
<tr>
<td>HR 3430</td>
<td>Introduction to Human Resource Management(3)</td>
</tr>
<tr>
<td>MKTG 3600</td>
<td>Principles of Marketing (3)</td>
</tr>
</tbody>
</table>

Notes:
1. Cannot be taken until student is matriculated into a bachelor degree program.
2. Must be completed with a score of 80% or better.

Graduation Requirements:
1. Overall grade point average of 2.5 in all Woodbury School of Business courses and no grade lower than a C- in business courses.
2. Completion of GE and specified departmental requirements.

Note: Students are responsible for completing all prerequisite courses. Not available to Business Management majors.
## Entrepreneurship, Minor

### Requirements

Students minoring in the business management area of entrepreneurship will be exposed to and practice the skills needed by entrepreneurs in starting and developing their own businesses or growing the business of another entrepreneur.

Total Program Credits: 21

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>15 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2110 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>or ACC 2010 Financial Accounting (3)</td>
<td></td>
</tr>
<tr>
<td>ENTR 2500 Creativity and Entrepreneurial Thinking SS</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 3170 Entrepreneurship: Feasibility Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 3180 Launching a New Venture</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 4300 The Art of the Pitch</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Requirements:</th>
<th>6 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose 6 credits from the following:</td>
<td>6</td>
</tr>
<tr>
<td>ACC 2120 Principles of Accounting II (3)</td>
<td></td>
</tr>
<tr>
<td>or ACC 2020 Managerial Accounting (3)</td>
<td></td>
</tr>
<tr>
<td>ENTR 3190 Early-stage Financing (3)</td>
<td></td>
</tr>
<tr>
<td>HR 3430 Introduction to Human Resource Management (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 3650 Professional Selling (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 3670 Advertising and Promotion (3)</td>
<td></td>
</tr>
<tr>
<td>ENTR 4200 Innovative Opportunity Development (3)</td>
<td></td>
</tr>
<tr>
<td>ENTR 493R Entrepreneurship Lecture Series (1)</td>
<td></td>
</tr>
</tbody>
</table>

## Leadership Studies - Nonprofit Organizations, Minor

### Requirements

The leadership studies - nonprofit organizations minor focuses on applying, analyzing, and evaluating effective leadership approaches. It focuses on leadership development in the nonprofit sector. The minor emphasizes leadership theories and practice and cultivates students' self-awareness and the development of leadership competencies. The curriculum core emphasizes leadership principles and theory while the electives provide interdisciplinary perspectives. As such, students gain understanding of diverse social, cultural, and organizational processes that impact effective leadership in a variety of contexts. The goal of the minor is to prepare students for career growth and for leading organizational success in nonprofit organizations.

Total Program Credits: 18

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>18 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses:</td>
<td></td>
</tr>
<tr>
<td>MGMT 1250 Principles of Leadership</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3500 Leadership Theory and Application WE</td>
<td>3</td>
</tr>
<tr>
<td>POLS 3320 Nonprofits and The Public Sector</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3625 Development and Fundraising for the Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electives (choose 6 credits hours from the following.)</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 2030 Inclusive Leadership SS</td>
<td></td>
</tr>
<tr>
<td>MGMT 450R Leadership Practicum</td>
<td></td>
</tr>
<tr>
<td>AERO 3100 Management and Leadership A</td>
<td></td>
</tr>
<tr>
<td>AERO 3110 Management and Leadership B</td>
<td></td>
</tr>
<tr>
<td>AMST 300R Topics in American Studies</td>
<td></td>
</tr>
<tr>
<td>COMM 3410 Fundamentals of Mediation and Negotiation</td>
<td></td>
</tr>
<tr>
<td>COMM 4250 Communication and Leadership</td>
<td></td>
</tr>
<tr>
<td>ENGL 473R Topics in Gender Studies</td>
<td></td>
</tr>
<tr>
<td>ESMG 4000 Advanced Emergency Services Leadership</td>
<td></td>
</tr>
<tr>
<td>ESFS 3380 L380 Fireline/Fire Service Leadership</td>
<td></td>
</tr>
<tr>
<td>ESFS 3381 L381 Incident Leadership</td>
<td></td>
</tr>
<tr>
<td>ESFS 4481 L481 Advanced Leadership for Command and General Staff</td>
<td></td>
</tr>
<tr>
<td>HR 3550 Organization Development</td>
<td></td>
</tr>
<tr>
<td>MGMT 3000 Organizational Behavior WE</td>
<td></td>
</tr>
<tr>
<td>MGMT 3020 Individual Action and Corporate Social Responsibility</td>
<td></td>
</tr>
<tr>
<td>MGMT 332G Cross Cultural Communications for International Business GI</td>
<td></td>
</tr>
<tr>
<td>MGMT 297H Honors Seminar in Leadership Development</td>
<td></td>
</tr>
<tr>
<td>MILS 1200 Introduction to Leadership Excellence I</td>
<td></td>
</tr>
<tr>
<td>MILS 145R Introduction to Leadership Dynamics and Techniques</td>
<td></td>
</tr>
<tr>
<td>MILS 1210 Introduction to Leadership Excellence II</td>
<td></td>
</tr>
<tr>
<td>MKTG 3640 Sales Management</td>
<td></td>
</tr>
<tr>
<td>PJUST 4300 Race Gender and Class in Peace and Justice</td>
<td></td>
</tr>
<tr>
<td>POLS 3300 Introduction to Public Administration</td>
<td></td>
</tr>
<tr>
<td>POLS 420R Issues and Topics in Political Science</td>
<td></td>
</tr>
<tr>
<td>POLS 3370 Leading Cities</td>
<td></td>
</tr>
<tr>
<td>SOC 3510 Sociology of Work and Occupations</td>
<td></td>
</tr>
<tr>
<td>SOC 4400 Social Change</td>
<td></td>
</tr>
<tr>
<td>SLSS 3200 Leader--Teacher and Mentor</td>
<td></td>
</tr>
<tr>
<td>SLSS 405G Leader--Global Contributor GI</td>
<td></td>
</tr>
</tbody>
</table>

### Graduation Requirements:

1. Complete all the requirements for the minor.

### Leadership Studies - Nonprofit Organizations, Minor Careers

1. Apply leadership theories to real-life situations.
2. Demonstrate mastery of oral and written communication in the context of leadership development theory and practice.
3. Demonstrate critical analytical and problem-solving skills to identify and solve leadership problems and issues.
Leadership Studies, Minor

Requirements

The leadership studies minor focuses on applying, analyzing, and evaluating effective leadership approaches. The minor emphasizes leadership theories and practice and cultivates students' self-awareness and the development of leadership competencies. The curriculum core emphasizes leadership principles and theory while the electives provide interdisciplinary perspectives. As such, students gain understanding of diverse social, cultural, and organizational processes that impact effective leadership in a variety of contexts. The goal of the minor is to prepare students for career growth and for leading organizational success.

Total Program Credits: 18

<table>
<thead>
<tr>
<th>Discipline Core Requirements: 18 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses:</td>
</tr>
<tr>
<td>MGMT 1250 Principles of Leadership</td>
</tr>
<tr>
<td>MGMT 2030 Inclusive Leadership SS</td>
</tr>
<tr>
<td>MGMT 3500 Leadership Theory and Application WE</td>
</tr>
<tr>
<td>MGMT 450R Leadership Practicum</td>
</tr>
<tr>
<td>Electives (choose 6 credits hours from the following; 3 credits must be upper division.)</td>
</tr>
<tr>
<td>AERO 3100 Management and Leadership A</td>
</tr>
<tr>
<td>AERO 3110 Management and Leadership B</td>
</tr>
<tr>
<td>AMST 300R Topics in American Studies</td>
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<td>COMM 4250 Communicatio and Leadership Communication</td>
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<td>ESWF 3380 L380 Fireline/Fire Service Leadership</td>
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<td>ESWF 3381 L381 Incident Leadership</td>
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<td>ESWF 4481 L481 Advanced Leadership for Command and General Staff</td>
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<tr>
<td>HR 3550 Organization Development</td>
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<tr>
<td>MGMT 3000 Organizational Behavior WE</td>
</tr>
<tr>
<td>MGMT 3020 Individual Action and Corporate Social Responsibility</td>
</tr>
<tr>
<td>MGMT 332G Cross Cultural Communications for International Business GI</td>
</tr>
<tr>
<td>MGMT 297H Honors Seminar in Leadership Development</td>
</tr>
<tr>
<td>MILS 1200 Introduction to Leadership Excellence I</td>
</tr>
<tr>
<td>MILS 145R Introduction to Leadership Dynamics and Techniques</td>
</tr>
<tr>
<td>MILS 1210 Introduction to Leadership Excellence II</td>
</tr>
</tbody>
</table>

Business and Analysis, B.S.

Requirements

The Bachelor of Science in Business and Analysis produces career-ready graduates in an emerging and cross-disciplinary set of skills to meet a rapidly growing demand for employees. Degree skill sets include business analysis planning and monitoring, elicitation and collaboration, project management, data analysis and strategy, analytical thinking and problem solving, customer acquisition and retention, industry tools and technology/professional certification, and new venture financial acumen. Practical knowledge is gained by requiring each graduate to sit for at least one professional industry certification exam (IIBA, ECBA). Students will also be provided multiple opportunities to interact and network with industry partners on in-class projects and internships. Graduates will be prepared to enter the job market in a wide variety of industries such as technology, manufacturing, marketing, financial services, healthcare, and supply chain. In addition, this degree will provide entrepreneurial skills to develop businesses and products.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 2240 Business Calculus</td>
</tr>
<tr>
<td>or MATH 1100 Survey of Calculus QL</td>
</tr>
<tr>
<td>ECON 2010 Principles of Economics I SS</td>
</tr>
<tr>
<td>ACC 2110 Principles of Accounting I</td>
</tr>
<tr>
<td>MKTG 220G Written Business Communication GI WE</td>
</tr>
<tr>
<td>MGMT 2340 Business Statistics I</td>
</tr>
<tr>
<td>MGMT 2400 Data Analytics for Business</td>
</tr>
<tr>
<td>MKTG 2390 Professional Business Presentations</td>
</tr>
</tbody>
</table>
Strategic Management and Operations

Complete one of the following:\(^2\):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM 2010</td>
<td>Business Computer Proficiency</td>
<td>3</td>
</tr>
<tr>
<td>IM 2600</td>
<td>Spreadsheet Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
</tr>
<tr>
<td>or</td>
<td>ENGH 1005</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 2010</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL</td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL</td>
</tr>
<tr>
<td>or</td>
<td>An Advanced Placement (AP) Mathematics Test with a score of 3 or higher</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS</td>
</tr>
<tr>
<td>and</td>
<td>HIST 2710</td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS</td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS</td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
</tr>
<tr>
<td>or</td>
<td>EXSC 1097</td>
</tr>
<tr>
<td>or</td>
<td>HLTH 1100</td>
</tr>
</tbody>
</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2010</td>
<td>Principles of Economics I SS</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Distribution</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts Distribution</td>
<td>3</td>
</tr>
</tbody>
</table>

Discipline Core Requirements: 55 Credits

Complete one of the following: 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>My Educator</td>
<td></td>
</tr>
<tr>
<td>IM 2010</td>
<td>Business Computer Proficiency</td>
</tr>
<tr>
<td>IM 2600</td>
<td>Spreadsheet Applications</td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 1890</td>
<td>Introduction to Careers in Business</td>
</tr>
<tr>
<td>or</td>
<td>MATH 1100</td>
</tr>
<tr>
<td>MGMT 2240</td>
<td>Business Calculus</td>
</tr>
<tr>
<td>ACC 2110</td>
<td>Principles of Accounting</td>
</tr>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GI</td>
</tr>
<tr>
<td>MKTG 2340</td>
<td>Business Statistics I</td>
</tr>
</tbody>
</table>

Business Core Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 3100</td>
<td>Principles of Finance</td>
</tr>
<tr>
<td>MKTG 3600</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>MGMT 3000</td>
<td>Organizational Behavior WE</td>
</tr>
<tr>
<td>MGMT 3450</td>
<td>Operations Management</td>
</tr>
<tr>
<td>MKTG 3890</td>
<td>Business Career Preparation</td>
</tr>
<tr>
<td>ENTR 493R</td>
<td>Entrepreneurship Lecture Series</td>
</tr>
<tr>
<td>or</td>
<td>MKTG 495R</td>
</tr>
</tbody>
</table>

Concentration Core Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>FIN 3410</td>
<td>Introduction to Venture Capital Skills</td>
</tr>
<tr>
<td>MGMT 4260</td>
<td>Business Analysis and Project Management</td>
</tr>
<tr>
<td>MGMT 4350</td>
<td>Business Intelligence and Data Visualization</td>
</tr>
<tr>
<td>MKTG 4610</td>
<td>Sales Operations</td>
</tr>
<tr>
<td>MKTG 481R</td>
<td>Internship</td>
</tr>
<tr>
<td>or</td>
<td>MGMT 4860</td>
</tr>
<tr>
<td>MGMT 330G</td>
<td>Survey of International Business GI</td>
</tr>
<tr>
<td>MGMT 332G</td>
<td>Cross Cultural Communications for International Business GI</td>
</tr>
<tr>
<td>MKTG 335G</td>
<td>International Marketing GI</td>
</tr>
<tr>
<td>ECON 305G</td>
<td>International Economics GI</td>
</tr>
</tbody>
</table>

Program Electives: 15 Credits

Choose 15 credits from advisor's list of approved WSB courses

9 credits must be upper division.

6 credits can be lower or upper division.

General Electives: 15 Credits

Complete 15 hours of courses numbered 1000 or higher

Notes:

1. My Educator score of 80% or better; IM 2010 Business Computer Proficiency or IM 2600 Spreadsheet Applications with a grade of B- or higher.

Graduation Requirements:

1. Completion of a minimum of 120 semester credits required in the BS degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all Woodbury School of Business courses. No grade lower than a "C-" in core courses.
3. Residency hours: Minimum of 30 credit hours of business courses through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched courses.
NOTE: Students will be limited to 9 hours of upper-division credit until matriculation is completed.

Business and Analysis, B.S.

Careers

1. Exhibit quantitative and qualitative reasoning skills applied to a variety of business development and monitoring problems.
2. Analyze, conduct, and present (in both written and oral formats) quantitative business solutions.
3. Apply a variety of data analytics tools (data visualization, forecasting, simulation, optimization, strategic models and other mathematical, statistical tools, software, and computer language tools) to a wide variety of strategic business development problems.
4. Analyze, approach, and synthesize enterprise financial problems using quantitative and qualitative techniques and state-of-the-art software packages.
5. Develop solutions for customer acquisition and retention issues affecting businesses locally, nationally, and internationally.
6. Apply systems thinking and reasoning to create business development and solve elicitation and collaboration issues.

International Business, B.S.

Requirements

The Bachelor of Science in International Business produces graduates ready to assist companies with their international operations. Degree skills sets include import/export management, international marketing, international finance, cross-cultural communications, business-level proficiency in a foreign language, international management, analytical thinking, and problem solving. Practical knowledge is gained by requiring each graduate to take at least one professional industry certification exam (business language proficiency exams, CGBP, etc.). Students will also be provided multiple opportunities to interact and network with industry partners on in-class projects and internships. Graduates will be prepared to enter the job market in a wide variety of industries such as: technology, manufacturing, marketing, financial services, healthcare, and supply chain. In addition, this degree will provide vital international relations skills for those who wish to enter the US Foreign Service.

Total Program Credits: 120

Matriculation Requirements:

1. WSB Orientation
2. IM 2010 Business Computer Proficiency or IM 2600 Spreadsheet Applications (with a B- or higher) or MyEducator (score of 80% or higher)
3. ACC 2110 Principles of Accounting I
4. ECON 2010 Principles of Economics I SS
5. MKTG 2400 Data Analytics for Business
6. MKTG 220G Written Business Communication GI WE (with a B- or higher)
7. MGMT 2240 Business Calculus or MATH 1100 Survey of Calculus QL (4)
8. MGMT 2340 Business Statistics I
9. MKTG 2390 Professional Business Presentations

Note: C- and higher is allowed in other course work as long as overall 2.5 GPA is met.

General Education Requirements: 36 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
</tr>
</tbody>
</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1050</td>
<td>College Algebra QL (4)</td>
</tr>
<tr>
<td>MATH 1055</td>
<td>College Algebra with Preliminaries QL (5)</td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business QL (3)</td>
</tr>
</tbody>
</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
</tr>
<tr>
<td>or HIST 2710</td>
<td>US History since 1877 AS (3)</td>
</tr>
<tr>
<td>or HIST 1700</td>
<td>American Civilization AS (3)</td>
</tr>
<tr>
<td>or HIST 1740</td>
<td>US Economic History AS (3)</td>
</tr>
<tr>
<td>or POLS 1000</td>
<td>American Heritage SS (3)</td>
</tr>
<tr>
<td>or POLS 1100</td>
<td>American National Government AS (3)</td>
</tr>
<tr>
<td>or HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
</tr>
</tbody>
</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2010</td>
<td>Principles of Economics I SS</td>
</tr>
<tr>
<td>Fine Arts Distribution</td>
<td></td>
</tr>
<tr>
<td>Humanities Distribution (fulfilled by language 202G)</td>
<td></td>
</tr>
<tr>
<td>Biology Distribution</td>
<td></td>
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<tr>
<td>Physical Science Distribution</td>
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</tr>
<tr>
<td>Additional Biology or Physical Science</td>
<td></td>
</tr>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
</tr>
<tr>
<td>or PHIL 205G</td>
<td>Ethics and Values IH GI (3)</td>
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<tr>
<td>or PHIL 205H</td>
<td>Ethics and Values IH (3)</td>
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Discipline Core Requirements: 84 Credits

Complete one of the following:

<table>
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<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>My Educator</td>
<td></td>
</tr>
<tr>
<td>or IM 2010</td>
<td>Business Computer Proficiency (3)</td>
</tr>
<tr>
<td>or IM 2600</td>
<td>Spreadsheet Applications (3)</td>
</tr>
<tr>
<td>MKTG 1890</td>
<td>Introduction to Careers in Business</td>
</tr>
<tr>
<td>ACC 2110</td>
<td>Principles of Accounting I</td>
</tr>
<tr>
<td>MGMT 2400</td>
<td>Data Analytics for Business</td>
</tr>
<tr>
<td>MGMT 2240</td>
<td>Business Calculus</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Survey of Calculus QL (4)</td>
</tr>
<tr>
<td>MGMT 2340</td>
<td>Business Statistics I</td>
</tr>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GI WE</td>
</tr>
<tr>
<td>MKTG 2390</td>
<td>Professional Business Presentations</td>
</tr>
</tbody>
</table>

Business Core Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 3000</td>
<td>Organizational Behavior WE</td>
</tr>
<tr>
<td>MKTG 3600</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>FIN 3100</td>
<td>Principles of Finance</td>
</tr>
<tr>
<td>MKTG 3890</td>
<td>Business Career Preparation</td>
</tr>
<tr>
<td>MGMT 3450</td>
<td>Operations Management</td>
</tr>
<tr>
<td>ENTR 493R</td>
<td>Entrepreneurship Lecture Series</td>
</tr>
<tr>
<td>or MGMT 495R</td>
<td>Executive Lecture Series (1)</td>
</tr>
</tbody>
</table>
Strategic Management and Operations

Operations and Supply Chain Management, B.S.

Requirements
The BS in Operations and Supply Chain Management is aimed at producing career-ready graduates in operations and supply chain management to meet the growing demand for employees with this skill set. Students become career-ready through a program of study consisting not only of a theoretical base in making good business operating decisions but also a hands-on, practical approach to learning. Practical knowledge is gained by not only offering but requiring each graduate to sit for at least one professional industry certification exam (Domo, Lean, Six Sigma, Project Management), and complete either an internship or an independent study applying skills and tools learned throughout their coursework. Further, students will benefit from the program’s connection with industry leaders who advise program directors regarding course offerings and course content that is most valuable on the job market. Students will also be provided multiple opportunities to interact and network with industry partners on in-class projects, internships, and full-time employment post-graduation. Students will gain knowledge in core topics such as analytics for business decisions, business decision optimization, supply chain management, simulation for business applications, and quality management tools and techniques (Lean, Six Sigma, Theory of Constraints, etc.). Graduates will be prepared to enter the job market in a variety of industries such as technology, healthcare, supply chain, manufacturing, distribution, and logistics.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>Matriculation Requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete one of the following:</td>
</tr>
<tr>
<td>My Educator</td>
</tr>
<tr>
<td>IM 2010 Business Computer Proficiency (3)</td>
</tr>
<tr>
<td>IM 2600 Spreadsheet Applications (3)</td>
</tr>
<tr>
<td>Complete the following:</td>
</tr>
<tr>
<td>ECON 2010 Principles of Economics I SS (3)</td>
</tr>
<tr>
<td>ACC 2110 Principles of Accounting I (3)</td>
</tr>
<tr>
<td>MGMT 2240 Business Calculus (3)</td>
</tr>
<tr>
<td>or MATH 1100 Survey of Calculus QL (4)</td>
</tr>
<tr>
<td>MGMT 2340 Business Statistics I (3)</td>
</tr>
<tr>
<td>MKTG 220G Written Business Communication GI WE (3)</td>
</tr>
<tr>
<td>MGMT 2400 Data Analytics for Business (3)</td>
</tr>
<tr>
<td>General Education Requirements: 35 Credits</td>
</tr>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC (3)</td>
</tr>
<tr>
<td>or ENGL 1005 Literacies and Composition Across Contexts CC (5)</td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC (3)</td>
</tr>
<tr>
<td>Complete one of the following:</td>
</tr>
<tr>
<td>MATH 1090 College Algebra for Business QL (3)</td>
</tr>
<tr>
<td>MATH 1050 College Algebra QL (4)</td>
</tr>
<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
</tr>
<tr>
<td>Complete one of the following:</td>
</tr>
<tr>
<td>HIST 1700 American Civilization AS (3)</td>
</tr>
<tr>
<td>HIST 1740 US Economic History AS (3)</td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Completion of a minimum of 120 semester credits required in the BS degree.
2. At least 40 credit hours must be upper-division courses.
3. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all Woodbury School of Business courses.
4. No grade lower than a "C-" in core courses.
5. Residency hours: Minimum of 30 credit hours of business courses in the last 45 hours.
6. Completion of GE and specified departmental requirements.
7. Successful completion of at least one Global/Intercultural course.

Note: Students will be limited to nine hours of upper-division credit until matriculation is completed.

International Business, B.S.

Careers
1. Exhibit quantitative and qualitative reasoning skills applied to a variety of international business problems.
2. Analyze case studies to present solutions to international business problems.
3. Apply a variety of tools from the fields of marketing, finance, management, and organizational behavior to solve international business development problems.
4. Assess international cultural problems and propose solutions.
5. Assess and analyze business problems and present a course of action in a foreign language.

Related Careers
- Chief Executives
- General and Operations Managers
- Business Operations Specialists, All Other
- Business Teachers, Postsecondary

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 4860</td>
<td>Business Strategy Formulation and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>FIN 4180</td>
<td>International Finance Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 332G</td>
<td>Cross-Cultural Communications for International Business GI</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4870</td>
<td>International Management</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 335G</td>
<td>International Marketing GI</td>
<td>3</td>
</tr>
<tr>
<td>Language Requirement</td>
<td>For any foreign Language complete 21 credit of the course sequence 1010, 1020, 2010, 202G, 3050, 3200, and one additional language course numbered 3000 or higher (4200 recommended)</td>
<td>21</td>
</tr>
<tr>
<td>Complete 6 credits from the following list:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACC 312G</td>
<td>International Internal Auditing GI (3)</td>
<td></td>
</tr>
<tr>
<td>ECON 305G</td>
<td>International Economics GI (3)</td>
<td></td>
</tr>
<tr>
<td>HM 320G</td>
<td>Global Tourism GI (3)</td>
<td></td>
</tr>
<tr>
<td>HR 470G</td>
<td>International Human Resource Management GI (3)</td>
<td></td>
</tr>
<tr>
<td>MGMT 330G</td>
<td>Survey of International Business GI (3)</td>
<td></td>
</tr>
<tr>
<td>MGMT 481R</td>
<td>Internship (3)</td>
<td></td>
</tr>
<tr>
<td>General Electives (any course 1000 or higher)</td>
<td>8</td>
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</tbody>
</table>
Strategic Management and Operations

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete the following:

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<tr>
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<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE (2)</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>EXSC 1097</td>
<td>Fitness for Life TE</td>
</tr>
</tbody>
</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOS</td>
<td>Biology</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2010</td>
<td>Principles of Economics I SS</td>
<td>3</td>
</tr>
<tr>
<td>PHYS</td>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>Additional Biology or Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>HUM</td>
<td>Humanities Distribution</td>
<td>3</td>
</tr>
<tr>
<td>ARTS</td>
<td>Fine Arts Distribution</td>
<td>3</td>
</tr>
</tbody>
</table>

Discipline Core Requirements: 55 Credits

Business Foundation Courses

Complete one of the following: 1

My Educator

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<thead>
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<tbody>
<tr>
<td>IM 2010</td>
<td>Business Computer Proficiency (3)</td>
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<td>IM 2600</td>
<td>Spreadsheet Applications (3)</td>
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<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2110</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2240</td>
<td>Business Calculus</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MATH 1100</td>
<td>Survey of Calculus QL (4)</td>
</tr>
<tr>
<td>MGMT 2340</td>
<td>Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2400</td>
<td>Data Analytics for Business</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GI WE</td>
<td>3</td>
</tr>
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Business Core Courses:

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<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>MGMT 3000</td>
<td>Organizational Behavior WE</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3600</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3100</td>
<td>Principles of Finance</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3450</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 495R</td>
<td>Executive Lecture Series</td>
<td>1</td>
</tr>
<tr>
<td>or</td>
<td>ENTR 493R</td>
<td>Entrepreneurship Lecture Series (1)</td>
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</table>

Complete one of the following: 3

<table>
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<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ECON 305G</td>
<td>International Economics GI (3)</td>
<td></td>
</tr>
<tr>
<td>MGMT 332G</td>
<td>Cross Cultural Communications for International Business GI (3)</td>
<td></td>
</tr>
<tr>
<td>MGMT 330G</td>
<td>Survey of International Business GI (3)</td>
<td></td>
</tr>
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Program Core Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 3460</td>
<td>Scheduling, Forecasting and Inventory Management</td>
<td></td>
</tr>
<tr>
<td>MGMT 3480</td>
<td>Operations Simulation</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3700</td>
<td>Supply Chain and Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4470</td>
<td>Strategic Operational Planning</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4480</td>
<td>Management Science and Optimization</td>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MGMT 481R</td>
<td>Internship (1)</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>MGMT 490R</td>
<td>Independent Study (1)</td>
</tr>
<tr>
<td>MGMT 4860</td>
<td>Business Strategy Formulation and Implementation</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 3070</td>
<td>Total Quality Management (3)</td>
<td></td>
</tr>
<tr>
<td>MGMT 3470</td>
<td>Lean Management Systems (3)</td>
<td></td>
</tr>
<tr>
<td>MGMT 4350</td>
<td>Business Intelligence and Data Visualization (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 4400</td>
<td>Advanced Project Management (3)</td>
<td></td>
</tr>
</tbody>
</table>

Elective Requirements: 30 Credits

Complete 18 credits from the following list: 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 3345</td>
<td>Business Statistics II (3)</td>
<td></td>
</tr>
<tr>
<td>ECON 4040</td>
<td>Game Theory</td>
<td></td>
</tr>
<tr>
<td>HR 4610</td>
<td>Talent Acquisition and Performance Management (3)</td>
<td></td>
</tr>
<tr>
<td>INFO 4440</td>
<td>Enterprise Computing Environments (3)</td>
<td></td>
</tr>
<tr>
<td>MGMT 3070</td>
<td>Total Quality Management (3)</td>
<td></td>
</tr>
<tr>
<td>MGMT 3470</td>
<td>Lean Management Systems (3)</td>
<td></td>
</tr>
<tr>
<td>MGMT 4350</td>
<td>Business Intelligence and Data Visualization (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 4300</td>
<td>Marketing Data Science (3)</td>
<td></td>
</tr>
<tr>
<td>MKTG 4600</td>
<td>Customer Experience (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 3400</td>
<td>Project Management WE (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 3700</td>
<td>Materials Management (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 4000</td>
<td>Reliability Management (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 4400</td>
<td>Advanced Project Management (3)</td>
<td></td>
</tr>
</tbody>
</table>

Complete 12 credits of any courses 1000-level or higher 12

Notes:

1. My Educator score of 80% or better; IM 2010 or IM 2600 with a grade of B- or higher.
2. May not choose a course previously taken for business or program requirement.

Graduation Requirements:

1. Completion of a minimum of 120 semester credits required in the BS degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all Woodbury School of Business courses. No grade lower than a “C-“ in core and specialization courses.
3. Residency hours: Minimum of 30 credit hours of business courses through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.

NOTE: Students will be limited to 9 hours of upper-division credit until Matriculation is completed.
Operations and Supply Chain Management, B.S, 
Careers

1. Exhibit quantitative and qualitative reasoning skills applied to a variety of international business problems.
2. Analyze case studies to present solutions to international business problems.
3. Apply a variety of tools from the fields of marketing, finance, management, and organizational behavior to solve international business development problems.
4. Assess international cultural problems and propose solutions.
5. Assess and analyze business problems and present a course of action in a foreign language.

Related Careers

- Computer and Information Systems Managers
- Industrial Production Managers
- Construction Managers
- Logisticians
- Business Teachers, Postsecondary
- First-Line Supervisors of Mechanics, Installers, and Repairers
- First-Line Supervisors of Production and Operating Workers
Student Leadership and Success Studies

Student Leadership and Success Studies

The Student Leadership and Success Studies department is in the School of Education. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Student Leadership and Success Studies department, visit their website.

Student Leadership and Success Studies department

DEPARTMENT CHAIR

ECKTON, Darin Associate Professor

FACULTY

ASHMAN, Marinda G. Associate Professor
BORNs, Renee Associate Professor
ECKTON, Darin Associate Professor
GARDNER, Douglas Associate Professor
GOSLIN, Christopher Associate Professor
HAUG-BELVIN, Theresa Assistant Professor
JENSEN, Michael A. Associate Professor
JOHNSON, Benjamin Associate Professor
LAMBERT, Lisa Associate Professor
SANFT, Marni Associate Professor
WADDOUPS, Stacy D. Associate Professor
WONG, Cynthia Assistant Professor
YOAST, Tiffany Professional in Residence

Course Descriptions

Student Leadership and Success.................................................. 834
University Studies................................................................. 865

Degrees & Programs

University Studies, A.A.

Requirements

The University Studies Associate in Arts/Science is designed to provide an opportunity for students who may be potentially exploring their career and major options, or provides flexibility for those that are seeking an Associate that enables transferability or simply completion of a broad variety of curriculum options. The AS/AA UVST enables the ability to begin work toward the General Education requirements while meeting the needs of a broad variety of student circumstances.

Total Program Credits: 60

| MAT 1030 | Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors) |
| MAT 1035 | Quantitative Reasoning with Integrated Algebra QL (6) |
| STAT 1040 | Introduction to Statistics QL (3) (recommended for Social Science majors) |
| STAT 1045 | Introduction to Statistics with Algebra QL (5) |
| MATH 1050 | College Algebra QL (4) (recommended for Business, Education, Science, and Health Professions majors) |
| MATH 1055 | College Algebra with Preliminaries QL (5) |
| MATH 1090 | College Algebra for Business QL (3) (recommended for Business majors) |

Complete one of the following: 3

| HIST 1700 | American Civilization AS (3) |
| HIST 2700 | US History to 1877 AS (3) |
| and HIST 2710 | US History since 1877 AS (3) |
| HIST 1740 | US History since 1877 AS (3) |
| POLS 1000 | American Heritage SS (3) |
| POLS 1100 | American National Government AS (3) |

Complete the following: 2

| PHIL 2050 | Ethics and Values IH |
| PHIL 205G | Ethics and Values IH GI (3) |
| HLTH 1100 | Personal Health and Wellness TE |
| or EXSC 1097 | Fitness for Life TE (2) |

Distribution Courses: 8

| Biology | 3 |
| Physical Science | 3 |
| Additional Biology or Physical Science | 3 |
| Humanities | 3 |
| Fine Arts | 3 |
| Social/Behavioral Science | 3 |

Discipline Core Requirements: 25 Credits

| Any course(s) 1000 or higher | 17 |
| One Language (other than English) to include the 1010 or 1020 levels | 8 |

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. For the AA degree, completion of 8 credit hours of course work from one language.
University Studies, A.A.

**Careers**

1. Students will complete 25 credits of any 1000 level course or higher. These electives allow students to customize their curriculum to their individual needs, explore various major and career opportunities, and utilize credits toward graduation that may span a broad variety of topics.
2. Students will obtain a flexible degree that will allow for multiple career opportunities or progression into a variety of BA/BS options.
3. Students will complete General Education requirements for UVU associates level degrees.

**Related Careers**

- Postsecondary Teachers, All Other

University Studies, A.S.

**Requirements**

The University Studies Associate in Arts/Science is designed to provide an opportunity for students who may be potentially exploring their career and major options, or provides flexibility for those that are seeking an Associate that enables transferability or simply completion of a broad and major options, or provides flexibility for those that are seeking an opportunity for students who may be potentially exploring their career opportunities, and utilize credits toward graduation that curriculum to their individual needs, explore various major and career opportunities, and utilize credits toward graduation that may span a broad variety of topics.

**Total Program Credits:** 60

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Context CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030 Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (5)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL (3) (recommended for Social Science majors)</td>
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<td>STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
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<td>MATH 1050 College Algebra QL (4) (recommended for Business, Education, Science, and Health Professions majors)</td>
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<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
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</tr>
<tr>
<td>MATH 1090 College Algebra for Business QL (3) (recommended for Business majors)</td>
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</tr>
<tr>
<td>Complete one of the following:</td>
<td></td>
</tr>
<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
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</tr>
<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
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</tr>
<tr>
<td>HIST 1700 American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740 US Economic History AS (3)</td>
<td></td>
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<tr>
<td>POLS 1000 American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100 American National Government AS (3)</td>
<td></td>
</tr>
<tr>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>or PHIL 205G Ethics and Values IHIH (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 1100 Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097 Fitness for Life TE (2)</td>
<td></td>
</tr>
<tr>
<td>Distribution Courses:</td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
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<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
</tr>
<tr>
<td>Discipline Core Requirements:</td>
<td>25 Credits</td>
</tr>
<tr>
<td>Any course(s) 1000 or higher</td>
<td>25</td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

University Studies, A.S.

**Careers**

- Postsecondary Teachers, All Other

**General Education, Certificate of Completion**

**Requirements**

The Certificate of Completion in General Education is comprised of the courses that are required for completion of the general education requirements at Utah Valley University. The purpose of general education at UVU is a shared academic experience that provides students with the opportunity to explore new subjects, intellectual traditions, and perspectives; expands their awareness of the wider world; and prepares them with foundational knowledge, skills, and abilities that are expanded on in their disciplines of study in order to be successful learners and professionals positioned to contribute to their broader communities. When a student completes the requirements for the Certificate of Completion in General Education at UVU, the certificate is accepted at other USHE institutions as completing their General Education requirements.

**Total Program Credits:** 35

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>or PHIL 205G Ethics and Values IHIH (3)</td>
<td></td>
</tr>
<tr>
<td>HLTH 1100 Personal Health and Wellness TE</td>
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</tr>
<tr>
<td>or EXSC 1097 Fitness for Life TE (2)</td>
<td></td>
</tr>
<tr>
<td>Distribution Courses:</td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>Additional Biology or Physical Science</td>
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<tr>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
</tr>
<tr>
<td>Discipline Core Requirements:</td>
<td>25 Credits</td>
</tr>
<tr>
<td>Any course(s) 1000 or higher</td>
<td>25</td>
</tr>
</tbody>
</table>

**Related Careers**

- Postsecondary Teachers, All Other
Integrated College and Community Studies, Certificate of Completion

Requirements

The Certificate of Completion in Integrated College and Community Studies will prepare students with the foundational knowledge, skills, and abilities to successfully navigate independent living and employment in the community. The program will focus on the important topics of self-determination, career development and employment, academic enrichment, independent living, and campus and community engagement.

Total Program Credits: 33

Program Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICCS 1010</td>
<td>Self Determination I</td>
<td>2</td>
</tr>
<tr>
<td>ICCS 2010</td>
<td>Self Determination II</td>
<td>2</td>
</tr>
<tr>
<td>ICCS 1020</td>
<td>Living and Working in the Community I</td>
<td>2</td>
</tr>
<tr>
<td>ICCS 2020</td>
<td>Living and Working in the Community II</td>
<td>2</td>
</tr>
<tr>
<td>ICCS 1030</td>
<td>Social Skills, Sexuality, and Mature Relationships</td>
<td>1</td>
</tr>
<tr>
<td>ICCS 2030</td>
<td>Problem Solving for Adulthood</td>
<td>2</td>
</tr>
<tr>
<td>ICCS 110R</td>
<td>Career Development I</td>
<td>2</td>
</tr>
<tr>
<td>ICCS 120R</td>
<td>Career Development Practicum I</td>
<td>1</td>
</tr>
<tr>
<td>ICCS 210R</td>
<td>Career Development II</td>
<td>1</td>
</tr>
<tr>
<td>ICCS 220R</td>
<td>Career Development Practicum II</td>
<td>2</td>
</tr>
<tr>
<td>SLSS 2100</td>
<td>Major and Career Exploration</td>
<td>3</td>
</tr>
<tr>
<td>SLSS 1000</td>
<td>University Student Success</td>
<td>3</td>
</tr>
<tr>
<td>SLSS 1100</td>
<td>Stress Management</td>
<td>3</td>
</tr>
<tr>
<td>ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
<td>5</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>FIN 1060</td>
<td>Personal Finance SS</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 33 semester credits.
2. Earn a minimum 2.0 GPA for all certificate coursework (or earn credit for all certificate course work, in CR/No CR is selected).
3. Residency hours -- Minimum of 9 credit hours through course attendance at UVU

Integrated College and Community Studies, Certificate of Completion

Careers

1. Students will develop personal problem solving skills to apply to personal, career, and community challenges.
2. Students will navigate technology to support personal and career goals, gain information, and solve problems.
3. Students will develop social and communication skills associated with success in relationships across adult contexts.

Related Careers

- NO MATCH
Leadership for Personal and Social Impact, Certificate of Proficiency

Requirements

The Leadership for Personal and Social Impact certificate provides an academic setting where students gain theoretical and practical skills with principles of self-awareness and improvement that can immediately transform personal success and performance. As students learn and apply these principles and skills they will also be provided with and create their own engaging experiences to become more active contributors and stewards across a wide range of professional, volunteer, public, and private settings in their current and future local, regional, national, and international communities. Students from any academic major or minor are encouraged to enroll in and complete this certificate. Currently, two of the courses are offered online, (SLSS 1000 and SLSS 1200) so it is possible that students may choose to take those courses online. Initially, it is anticipated that the other courses will be offered on the main campus. As interest and demand increases, the Department of Student Leadership and Success Studies will reevaluate and may offer the remaining courses online.

Total Program Credits: 16

<table>
<thead>
<tr>
<th>Discipline Core Requirements</th>
<th>16 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLSS 1200</td>
<td>The 7 Habits of Highly Effective People</td>
</tr>
<tr>
<td>SLSS 2500</td>
<td>Leader--Strengths-Based Leader/Coach</td>
</tr>
<tr>
<td>SLSS 2300</td>
<td>Leader--Teacher and Mentor</td>
</tr>
<tr>
<td>SLSS 405G</td>
<td>Leader--Global Contributor GI</td>
</tr>
<tr>
<td>SLSS 4800</td>
<td>Leader Capstone--Lifelong Change Agent</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Complete 16 credits of course work.
2. Earn a minimum 2.5 GPA in all certificate course work with no grades lower than a C-.
3. Residency hours -- Minimum of 4 credits required through course attendance at UVU.

Leadership for Personal and Social Impact, Certificate of Proficiency

Careers

1. Identify personal strengths and ways to use them to coach self and others to increased performance.
2. Build interdependence by investing in mutually supportive relationships, while helping others to do the same.
3. Take personal responsibility by accepting their primary roles in determining the outcomes and experiences in their lives.
4. Develop an increasingly inclusive mindset that leads to increased quantity and quality of contributions in the community (i.e., local, regional, national and/or international).
5. Enhance their ability to accomplish tasks by successfully navigating varying hierarchical relationships within and across organizations.

Personal Development for Professional Advancement, Certificate of Proficiency

Requirements

The courses in this certificate provide a flexible way for students and their advisors to choose a customized path for foundational success in college and increased employability through theoretical and experiential learning of soft skills. Completion of this certificate can efficiently lead to the partial fulfillment of an additional certificate and associate degree.

Total Program Credits: 18

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>18 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing Academic Independence - Complete 3 credits from the following:</td>
<td></td>
</tr>
<tr>
<td>SLSS 1050 Research Skills for Student Success</td>
<td></td>
</tr>
<tr>
<td>SLSS 1000 University Student Success</td>
<td></td>
</tr>
<tr>
<td>SLSS 1190 Power Learning Strategies</td>
<td></td>
</tr>
<tr>
<td>SLSS 1195 Speed Reading</td>
<td></td>
</tr>
<tr>
<td>ENGH 1005 Literacies and Composition Across Contexts CC</td>
<td></td>
</tr>
<tr>
<td>Building Self-Knowledge for Self-Leadership - Complete 9 credits from the following:</td>
<td>9</td>
</tr>
<tr>
<td>SLSS 101R Student Success Topics</td>
<td></td>
</tr>
<tr>
<td>SLSS 103R Student Leadership Development I</td>
<td></td>
</tr>
<tr>
<td>SLSS 104R Student Leadership Development II</td>
<td></td>
</tr>
<tr>
<td>SLSS 1100 Stress Management</td>
<td></td>
</tr>
<tr>
<td>SLSS 1200 The 7 Habits of Highly Effective People</td>
<td></td>
</tr>
<tr>
<td>or SLSS 120H The 7 Habits of Highly Effective People</td>
<td></td>
</tr>
<tr>
<td>SLSS 2100 Major and Career Exploration</td>
<td></td>
</tr>
<tr>
<td>SLSS 2500 Leader--Strengths-Based Leader/Coach</td>
<td></td>
</tr>
<tr>
<td>Learning Experientially - Complete 6 credits from the following:</td>
<td>6</td>
</tr>
<tr>
<td>SLSS 2300 Leadership Mentoring II</td>
<td></td>
</tr>
<tr>
<td>SLSS 240R Mentoring Leadership Practicum</td>
<td></td>
</tr>
<tr>
<td>MAT 240R Math Mentor Leadership Practicum</td>
<td></td>
</tr>
<tr>
<td>SLSS 281R Internship</td>
<td></td>
</tr>
<tr>
<td>UVST 1100 Prior Learning Assessment Portfolio</td>
<td></td>
</tr>
<tr>
<td>UVST 289R Undergraduate Research</td>
<td></td>
</tr>
<tr>
<td>UVST 290R Community Engagement and Applied Service Learning</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Complete 18 credits of course work.
2. Earn a minimum 2.5 GPA in all certificate course work with no grades lower than a C-.
3. Residency hours -- Minimum of 5 credits required through course attendance at UVU.

Personal Development for Professional Advancement, Certificate of Proficiency

Careers

1. Gain foundational skills that lead to increased student success in future courses and programs.
2. Engage in experiential learning opportunities that enhance the acquisition of soft skills.
3. Effectively articulate college and career readiness skills acquired during the program.
## Related Careers
- Postsecondary Teachers, All Other

## University Studies, B.A.

### Requirements
The BA/BS is designed to meet the academic and professional objectives of learners whose needs are not addressed through existing degree programs. The degree assists learners in developing essential skills valued by employers and graduate schools (e.g., applied learning, critical thinking, written and oral communication, teamwork, ethical reasoning, and global understanding) within the framework of a larger discipline. Learners will complete a structured yet customized set of upperdivision courses under the guidance of an advisor and faculty mentor to ensure that standards for academic rigor at the Bachelor level are achieved. Candidates for the degree will focus on intellectual skills and integrative knowledge by enrolling in courses in a general disciplinary area with intentionally-selected, specialized knowledge courses that contribute to an integrated whole, and by completing a capstone experience that further prepares them for their chosen professions or graduate school admission. Under the direction of a faculty member, students will complete a capstone course or an internship which will involve reflection and a synthesis of learning to demonstrate achievement of the learning outcomes for the degree.

### Total Program Credits: 120

#### Matriculation Requirements:
1. An approved Plan of Study that focuses on the achievement of clearly defined personal, career, or professional goals, as part of the application process for the major.
2. Minimum 2.0 grade point average.
3. Completed 60 or more semester credit hours.

#### General Education Requirements: 36 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Complete one of the following:
- 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
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#### Discipline Core Requirements: 5 Credits

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Course Catalog 2023-2024

Utah Valley University
Student Leadership and Success Studies

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Elective Requirements: 79 Credits

Choose 27 credits from one School or College (except WSOB - 24 credit max)* 27

12 Upper Division Credits (any courses 3000-4000 level from above School or College)

15 Lower Division Credits (any courses 1000-2000 level from above School or College)

40 Elective Credits (23 Upper Division Credits and 17 Lower Division Credits)

23 Upper Division Credits

17 Lower Division Credits

Foreign Language & Humanities (Foreign Language 202G/2020 course fulfills Humanities Distribution) 12

Notes:
1. If focus area is with the Woodbury School of Business, only 21-24 credits may be used.

Graduation Requirements:
1. Completion of 120 semester credits.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. At least 40 credit hours in upper division courses.
5. Complete 16 credit hours of course work from one language to include the 1010, 1020, 2010 and 2020/2023 levels, or transferred equivalents.
6. Completion of General Education requirements.
7. Completion of specific departmental (major) requirements.
8. Successful completion of at least one Global/Intercultural course.
9. Successful completion of at least two Writing Enriched (WE) courses.

University Studies, B.A.

Careers
1. Connect prior learning and future plans to essential learning outcomes.
2. Use multidisciplinary perspectives to synthesize facts, ideas, and information to independently solve problems.
3. Communicate to a variety of stakeholders using written, verbal, or digital skills.
4. Use self-directed skills to complete project(s).
5. Use forward-thinking skills to connect prior learning to trends.

Related Careers
• Postsecondary Teachers, All Other

University Studies, B.S.

Requirements
The BA/BS is designed to meet the academic and professional objectives of learners whose needs are not addressed through existing degree programs. The degree assists learners in developing essential skills valued by employers and graduate schools (e.g., applied learning, critical thinking, written and oral communication, teamwork, ethical reasoning, and global understanding) within the framework of a larger discipline. Learners will complete a structured yet customized set up of upperdivision courses under the guidance of an advisor and faculty mentor to ensure that standards for academic rigor at the Bachelor level are achieved. Candidates for the degree will focus on intellectual and integrative knowledge by enrolling in courses in a general disciplinary area with intentionally-selected, specialized knowledge courses that contribute to an integrated whole, and by completing a capstone experience that further prepares them for their chosen professions or graduate school admission. Under the direction of a faculty mentor, students will complete a capstone course or an internship, which will involve reflection and a synthesis of learning to demonstrate achievement of the learning outcomes for the degree.

Total Program Credits: 120

Matriculation Requirements:
1. An approved Plan of Study that focuses on the achievement of clearly defined personal, career, or professional goals, as part of the application process for the major.
2. Minimum 2.0 grade point average.
3. Completed 60 or more semester credit hours.

General Education Requirements: 35 Credits

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*WSOB Concentration (additional 3 credits may be Upper or Lower Division, depending on total)
Student Leadership and Success Studies

| 15 Lower Division Credits (any courses 1000-2000 level from above School or College) |
| 53 Elective Credits |
| 23 Upper Division Credits |
| 30 Lower Division Credits |

Notes:
1. If focus area is with the Woodbury School of Business, only 21-24 credits may be used.

Graduation Requirements:
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2. Overall grade point average of 2.0 (C) or above.
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University Studies, B.S.
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1. Connect prior learning and future plans to essential learning outcomes.
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3. Communicate to a variety of stakeholders using written, verbal, or digital skills.
4. Use self-directed skills to complete project(s).
5. Use forward-thinking skills to connect prior learning to trends.

Related Careers
- Postsecondary Teachers, All Other
Technology Management

The Technology Management department is in the Scott M. Smith College of Engineering. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Technology Management department, visit their website.

Technology Management department

DEPARTMENT CHAIR
THACKERAY, Susan Assistant Professor

FACULTY
ALIN, Pauli Associate Professor
ARENDT, Anne Associate Professor
ILIKCHYAN, Armen Associate Professor
KUEHNE, Carolyn Sr. Lecturer
MERRILL, Kyle Professional In Residence
THACKERAY, Susan Assistant Professor

Course Descriptions

Apprentice.................................................................537
Technology Management........................................852

Degrees & Programs

Technology, A.A.S.

Requirements
The Associate in Applied Science (AAS) in Technology is designed for individuals seeking to work in a technical area or who have considerable work experience seeking better upward mobility in their professions. Students can receive up to 15 credit hours for extensive work experience, certifications, licenses, or apprenticeships. Additionally, students who earn certifications in many 900+ hour technical programs offered throughout the Utah Technical College system can transfer in their certificate and receive up to 30 hours of academic credit, or almost half the credit required to graduate from the AAS. Students in the AAS pathway will build on their technical education and experience by completing core and elective course options, including experiential portfolio, business computer proficiency, and supervision.

Total Program Credits: 63

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>18 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
<tr>
<td>Humanities / Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science (Tech 1010 Recommended)</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science (TECH 200G Recommended)</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 2050 Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>Discipline Core Requirements:</td>
<td>6 Credits</td>
</tr>
<tr>
<td>TECH 2010 Supervision in Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Technology, A.A.S.

Careers

1. Explain technical cross-functional teams.
2. Explain complex systems and processes.
3. Apply current and emerging technologies to problem solve and support innovation.
4. Compare business concepts and data to effect change.
5. Demonstrate professional verbal and written communication skills.

Related Careers

• NO MATCH

Advanced Manufacturing, Certificate of Proficiency

Requirements
The Certificate of Proficiency in Advanced Manufacturing is designed to provide entry-level manufacturing technician skills that are needed in expanding the manufacturing industry in Utah Valley. Although the term “advanced” might be confusing for a program providing entry-level skills, nationally this is the term that is being used. The program focuses on the basic skills used in advanced manufacturing processes expanding across the nation. The components of the certificate will include basic manufacturing skills with hands-on activities on equipment used in local facilities. Graduates of this certificate will have a basic understanding of advanced manufacturing operations with an emphasis on solving problems in the organization. While this program offers an entry-level certification for individuals pursuing a career in manufacturing, it has been designed to enable individuals the opportunity to continually expand and upgrade their applied skills as well as to maintain a thorough mastery of evolving manufacturing technologies.

Total Program Credits: 18

| IM 2010 Business Computer Proficiency | 3 |
| Discipline Elective Requirements: | 9 Credits |
| Complete 9 credits any course numbered 1000 or 2000 | 9 |
| Recommended Courses: ENGR 1000; CS 1030; DGM 1110 | |
| Approved or articulated technical credits: | 30 Credits |
| Complete 30 approved or articulated technical credits | 9 |

Notes:
1. This requirement may be satisfied by credit for prior learning (CPL), prior learning assessment (PLA) or Articulation Agreements. Up to thirty credits may be satisfied.
2. Overall grade point average of 2.0 (C) or above.
3. Residency hours - minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements
5. This degree MAY apply toward the BS in Technology Management, if the majority of course work is in a related technical area, and has been approved by the department to be used toward the BSTM.
### Technology Management

**Discipline Core Requirements:** 18 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 1050</td>
<td>Manufacturing Processes and Systems</td>
<td>3</td>
</tr>
<tr>
<td>TECH 2050</td>
<td>Introduction to Quality Management</td>
<td>3</td>
</tr>
<tr>
<td>TECH 2010</td>
<td>Supervision in Technology</td>
<td>3</td>
</tr>
<tr>
<td>TECH 281R</td>
<td>Internship in Technology (1-3)</td>
<td>1</td>
</tr>
<tr>
<td>or TECH 1000</td>
<td>Experiential Credit Portfolio Development and Assessment (2)</td>
<td></td>
</tr>
<tr>
<td>IM 2010</td>
<td>Business Computer Proficiency</td>
<td>3</td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
<tr>
<td>or EGDT 1600</td>
<td>Technical Math Algebra (3)</td>
<td></td>
</tr>
<tr>
<td>EGDT 1000</td>
<td>Introduction to Engineering Drawing and Technical Design</td>
<td>2</td>
</tr>
<tr>
<td>or EGDT 1071</td>
<td>3 Dimensional Modeling--Solidworks (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 18 semester credits.
2. Minimum grade of C- required in all courses.
3. Overall grade point average of 2.0 (C) or above.
4. Residency hours: minimum of 5 credit hours through course attendance at UVU.

**Advanced Manufacturing, Certificate of Proficiency**

**Careers**

1. Graduates will have the ability to apply technical and management principles in an advanced manufacturing environment to achieve operational excellence.
2. Graduates will apply technical skills such as quality assurance, risk analysis, process management, product management, and other necessary specialties in the field of technology management.

**Related Careers**

- Industrial Engineering Technicians

**Six Sigma Green Belt, Certificate of Proficiency**

**Requirements**

The Six Sigma Green Belt Certificate at UVU demonstrates knowledge in quality improvement and elimination of waste or defects in production processes. It can be utilized in every aspect of business such as production, human resources, information technology, and customer service. This certificate is built into the curriculum of the Bachelor of Science in Technology Management program. Students who complete this credential have high-demand, industry-recognized skill sets.

**Total Program Credits: 27**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 3000</td>
<td>Introduction to Technology Management</td>
<td>3</td>
</tr>
<tr>
<td>TECH 3010</td>
<td>Creativity Innovation and Change Management</td>
<td>3</td>
</tr>
<tr>
<td>TECH 3400</td>
<td>Project Management WE</td>
<td>3</td>
</tr>
<tr>
<td>TECH 3700</td>
<td>Materials Management</td>
<td>3</td>
</tr>
<tr>
<td>or MGMT 3470</td>
<td>Lean Management Systems (3)</td>
<td></td>
</tr>
<tr>
<td>or MGMT 3070</td>
<td>Total Quality Management (3)</td>
<td></td>
</tr>
<tr>
<td>or MGMT 3070</td>
<td>Total Quality Management (3)</td>
<td></td>
</tr>
<tr>
<td>or MGMT 3450</td>
<td>Operations Management (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 4910</td>
<td>Senior Capstone Project WE</td>
<td>3</td>
</tr>
</tbody>
</table>

**Complete one of the following for 3 credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 2020</td>
<td>Managerial Accounting (3)</td>
<td></td>
</tr>
<tr>
<td>ACC 3000</td>
<td>Financial Managerial and Cost Accounting Concepts (3)</td>
<td></td>
</tr>
<tr>
<td>STAT 1040</td>
<td>Introduction to Statistics QL</td>
<td></td>
</tr>
<tr>
<td>or STAT 1045</td>
<td>Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
<tr>
<td>or MGMT 2240</td>
<td>Business Calculus (3)</td>
<td></td>
</tr>
<tr>
<td>or MGMT 2340</td>
<td>Business Statistics I (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Graduation Requirements:**

1. Completion of a minimum of 27 credits.
2. Overall grade point average of 3.0 (B) or above. Students must complete each course with a grade “B” or higher.
3. Residency hours -- minimum of 7 credit hours through course attendance at UVU.

**Six Sigma Green Belt, Certificate of Proficiency**

**Careers**

1. Graduates will have the ability to apply Six Sigma project management principles.
2. Graduates will have the ability to apply data-driven process improvements.

**Related Careers**

- Computer and Information Systems Managers
- Industrial Production Managers
- Construction Managers
- Logisticians
- Business Teachers, Postsecondary
- First-Line Supervisors of Mechanics, Installers, and Repairers
- First-Line Supervisors of Production and Operating Workers

**Technology Management, Minor**

**Requirements**

The Technology Management Minor will provide students the opportunity to explore many aspects of technology management, including project management, quality assurance, and creativity, as well as become more aware of the issues surrounding technology. This background will also benefit such students in their quest for employment, since project management and its related skills are highly sought after by employers.

**Total Program Credits: 21**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 3000</td>
<td>Introduction to Technology Management</td>
<td>3</td>
</tr>
<tr>
<td>or MGMT 3470</td>
<td>Lean Management Systems (3)</td>
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<tr>
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<tr>
<td>TECH 4910</td>
<td>Senior Capstone Project WE</td>
<td>3</td>
</tr>
</tbody>
</table>

**Complete one of the following for 3 credits**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ACC 2020</td>
<td>Managerial Accounting (3)</td>
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</tr>
<tr>
<td>or MGMT 2340</td>
<td>Business Statistics I (3)</td>
<td></td>
</tr>
</tbody>
</table>
Effective in technical managerial and leadership roles in a business management, and statistical analysis to enable the graduate to be more effective in technical managerial and leadership roles in a business environment. The program is specifically tailored for professionals who want to advance their careers while still working full time. The entire program is available through distance learning as well as face to face and involves 30 credit hours of course work.

Total Program Credits: 30

Matriculation Requirements:
1. A bachelor's degree from a regionally accredited college/university, a nationally accredited program, or an international college or university recognized by a Ministry of Education
2. Overall undergraduate GPA of 3.0 or higher on a 4.0 scale from an accredited institution, or GPA of 3.0 or higher on a 4.0 scale from an accredited institution in last 60 semester hours (90 quarter hours) of undergraduate coursework
3. Three professional letters of recommendation
4. Official transcripts from all attended institutions of higher education
5. A personal statement

Discipline Core Requirements: 24 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 6010</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6400</td>
<td>3</td>
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<tr>
<td>TECH 6420</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6430</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6450</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6700</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6950</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6960</td>
<td>3</td>
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</table>

Elective Requirements: 6 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 6000</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6500</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6710</td>
<td>3</td>
</tr>
<tr>
<td>TECH 679R</td>
<td>3</td>
</tr>
<tr>
<td>TECH 690R</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Complete all courses with an overall GPA of 3.0 or higher
2. A grade of "C" or higher required for all courses used to satisfy graduation requirement
3. Courses must be finished within a five-year period. No courses will apply toward graduation that are older than five years
4. Graduates may not transfer more than ten semester credit hours into this master's program. Only transfer courses approved by the graduate program faculty shall be counted as approved credit for the degree
5. A minimum of 30 credits is required

Master of Science in Engineering and Technology Management, M.S.

Careers
1. Apply a business-driven approach to engineering and technology concepts.
2. Employ product and project management with the use of rationale and effective decision making.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TECH 3400</td>
<td>Project Management WE</td>
<td>3</td>
</tr>
<tr>
<td>TECH 3850</td>
<td>Quality Management in Technology</td>
<td>3</td>
</tr>
<tr>
<td>TECH 4000</td>
<td>Reliability Management</td>
<td>3</td>
</tr>
<tr>
<td>TECH 4420</td>
<td>Organization Information Technologies</td>
<td>3</td>
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</table>

Elective Requirements: 6 Credits

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<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 3010</td>
<td>Creativity Innovation and Change Management</td>
<td>3</td>
</tr>
<tr>
<td>TECH 3700</td>
<td>Materials Management (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 405G</td>
<td>Global Ethical and Professional Issues in Technology GI (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 4200</td>
<td>Technology Marketing and Customer Relationship Management (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 4400</td>
<td>Advanced Project Management (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 497R</td>
<td>Independent Study (1-3) (May select between 1 and 4 credits)</td>
<td></td>
</tr>
</tbody>
</table>

Technology Management, Minor

Careers
1. Graduates will have the ability to apply technical and management principles in a technical environment to achieve operational excellence.
2. Graduates will earn increasing levels of leadership and technical responsibility in the workplace, exhibiting life long learning and ethical and professional integrity.
3. Graduates will apply technical skills such as quality, analysis, project management, design methods, and other necessary specialties in the field of technology management.

Related Careers
- Computer and Information Systems Managers
- Industrial Production Managers
- Construction Managers
- Logisticians
- Business Teachers, Postsecondary
- First-Line Supervisors of Mechanics, Installers, and Repairers
- First-Line Supervisors of Production and Operating Workers

Master of Science in Engineering and Technology Management, M.S.

Requirements
The Engineering and Technology Management (ETM) program prepares engineering and technological professionals to make process-, product-, and project-oriented strategic and operational decisions and become leaders in the management of technology by providing the link between engineering, science, and management. It helps companies, research organizations, and governments to plan, develop, and implement technologies by specifically addressing real needs identified by industry leaders. Effective planning, selection, implementation, and management of technology, and the teams involved, is essential to the success of any business in today's complex and time-critical global markets. Students learn to apply proven evaluation concepts and implementation strategies to fast moving, technical management decisions that make the difference in both career and business success. Courses provide practicing engineers and managers of technical teams or projects with the knowledge, tools, and skills to manage projects, operations, organizations, and people. The program includes product and project management, engineering management, quality and safety management, and statistical analysis to enable the graduate to be more effective in technical managerial and leadership roles in a business environment. The program is specifically tailored for professionals who want to advance their careers while still working full time. The entire program is available through distance learning as well as face to face and involves 30 credit hours of course work.

Total Program Credits: 30

Matriculation Requirements:
1. A bachelor's degree from a regionally accredited college/university, a nationally accredited program, or an international college or university recognized by a Ministry of Education
2. Overall undergraduate GPA of 3.0 or higher on a 4.0 scale from an accredited institution, or GPA of 3.0 or higher on a 4.0 scale from an accredited institution in last 60 semester hours (90 quarter hours) of undergraduate coursework
3. Three professional letters of recommendation
4. Official transcripts from all attended institutions of higher education
5. A personal statement

Discipline Core Requirements: 24 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 6010</td>
<td>Engineering Law and Patents</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6400</td>
<td>Six Sigma Project Management</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6420</td>
<td>Finance for Technical Systems</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6430</td>
<td>Product Management Processes</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6450</td>
<td>Engineering Economics and Project Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6700</td>
<td>Data Driven Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6950</td>
<td>Engineering and Technology Projects I</td>
<td>3</td>
</tr>
<tr>
<td>TECH 6960</td>
<td>Engineering and Technology Projects II</td>
<td>3</td>
</tr>
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Elective Requirements: 6 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 6000</td>
<td>Strategic Management of Technology and Innovation in Engineering (3)</td>
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<tr>
<td>TECH 6500</td>
<td>Resource Management in Engineering and Technology (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 6710</td>
<td>Materials Management (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 679R</td>
<td>Special Topics in Engineering (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 690R</td>
<td>Independent Study (3)</td>
<td></td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Complete all courses with an overall GPA of 3.0 or higher
2. A grade of "C" or higher required for all courses used to satisfy graduation requirement
3. Courses must be finished within a five-year period. No courses will apply toward graduation that are older than five years
4. Graduates may not transfer more than ten semester credit hours into this master's program. Only transfer courses approved by the graduate program faculty shall be counted as approved credit for the degree
5. A minimum of 30 credits is required

Master of Science in Engineering and Technology Management, M.S.

Careers
1. Apply a business-driven approach to engineering and technology concepts.
2. Employ product and project management with the use of rationale and effective decision making.
Technology Management

3. Improve company practices using current technology, analysis, and design. Upon successful completion of this program, students will be able to make strategic and operational decisions in the management of technology by providing the link between engineering, science, and management.

Technology Management, B.S.

Requirements

The Bachelor of Science in Technology Management curriculum is designed to prepare individuals with science, business and technical skills required for the management of people and systems in technology-based industries, government agencies, and non-profit organizations. Includes instruction in computer applications, general management principles, production and operations management, project management, quality control, safety and health issues, and statistics.

Total Program Credits: 120

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing CC</td>
<td>3</td>
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<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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</tr>
<tr>
<td>ENGL 2010 Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>STAT 1040 Introduction to Statistics QL</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following: 3

| HIST 2700 US History to 1877 AS (3) | |
| and HIST 2710 US History since 1877 AS (3) | |
| HIST 1700 American Civilization AS (3) | |
| HIST 1740 US Economic History AS (3) | |
| POLS 1000 American Heritage SS (3) | |
| POLS 1100 American National Government AS (3) | |

Complete the following:

| PHIL 2050 Ethics and Values IH | 3 |
| HLTH 1100 Personal Health and Wellness TE | 2 |
| or EXSC 1097 Fitness for Life TE (2) | |

Distribution Courses:

| Biology | 3 |
| Physical Science | 3 |
| Additional Biology or Physical Science (TECH 1010 recommended) | 3 |
| Humanities | 3 |
| Fine Arts | 3 |
| Social/Behavioral Science (TECH 200G recommended) | 3 |

Discipline Core Requirements: 34 Credits

| IM 2010 Business Computer Proficiency | 3 |
| TECH 2010 Supervision in Technology | 3 |
| TECH 3000 Introduction to Technology Management | 3 |
| TECH 3010 Creativity Innovation and Change Management | 3 |

| TECH 301R Technology Lecture Series | 1 |
| TECH 3400 Project Management WE | 3 |
| TECH 3850 Quality Management in Technology | 3 |
| TECH 405G Global Ethical and Professional Issues in Technology GI | 3 |
| TECH 4420 Organization Information Technologies | 3 |
| TECH 4910 Senior Capstone Project WE | 3 |
| ACC 3000 Financial Managerial and Cost Accounting Concepts | 3 |
| HR 3430 Introduction to Human Resource Management | 3 |

Discipline Elective Requirements: 12 Credits

Complete 12 credits from the following upper division courses:

| TECH 3700 Materials Management (3) | |
| TECH 4000 Reliability Management (3) | |
| TECH 4200 Technology Marketing and Customer Relationship Management (3) | |
| TECH 4400 Advanced Project Management (3) | |
| TECH 481R Internship (1-3) (Up to 3 credits may be selected) | |
| TECH 489R Undergraduate Research in Technology Management (1-3) | |
| TECH 490R Current Topics in Technology Management (3) | |
| TECH 497R Independent Study (1-3) (Up to 4 credits may be selected) | |
| ENTR 3170 Entrepreneurship: Feasibility Analysis (3) | |
| LEGL 3000 Business Law (3) | |
| MGMT 3470 Lean Management Systems (3) | |
| ENGL 3300 Collaborative Communication for Technology Professions (3) | |

Electives: 9 Credits

Complete 9 credits from any course numbered 1000 or higher:

Recommended courses: ENGR 1000; CS 1030; DGM 1110

Approved or Articulated Technical Credits: 30 Credits

Complete 30 credits of approved or articulated technical credits

Notes:

1. This requirement may be satisfied by credit for prior learning (CPL), prior learning assessment (PLA) or Articulation Agreements. Up to thirty credits may be satisfied.

Graduation Requirements:

1. Completion of a minimum of 120 semester credits: a minimum of 40 credits must be upper division.
2. Overall grade point average of 2.0 (C) or above.
3. No grade lower than a C- in any TECH course.
4. Residency hours: Minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. Completion of General Education (GE) and specified departmental requirements.
6. Successful completion of at least one Global/Intercultural course.
7. Successful completion of at least two Writing Enriched (WE) courses.

Technology Management, B.S.

Careers

Program Learning Outcomes

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Manage and develop technical cross-functional teams.</td>
</tr>
<tr>
<td>2.</td>
<td>Manage and develop complex systems and processes.</td>
</tr>
<tr>
<td>3.</td>
<td>Assess current and emerging technologies to problem solve and support innovation.</td>
</tr>
<tr>
<td>4.</td>
<td>Analyze business concepts and data to effect change.</td>
</tr>
<tr>
<td>5.</td>
<td>Communicate with a wide range of internal stakeholders and various outside communities.</td>
</tr>
</tbody>
</table>

Related Careers

- Computer and Information Systems Managers
- Industrial Production Managers
- Construction Managers
- Logisticians
- Business Teachers, Postsecondary
- First-Line Supervisors of Mechanics, Installers, and Repairers
- First-Line Supervisors of Production and Operating Workers
Technology Management Graduate Programs

Technology Management Graduate Program

The Master of Science in Engineering and Technology Management Graduate Program is in the Scott M. Smith College of Engineering. To find the most up-to-date information, including Program Learning Outcomes for the Engineering and Technology Management Graduate Program, visit their website.

Master of Science in Engineering and Technology Management Graduate Program

Course Descriptions

Technology Management..................................................................................852
Theatrical Arts for Stage and Screen

Theatrical Arts for Stage and Screen

The Theatre department is in the School of the Arts. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Theatre department, visit their website.

Course Descriptions

Fine Arts Music and Theatre ................................................................. 704
Theatre .................................................................................................. 856

Degrees & Programs

Theatre Arts, A.S.

Requirements

The AS in Theatre Arts provides students with foundational training in Acting and Musical Theatre that prepares them to complete the Acting emphasis or Musical Theatre emphasis in the BFA Theatre Arts degree. The AS Theatre Arts degree offers classes in stagecraft and script analysis that are needed to complete the BFA core as well as acting, voice, and movement classes that are needed to complete the BFA emphases in Acting and Musical Theatre.

Total Program Credits: 60

Course Catalog 2023-2024

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Course Catalog 2023-2024

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Theatrical Arts for Stage and Screen

Theatre Arts, A.S.

Careers

1. Literacy: Students will have a working knowledge of theatrical history, methods, and technologies that will assist them in understanding and creating plays and other theatrical events.
2. Artistry: Students will demonstrate creative and collaborative skills in their area(s) of focus.
3. Professionalism: Students will demonstrate entry level professional competency that can be applied to their field or further study.

Related Careers

• Art, Drama, and Music Teachers, Postsecondary
• Actors
• Producers and Directors
• Entertainers and Performers, Sports and Related Workers, All Other

Theatre Studies, A.A.

Requirements

The AA in Theatre Studies provides students with foundational courses in theatre arts in acting, stagecraft, script and text analysis, and theatre for children and youth. The AA Theatre Studies degree stacks with the BA Theatre Studies degree, which both reflect a liberal arts approach to the study of theatre. It also stacks with the BFA Theatre Design and Production emphasis.

Total Program Credits: 60

General Education Requirements: 35 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Context (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3) (recommended for Humanities or Arts majors)</td>
<td>3</td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following:

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</thead>
<tbody>
<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
<td></td>
</tr>
<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
<td></td>
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<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
<td></td>
</tr>
</tbody>
</table>

Distribution Courses:

<table>
<thead>
<tr>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology - Choose from Distribution List</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science - Choose from Distribution List</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional Biology or Physical Science - Choose from Distribution List 3

Humanities - Choose from Distribution List 3

THEA 1013 Introduction to Theatre FF WE 3

Social/Behavioral Science - Choose from Distribution List 3

Discipline Core Requirements: 17 Credits

Complete the following:

<table>
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<tr>
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<td>Acting I FF</td>
<td>3</td>
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<tr>
<td>THEA 1513</td>
<td>Stagecraft I</td>
<td>2</td>
</tr>
<tr>
<td>THEA 1514</td>
<td>Stagecraft I Lab</td>
<td>1</td>
</tr>
<tr>
<td>THEA 159R</td>
<td>Production Practicum for Stage and Screen I</td>
<td>1</td>
</tr>
<tr>
<td>THEA 1713</td>
<td>Script and Text Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2211</td>
<td>Theatre for Children and Youth</td>
<td>3</td>
</tr>
<tr>
<td>or THEA 2741</td>
<td>Scriptwriting for Stage</td>
<td></td>
</tr>
<tr>
<td>THEA 2513</td>
<td>Introduction to Design for Stage and Screen</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2514</td>
<td>Introduction to Design for Stage and Screen Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

Elective Requirements: 8 Credits

Complete 8 credits in the same foreign language 8

Graduation Requirements:

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.5 (C+) or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Theatre Studies, A.A.

Careers

1. Literacy: Students will have a working knowledge of theatrical history, methods, and technologies that will assist them in understanding and creating plays and other theatrical events.
2. Artistry: Students will demonstrate creative and collaborative skills in their area(s) of focus.
3. Professionalism: Students will demonstrate entry level professional competency that can be applied to their field or further study.

Related Careers

• Art, Drama, and Music Teachers, Postsecondary
• Actors
• Producers and Directors
• Entertainers and Performers, Sports and Related Workers, All Other

Theatre Technology, Certificate of Proficiency

Requirements

The Certificate of Proficiency in Theatre Technology provides students with basic training in theatre technology. The department will offer the certificate for students completing beginning courses in stagecraft, costume construction, lighting and sound operation, makeup, shop and backstage procedures, basic design principles, and drafting.
Total Program Credits: 27

**Discipline Core Requirements:** 24 Credits

Complete the following courses:

<table>
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<tbody>
<tr>
<td>THEA 1013</td>
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<tr>
<td>THEA 159R</td>
<td>Production Practicum for Stage and Screen I</td>
<td>1</td>
</tr>
<tr>
<td>THEA 2203</td>
<td>Costume Construction I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2204</td>
<td>Costume Construction I Lab</td>
<td>1</td>
</tr>
<tr>
<td>THEA 2513</td>
<td>Introduction to Design for Stage and Screen</td>
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</tr>
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<td>Introduction to Design for Stage and Screen Lab</td>
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</tr>
<tr>
<td>THEA 2531</td>
<td>Introduction to Lighting and Sound</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2574</td>
<td>Drafting for Theatre Design</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Requirements:** 3 Credits

Any THEA courses 1000 or higher 3

**Graduation Requirements:**

1. Completion of a minimum of 27 semester credits.
2. Minimum grade of C- required in all courses.
3. Overall grade point average 2.0 (C) or above.
4. Residency hours: minimum of 12 credit hours through course attendance at UVU.

**Theatre Technology, Certificate of Proficiency Careers**

1. Execute basic makeup application skills for stage, including corrective, glamour, age, stylized, putty, crepe hair, and wig application.
2. Identify and demonstrate backstage skills required to plan and produce scenery, props, and lighting and sound for theatrical productions.
3. Employ costume construction technologies using a commercial pattern and demonstrate measuring and fitting techniques.

**Related Careers**

- Art, Drama, and Music Teachers, Postsecondary
- Set and Exhibit Designers

**Theatre Studies, Minor Requirements**

The minor in Theatre Arts serves as a supplement to students from all other disciplines to pursue their interest and cultivate their talents in theatre while pursuing a major in a high-demand field. It also helps secondary education majors in other subject areas to qualify students for a teaching endorsement in theatre. English teaching majors frequently complete a minor in theatre to enrich their teaching of plays and to help prepare them to qualify for an additional subject endorsement in theatre.

Total Program Credits: 22

**Matriculation Requirements:**

1. Admitted to a bachelor degree program at UVU.

**Theatre Arts - Acting Emphasis, B.F.A. Requirements**

The BFA Acting Emphasis provides conservatory-style training that allows greater depth of focus in acting performance. It requires application and audition prior to admission. The degree includes hands-on, intensive work in acting techniques for stage and screen, movement, voice, and improvisation. The degree also provides performance opportunities that prepare students for professional careers in acting.

Total Program Credits: 126

**Matriculation Requirements:**

1. Admission is competitive and based on successful evaluation of student's performance audition or production portfolio.

**General Education Requirements:**

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<td>Physical Science (Students in the Sound track of the BFA Theatre Design &amp; Production Emphasis are strongly recommended to take PHYS 1700 Physics of Sound)</td>
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<td></td>
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<td>3</td>
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<tr>
<td>HUM 1010</td>
<td>Humanities Through the Arts</td>
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</tr>
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<td>THEA 1713</td>
<td>Script and Text Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3611</td>
<td>Directing Actors for Stage and Screen</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3721</td>
<td>Theatre History and Literature I WE</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3722</td>
<td>Theatre History and Literature II</td>
<td>3</td>
</tr>
<tr>
<td>THEA 481R</td>
<td>Theatre Internship (1-8)</td>
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<tr>
<td>Complete 4 credits of any THEA, MUSC, DANC, or ART course 1000 level or higher</td>
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Emphasis Requirements:

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<tbody>
<tr>
<td>THEA 1113</td>
<td>Voice and Speech I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2033</td>
<td>Acting II</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2127</td>
<td>Voiceover Acting</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2131</td>
<td>Movement for the Actor I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2156</td>
<td>Group Voice for Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3033</td>
<td>Acting III</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3113</td>
<td>Acting for Film</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3115</td>
<td>Improvisation I - BFA</td>
<td>3</td>
</tr>
<tr>
<td>THEA 311R</td>
<td>Improvisation II-Performance Team - BFA</td>
<td>2</td>
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<tr>
<td>THEA 3122</td>
<td>Voice and Speech II-BFA</td>
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<tr>
<td>THEA 3123</td>
<td>Acting in Accent - BFA</td>
<td>3</td>
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<tr>
<td>THEA 3131</td>
<td>Movement for the Actor II-BFA</td>
<td>3</td>
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<tr>
<td>THEA 3133</td>
<td>Stage Combat</td>
<td>3</td>
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<tr>
<td>THEA 3151</td>
<td>Acting for Musical Theatre I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3154</td>
<td>Dance for Musical Theatre I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 319R</td>
<td>Performance Practicum for Stage and Screen (This is a 1 credit course to be completed 3 times)</td>
<td>2</td>
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<tr>
<td>THEA 4114</td>
<td>Film Acting II</td>
<td>3</td>
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<tr>
<td>THEA 4115</td>
<td>Acting Styles-BFA</td>
<td>3</td>
</tr>
<tr>
<td>THEA 4117</td>
<td>Auditioning and the Business - BFA</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 126 semester credits; a minimum of 40 credits must be upper division.
2. Overall grade point average of 3.0 or higher.
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

Theatre Arts - Acting Emphasis, B.F.A.

Careers

1. Literacy: Students will have a working knowledge of theatrical history, methods, and technologies that will assist them in understanding and creating plays and other theatrical events.
2. Artistry: Students will demonstrate creative and collaborate skills in their area(s) of focus.
3. Professionalism: Students will demonstrate entry level professional competency that can be applied to their field or further study.

Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Actors
- Producers and Directors
- Entertainers and Performers, Sports and Related Workers, All Other

Theatre Arts - Musical Theatre, B.F.A.

Requirements

In the Bachelor of Fine Arts program, Acting students receive extensive training in acting, voice, movement, and auditioning, while Musical Theatre students receive extensive training in movement, dance, and vocal and singing technique, as well as acting. Theatre Design and Production students receive extensive design in conceptualization, stage management, costuming, lighting, makeup, scenic design, and rendering.

Total Program Credits: 128

Matriculation Requirements:

1. Admission is competitive and based on successful evaluation of student's performance audition or production portfolio.

General Education Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
<td></td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
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<td>3</td>
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<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
<td></td>
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</tbody>
</table>
## THEA 3152 Acting for Musical Theatre II - BFA 3
## THEA 3154 Dance for Musical Theatre I 3
## THEA 3155 Dance for Musical Theatre II - BFA 3
## THEA 319R Performance Practicum for Stage and Screen 3
## THEA 3725 Musical Theatre History 3
## THEA 4115 Acting Styles-BFA 3
## THEA 415R Musical Theatre Workshop - BFA 4
## THEA 4117 Auditioning and the Business - BFA 3
## THEA 4119 Senior Showcase and Career Management - BFA 3
## THEA 484R Singing Techniques for Actors II-BFA (1 credit, must be repeated for 4 credits) 4

### Graduation Requirements:

1. Completion of a minimum of 126 semester credits; a minimum of 40 credits must be upper division.
2. Overall grade point average of 3.0 or higher.
3. Residency hours--minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

### Theatre Arts - Musical Theatre, B.F.A. Careers

1. **Artistry**: Students will demonstrate creative and collaborative skills in their area(s) of focus.
2. **Professionalism**: Students will demonstrate entry level professional competency that can be applied to their field or further study.
3. **Literacy**: Students will have a working knowledge of theatrical history, methods, and technologies that will assist them in understanding and creating plays and other theatrical events.

### Related Careers

- Art, Drama, and Music Teachers, Postsecondary
- Actors
- Producers and Directors
- Entertainers and Performers, Sports and Related Workers, All Other

## Theatre Arts - Theatre Design and Production Emphasis, B.F.A.

### Requirements

The BFA Theatre Production and Design Emphasis provides conservatory-style training that allows greater depth of focus in costume, lighting and scenic design and construction, sound design, stage management, and technical direction. It requires portfolio submission and interview prior to admission. The degree includes hands-on intensive work in theatre design, culminating in designing for a main season department production. The emphasis prepares students for professional careers as designers and technicians.

### Total Program Credits: 126

### Matriculation Requirements:

1. Admission is competitive and based on successful evaluation of student’s performance audition or production portfolio.
Theatrical Arts for Stage and Screen

**General Education Requirements:** 35 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Distribution</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
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</tr>
<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
<td></td>
</tr>
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</table>

Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
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<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
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<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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Complete the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Distribution</th>
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</thead>
<tbody>
<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
<td>2</td>
</tr>
<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
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</table>

**Distribution Courses:**

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Biology</td>
<td>Physical Science (Students in the Sound track of the BFA Theatre Design &amp; Production Emphasis are strongly recommended to take PHYS 1700 Physics of Sound)</td>
<td>3</td>
</tr>
<tr>
<td>or Additional Biology or Physical Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HUM 1010</td>
<td>Humanities Through the Arts HH</td>
<td>3</td>
</tr>
<tr>
<td>THEA 1013</td>
<td>Introduction to Theatre WE (Majors only section)</td>
<td>3</td>
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</tbody>
</table>

Social/Behavioral Science 3

**Discipline Core Requirements:** 28 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEA 1033</td>
<td>Acting I FF</td>
<td>3</td>
</tr>
<tr>
<td>THEA 1223</td>
<td>Makeup I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 1513</td>
<td>Stagecraft I</td>
<td>2</td>
</tr>
<tr>
<td>THEA 1514</td>
<td>Stagecraft I Lab</td>
<td>1</td>
</tr>
<tr>
<td>THEA 159R</td>
<td>Production Practicum for Stage and Screen I</td>
<td>1</td>
</tr>
<tr>
<td>THEA 1713</td>
<td>Script and Text Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3611</td>
<td>Directing Actors for Stage and Screen</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3721</td>
<td>Theatre History and Literature I WE</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3722</td>
<td>Theatre History and Literature II</td>
<td>3</td>
</tr>
<tr>
<td>THEA 481R</td>
<td>Theatre Internship (1-8)</td>
<td>2</td>
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Complete 4 credits of any THEA, MUSC, DANC, or ART course 1000 level or higher 4

**Emphasis Requirements:** 42 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ART 1020</td>
<td>Basic Drawing for Non-Majors FF</td>
<td>3</td>
</tr>
<tr>
<td>ART 1650</td>
<td>Watercolor FF</td>
<td>3</td>
</tr>
<tr>
<td>ARTH 2720</td>
<td>Renaissance Through Contemporary Art History FF (Students in the Sound track should take MUSC 1100; students in other tracks should take ARTH 2720)</td>
<td>3</td>
</tr>
<tr>
<td>or MUSC 1100</td>
<td>Fundamentals of Music FF (3)</td>
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<tr>
<td>THEA 2203</td>
<td>Costume Construction I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2204</td>
<td>Costume Construction I Lab</td>
<td>1</td>
</tr>
<tr>
<td>THEA 2513</td>
<td>Introduction to Design for Stage and Screen</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2514</td>
<td>Introduction to Design for Stage and Screen Lab</td>
<td>1</td>
</tr>
<tr>
<td>THEA 2515</td>
<td>Rendering for Theatre</td>
<td>3</td>
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<tr>
<td>THEA 2517</td>
<td>Visual Concepts in Theatre</td>
<td>3</td>
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<tr>
<td>THEA 257R</td>
<td>Assistant Practical Design</td>
<td>1</td>
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<tr>
<td>THEA 3531</td>
<td>Lighting Design I</td>
<td>3</td>
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<tr>
<td>THEA 3535</td>
<td>Lighting Design I Lab</td>
<td>1</td>
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<tr>
<td>THEA 3541</td>
<td>Costume Design I</td>
<td>3</td>
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<tr>
<td>THEA 3545</td>
<td>Costume Design I Lab</td>
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<tr>
<td>THEA 3571</td>
<td>Scenic Design I</td>
<td>3</td>
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<tr>
<td>THEA 3575</td>
<td>Scenic Design I Lab</td>
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<tr>
<td>THEA 457R</td>
<td>Practical Design</td>
<td>2</td>
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<tr>
<td>THEA 4981</td>
<td>Portfolio</td>
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<tr>
<td>THEA 4995</td>
<td>Senior Project in Design</td>
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Complete 6 credits from the following 6

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<tr>
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<tbody>
<tr>
<td>DGM 2130</td>
<td>Digital Audio Essentials (3)</td>
<td></td>
</tr>
<tr>
<td>PHIL 3800</td>
<td>Aesthetics (3)</td>
<td></td>
</tr>
<tr>
<td>or HUM 3800</td>
<td>Aesthetics (3)</td>
<td></td>
</tr>
<tr>
<td>THEA 2574</td>
<td>Drafting for Theatre Design (3)</td>
<td></td>
</tr>
<tr>
<td>THEA 259R</td>
<td>Production Practicum for Stage and Screen II (1)</td>
<td></td>
</tr>
<tr>
<td>THEA 3514</td>
<td>Period Styles for Theatre Design (3)</td>
<td></td>
</tr>
<tr>
<td>THEA 3241</td>
<td>Storytelling (3)</td>
<td></td>
</tr>
<tr>
<td>THEA 3561</td>
<td>Stage Management I (3)</td>
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<tr>
<td>THEA 3251</td>
<td>Puppetry (3)</td>
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<tr>
<td>THEA 359R</td>
<td>Production Practicum for Stage and Screen III (1)</td>
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<tr>
<td>THEA 3625</td>
<td>Development and Fundraising for the Arts (3)</td>
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<tr>
<td>THEA 451R</td>
<td>Special Topics in Theatre Design and Technology (1-3)</td>
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<tr>
<td>THEA 4621</td>
<td>Theatre Administration I (3)</td>
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<tr>
<td>THEA 454R</td>
<td>Special Topics in Costume Construction (1-3)</td>
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<tr>
<td>THEA 457R</td>
<td>Practical Design (1-3)</td>
<td></td>
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<tr>
<td>THEA 490R</td>
<td>Independent Study (1-3)</td>
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<tr>
<td>THEA 491R</td>
<td>Production Practicum for Stage and Screen II (1)</td>
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Complete 15 credits from one of the following tracks 15

**COSTUME TRACK**

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<tbody>
<tr>
<td>THEA 2541</td>
<td>Costume History G (3)</td>
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</tr>
<tr>
<td>THEA 3223</td>
<td>Makeup II (3)</td>
<td></td>
</tr>
<tr>
<td>THEA 3542</td>
<td>Costume Construction II (3)</td>
<td></td>
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</tbody>
</table>
THEA 4546 Digital Costume Design (3)
THEA 4547 Costume Design II (3)

SCENERY TRACK
THEA 2574 Drafting for Theatre Design (3)
THEA 3511 Stagecraft II (3)
THEA 3514 Period Styles for Theatre Design (3)
THEA 3573 Scenic Painting (3)
THEA 4577 Scenic Design II (3)

LIGHTING TRACK
THEA 2574 Drafting for Theatre Design (3)
THEA 3514 Period Styles for Theatre Design (3)
THEA 3521 Sound Design I (3)
THEA 4535 Multimedia Design for Stage (3)
THEA 4537 Lighting Design II (3)

TECHNICAL DIRECTION TRACK
THEA 2574 Drafting for Theatre Design (3)
THEA 3511 Stagecraft II (3)
THEA 3514 Period Styles for Theatre Design (3)
THEA 3521 Sound Design I (3)
THEA 3565 Technical Direction for the Stage (3)

STAGE MANAGEMENT TRACK
THEA 3514 Period Styles for Theatre Design (3)
THEA 3521 Sound Design I (3)
THEA 3561 Stage Management I (3)
THEA 3625 Development and Fundraising for the Arts (3)
THEA 4561 Stage Management II (3)

SOUND TRACK
DGM 3460 Live Sound Reinforcement (3)
THEA 3511 Stagecraft II (3)
THEA 3521 Sound Design I (3)
THEA 4522 Sound Design II (3)
THEA 3565 Technical Direction for the Stage (3)

Graduation Requirements:
1. Completion of a minimum of 126 semester credits; a minimum of 40 credits must be upper division.
2. Overall grade point average of 3.0 or higher.
3. Residency hours—minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.

Theatre Arts - Theatre Design and Production Emphasis, B.F.A.

Careers
1. Literacy: Students will have a working knowledge of theatrical history, methods, and technologies that will assist them in understanding and creating plays and other theatrical events.
2. Artistry: Students will demonstrate creative and collaborate skills in their area(s) of focus.

Related Careers
- Art, Drama, and Music Teachers, Postsecondary
- Actors
- Producers and Directors
- Entertainers and Performers, Sports and Related Workers, All Other

Theatre Education, B.S.

Requirements
The BS in Theatre Education prepares students with core knowledge of the practice and history of theatre as well as the state and national standards for secondary school teaching and directing. Theatre courses prepare students to teach middle and high students in performance, theatre history, script analysis, and design and production. The degree includes 24 credits in pedagogy in the School of Education as well as supervised student teaching. Graduates earn Utah secondary school teaching certification and are prepared to enter careers as professional theatre teachers.

Total Program Credits: 125

Matriculation Requirements:
1. ENGL and MATH QL course must have a grade C or higher.
2. GPA of 3.0 or higher with no grade lower than a C in content area courses.
3. Completion of all General Education requirements and 70% of content area courses.
4. Pass LiveScan Criminal Background Check

General Education Requirements:
- ENGL 1010 Introduction to Academic Writing CC 3
- or ENGH 1005 Literacies and Composition Across Contexts CC (5)
- ENGL 2010 Intermediate Academic Writing CC 3
- MAT 1030 Quantitative Reasoning QL 3
- or MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)
- HIST 1700 American Civilization AS (3)
- or HIST 2700 US History to 1877 AS (3)
- and HIST 2710 US History since 1877 AS (3)
- HIST 1740 US Economic History AS (3)
- POLS 1000 American Heritage SS (3)
- or POLS 1100 American National Government AS (3)

Complete one of the following:
- PHIL 2050 Ethics and Values IH 3
- HLTH 1100 Personal Health and Wellness TE 2
- or EXSC 1097 Fitness for Life TE (2)

Distribution Courses:
- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities 3
Theatrical Arts for Stage and Screen

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>THEA 1013</td>
<td>Introduction to Theatre FF WE</td>
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<td>THEA 1033</td>
<td>Acting I F</td>
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<tr>
<td>THEA 1513</td>
<td>Stagecraft I</td>
<td>2</td>
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<td>THEA 1514</td>
<td>Stagecraft I Lab</td>
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<tr>
<td>THEA 159R</td>
<td>Production Practicum for Stage and Screen</td>
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<tr>
<td>THEA 1713</td>
<td>Script and Text Analysis I</td>
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<td>THEA 2033</td>
<td>Acting II 1</td>
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<td>THEA 2111</td>
<td>Theatre for Children and Youth</td>
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<td>THEA 2513</td>
<td>Introduction to Design for Stage and Screen</td>
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<td>THEA 2514</td>
<td>Introduction to Design for Stage and Screen Lab</td>
<td>1</td>
</tr>
<tr>
<td>THEA 2741</td>
<td>Scriptwriting for Stage</td>
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<td>THEA 3511</td>
<td>Stagecraft II</td>
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<tr>
<td>THEA 3561</td>
<td>Stage Management I</td>
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<tr>
<td>THEA 3611</td>
<td>Directing Actors for Stage and Screen</td>
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<td>THEA 3612</td>
<td>Directing Actors for the Stage</td>
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<td>THEA 3721</td>
<td>Theatre History and Literature I WE</td>
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<td>THEA 3722</td>
<td>Theatre History and Literature II</td>
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<tr>
<td>THEA 4200</td>
<td>Theatre and Drama in the Secondary School</td>
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Theatre Arts Education Technical Theatre Requirement. Complete 14 credits from the following courses:

<table>
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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>THEA 1223</td>
<td>Makeup I (3)</td>
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<tr>
<td>THEA 2531</td>
<td>Introduction to Lighting and Sound (3)</td>
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<tr>
<td>THEA 2574</td>
<td>Drafting for Theatre Design (3)</td>
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<tr>
<td>THEA 3514</td>
<td>Period Styles for Theatre Design (3)</td>
<td></td>
</tr>
<tr>
<td>THEA 3521</td>
<td>Sound Design I (3)</td>
<td></td>
</tr>
<tr>
<td>THEA 3531</td>
<td>Lighting Design I (3)</td>
<td></td>
</tr>
<tr>
<td>THEA 3535</td>
<td>Lighting Design I Lab (1)</td>
<td></td>
</tr>
<tr>
<td>THEA 3541</td>
<td>Costume Design I (3)</td>
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<tr>
<td>THEA 3545</td>
<td>Costume Design I Lab (1)</td>
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<tr>
<td>THEA 3571</td>
<td>Scenic Design I (3)</td>
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<tr>
<td>THEA 3575</td>
<td>Scenic Design I Lab (1)</td>
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</tr>
<tr>
<td>THEA 3573</td>
<td>Scenic Painting (3)</td>
<td></td>
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</tbody>
</table>

Secondary Education Licensure Requirements. Complete the following: Must be completed with a grade of B- or higher.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>EDSC 1010</td>
<td>Introduction to Education</td>
<td>2</td>
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<tr>
<td>EDSC 3000</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 325G</td>
<td>Equitable Technology Integration GI</td>
<td>2</td>
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<tr>
<td>EDSC 4200</td>
<td>Classroom Management I</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4250</td>
<td>Classroom Management II</td>
<td>2</td>
</tr>
<tr>
<td>EDSC 4440</td>
<td>Content Area Literacies</td>
<td>3</td>
</tr>
<tr>
<td>EDSC 445G</td>
<td>Multicultural Instruction ESL GI</td>
<td>3</td>
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</tbody>
</table>

EDSC 455G Secondary Curriculum Instruction and Assessment GI 3
EDSC 4850 Student Teaching Secondary 8
EDSC 4990 Teacher Performance Assessment Project WE 2
EDSP 340G Exceptional Students GI 2
Notes:
1. For Theatre Arts Education students, the prerequisite of THEA 1113 Voice and Speech I will be waived.

Graduation Requirements:
1. Completion of a minimum of 125 semester credits, 40 of which must be upper division.
2. Overall GPA of 3.0 (B) or above with no grade lower than a C in major required content courses and no grade lower than a B- in Licensure and Methods courses.
3. Residency hours - minimum of 30 credit hours through course attendance at UVU, with at least 10 hours in the last 45 hours.
4. Successful completion of at least one Global/Intercultural course.
5. Successful completion of at least two Writing Enriched (WE) courses.

Theatre Education, B.S.
Careers
1. Literacy: Students will have a working knowledge of theatrical history, methods, and technologies that will assist them in understanding and creating plays and other theatrical events.
2. Artistry: Students will demonstrate creative and collaborate skills in their area(s) of focus.
3. Professionalism: Students will demonstrate entry level professional competency that can be applied to their field or further study.
4. Students will understand the principles of teaching theatrical arts in a secondary school environment. Students will exhibit a strong understanding, knowledge and skill set for the teaching of theatrical arts in a secondary school environment to include: Content Knowledge, Pedagogical Knowledge, Instructional use of objectives, methods, outcomes, activities, strategies and technologies, Instructional Communication Skills, Assessment, Management of Classroom, Learning Environment, Professionalism, and Collaboration.

Related Careers
- Art, Drama, and Music Teachers, Postsecondary
- Actors
- Producers and Directors
- Entertainers and Performers, Sports and Related Workers, All Other

Theatre Studies, B.A.
Requirements
The BA in Theatre Studies is a broad-based liberal arts degree that provides a foundation in script analysis, theatre history, dramatic literature, stagecraft, directing, stage management, and acting and allows students to choose courses in performance, design, and technical production; dramaturgy, film studies, scriptwriting, theatre administration, and theatre for children and youth that will help them to fulfill their vocational or avocational objectives or to prepare them for graduate studies in theatre.

Total Program Credits: 120
General Education Requirements: 36 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
<td>3</td>
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<tr>
<td>or ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC</td>
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<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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Complete one of the following: 3

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<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
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<tr>
<td>MAT 1035</td>
<td>Quantitative Reasoning with Integrated Algebra QL (6)</td>
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Complete one of the following: 3

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HIST 1700</td>
<td>American Civilization AS (3)</td>
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<tr>
<td>HIST 2700</td>
<td>US History to 1877 AS (3)</td>
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<tr>
<td>and HIST 2710</td>
<td>US History since 1877 AS (3)</td>
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<tr>
<td>HIST 1740</td>
<td>US Economic History AS (3)</td>
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<tr>
<td>POLS 1000</td>
<td>American Heritage SS (3)</td>
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<tr>
<td>POLS 1100</td>
<td>American National Government AS (3)</td>
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Complete the following: 2

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<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
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<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
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<tr>
<td>or EXSC 1097</td>
<td>Fitness for Life TE (2)</td>
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Distribution Courses:

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<tr>
<td>Biology</td>
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<td>Physical Science</td>
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<tr>
<td>Additional Biology or Physical Science</td>
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<tr>
<td>Humanities Distribution (202G/2020 foreign language course)</td>
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<tr>
<td>THEA 1013</td>
<td>Introduction to Theatre FF WE</td>
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<tr>
<td>Social/Behavioral Science</td>
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Discipline Core Requirements: 30 Credits

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<tr>
<td>THEA 1033</td>
<td>Acting I FF</td>
<td>3</td>
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<tr>
<td>THEA 1513</td>
<td>Stagecraft I</td>
<td>2</td>
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<tr>
<td>THEA 1514</td>
<td>Stagecraft I Lab</td>
<td>1</td>
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<tr>
<td>THEA 159R</td>
<td>Production Practicum for Stage and Screen I</td>
<td>1</td>
</tr>
<tr>
<td>THEA 1713</td>
<td>Script and Text Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2211</td>
<td>Theatre for Children and Youth</td>
<td>3</td>
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<tr>
<td>or THEA 2741</td>
<td>Scriptwriting for Stage</td>
<td></td>
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<tr>
<td>THEA 2513</td>
<td>Introduction to Design for Stage and Screen</td>
<td>3</td>
</tr>
<tr>
<td>THEA 2514</td>
<td>Introduction to Design for Stage and Screen Lab</td>
<td>1</td>
</tr>
<tr>
<td>THEA 3561</td>
<td>Stage Management I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3611</td>
<td>Directing Actors for Stage and Screen</td>
<td>3</td>
</tr>
<tr>
<td>THEA 3721</td>
<td>Theatre History and Literature I WE</td>
<td>3</td>
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<tr>
<td>THEA 3722</td>
<td>Theatre History and Literature II</td>
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<tr>
<td>THEA 4981</td>
<td>Portfolio</td>
<td>1</td>
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Courseslist A: 12

Complete 12 approved credits from the following courses. At least 9 of the 12 credits must be at the 3000 level or above. 12

**DIRECTING COURSES:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>THEA 3612</td>
<td>Directing Actors for the Stage (3)</td>
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</tr>
<tr>
<td>THEA 3614</td>
<td>Directing Actors for the Screen (3)</td>
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</table>

**PERFORMANCE COURSES:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>THEA 1113</td>
<td>Voice and Speech I (3)</td>
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<tr>
<td>THEA 184R</td>
<td>Singing Technique for Actors I-BA (1)</td>
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<tr>
<td>THEA 2033</td>
<td>Acting II (3)</td>
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</tr>
<tr>
<td>THEA 2127</td>
<td>Voiceover Acting (3)</td>
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<tr>
<td>THEA 2131</td>
<td>Movement for the Actor I (3)</td>
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<tr>
<td>THEA 2156</td>
<td>Group Voice for Theatre (2)</td>
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<tr>
<td>THEA 3033</td>
<td>Acting III (3)</td>
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<tr>
<td>THEA 3113</td>
<td>Acting for Film (3)</td>
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<tr>
<td>THEA 3116</td>
<td>Auditioning - BA (3)</td>
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<tr>
<td>THEA 3133</td>
<td>Stage Combat (3)</td>
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<tr>
<td>THEA 3151</td>
<td>Acting for Musical Theatre I (3)</td>
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<tr>
<td>THEA 3154</td>
<td>Dance for Musical Theatre I (3)</td>
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<tr>
<td>THEA 315R</td>
<td>Musical Theatre Practicum (2)</td>
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<tr>
<td>THEA 319R</td>
<td>Performance Practicum for Stage and Screen (1)</td>
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<tr>
<td>THEA 3725</td>
<td>Musical Theatre History (3)</td>
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</tbody>
</table>

**CAPSTONE COURSE:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>THEA 4993</td>
<td>Senior Project in Performance (3)</td>
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</table>

Courseslist B: 12

Complete 12 approved credits from the following courses. At least 9 of the 12 credits must be at the 3000 level or above. 12

**DESIGN COURSES:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART 1020</td>
<td>Basic Drawing for Non-Majors FF (3)</td>
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<tr>
<td>THEA 2541</td>
<td>Costume History G (3)</td>
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</tr>
<tr>
<td>THEA 3514</td>
<td>Period Styles for Theatre Design (3)</td>
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<tr>
<td>THEA 3521</td>
<td>Sound Design I (3)</td>
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<tr>
<td>THEA 4522</td>
<td>Sound Design II (undefined)</td>
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</tr>
<tr>
<td>THEA 3531</td>
<td>Lighting Design I (3)</td>
<td></td>
</tr>
<tr>
<td>THEA 3535</td>
<td>Lighting Design I Lab (1)</td>
<td></td>
</tr>
<tr>
<td>THEA 4537</td>
<td>Lighting Design II</td>
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</tr>
<tr>
<td>THEA 3541</td>
<td>Costume Design I (3)</td>
<td></td>
</tr>
<tr>
<td>THEA 3545</td>
<td>Costume Design I Lab (1)</td>
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<tr>
<td>THEA 4547</td>
<td>Costume Design II</td>
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<tr>
<td>THEA 3571</td>
<td>Scenic Design I (3)</td>
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<tr>
<td>THEA 3575</td>
<td>Scenic Design I Lab (1)</td>
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<tr>
<td>THEA 4577</td>
<td>Scenic Design II (undefined)</td>
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</table>

**TECHNICAL PRODUCTION COURSES:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>DGM 2130</td>
<td>Digital Audio Essentials (3)</td>
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<tr>
<td>THEA 1223</td>
<td>Makeup I (3)</td>
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</tr>
<tr>
<td>THEA 2203</td>
<td>Costume Construction I (3)</td>
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</table>
### Theatrical Arts for Stage and Screen

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>THEA 2204</td>
<td>Costume Construction I Lab</td>
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<tr>
<td>THEA 2531</td>
<td>Introduction to Lighting and Sound</td>
<td>(3)</td>
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<tr>
<td>THEA 2574</td>
<td>Drafting for Theatre Design</td>
<td>(3)</td>
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<tr>
<td>THEA 3223</td>
<td>Makeup II</td>
<td>(3)</td>
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<tr>
<td>THEA 3511</td>
<td>Stagecraft II</td>
<td>(3)</td>
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<tr>
<td>THEA 3542</td>
<td>Costume Construction II</td>
<td>(3)</td>
</tr>
<tr>
<td>THEA 3565</td>
<td>Technical Direction for the Stage</td>
<td>(3)</td>
</tr>
<tr>
<td>THEA 3573</td>
<td>Scenic Painting</td>
<td>(3)</td>
</tr>
<tr>
<td>THEA 454R</td>
<td>Special Topics in Costume Construction</td>
<td>(1-3)</td>
</tr>
<tr>
<td>THEA 4561</td>
<td>Stage Management II</td>
<td>(3)</td>
</tr>
</tbody>
</table>

### CAPSTONE COURSES:
- THEA 457R Practical Design (1-3)
- THEA 481R Theatre Internship (1)
- THEA 4995 Senior Project in Design (undefined)

**Course List C:**
12 Complete 12 approved credits from the following courses. At least 9 of the 12 credits must be at the 3000 level or above.

### EXPLORATORY COURSE:
- THEA 272R BA Seminar (1)

### DRAMATURGY COURSES:
- THEA 3711 Script and Text Analysis II (3)
- THEA 3731 Dramaturgy (3)
- THEA 374R New Script Workshop (3)
- THEA 474R New Play Practicum (1)

### FILM STUDIES COURSES:
- DGM 1520 Digital Cinema Production I (3)
- THEA 2311 Film History I FF (3)
- THEA 2312 Film History II (3)
- THEA 2742 Scriptwriting for the Screen WE (3)
- COMM 3110 Non Fiction Cinema History (3)
- DGM 302R Digital Cinema Production Lecture Series-CineSkype (1) (Maximum of 3 credits toward graduation)
- DGM 3570 Storytelling for Digital Media II WE (3)
- THEA 314G Global Cinema History GI (3)
- THEA 416R Special Topics in Film Studies (3)

### SCRIPTWRITING COURSES:
- THEA 2742 Scriptwriting for the Screen WE (3)
- THEA 3741 Script Writing II (3)
- THEA 374R New Script Workshop (3)
- THEA 4741 Scriptwriting III (3)
- THEA 474R New Play Practicum (1)
- THEA 475R Special Projects in Dramatic Writing (2-9)

### THEATRE ADMINISTRATION COURSES:
- ACC 3000 Financial Managerial and Cost Accounting Concepts (3)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>THEA 3625</td>
<td>Development and Fundraising for the Arts</td>
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<tr>
<td>THEA 4621</td>
<td>Theatre Administration I</td>
<td>(3)</td>
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<tr>
<td>THEA 4622</td>
<td>Theatre Administration II</td>
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</tbody>
</table>

### THEATRE FOR CHILDREN AND YOUTH COURSES:
- THEA 2100 Teaching Theatre For Children FF (3)
- THEA 222R Theatre for Young Audiences Tour (3)
- THEA 3211 Applied Theatre (3)
- THEA 3231 Creative Drama (3)
- THEA 3241 Storytelling (3)
- THEA 3251 Puppetry (3)

### CAPSTONE COURSES:
- THEA 490R Independent Study (1-3)
- THEA 4994 Senior Project in Theatre (3)

### Elective Requirements:
- 18 Credits
  - One Foreign Language (Foreign Language 202G/2020 course fulfills Humanities Distribution) 12
  - Any courses 1000 or higher 6

### Notes:
1. Requires additional pre-requisite courses not already included in the degree, but they could fill elective credits.

### Graduation Requirements:
1. Completion of a minimum of 120 semester credits, 40 of which must be upper division.
2. Overall grade point average of 2.5 (C+) or above.
3. Residency hours - minimum of 30 credit hours through course attendance at UVU, with at least 10 hours in the last 45 hours.
4. Successful completion of at least one Global/Intercultural course.

### Theatre Studies, B.A.

#### Careers
1. Literacy: Students will have a working knowledge of theatrical history, methods, and technologies that will assist them in understanding and creating plays and other theatrical events.
2. Artistry: Students will demonstrate creative and collaborate skills in their area(s) of focus.
3. Professionalism: Students will demonstrate entry level professional competency that can be applied to their field or further study.

#### Related Careers
- Art, Drama, and Music Teachers, Postsecondary
- Actors
- Producers and Directors
- Entertainers and Performers, Sports and Related Workers, All Other
Transportation Technologies

Transportation Technologies

The Transportation Technologies department is in the Scott M. Smith College of Engineering. To find the most up-to-date information, including Program Learning Outcomes for degree programs offered by the Transportation Technologies department, visit their website.

FACULTY

BEAN, Paul Associate Professor
BOHL, Dean Associate Professor
HASARA, Matthew Assistant Professor
JENNINGS, Trent Assistant Professor
LOW, Todd Professor
MOORE, Thomas Lecturer
ORR, Terrance Associate Professor
TAYLOR, Zachery Associate Professor
WALKER, Kent Associate Professor
WILSON, Don Associate Professor

Course Descriptions

Auto Mechanics.................................................................555
Collision Repair Technology.............................................603
Diesel Mechanics............................................................635
Automotive Power Sports..................................................821

Degrees & Programs

Automotive Power Sports, A.A.S.

Requirements

The AAS in Automotive Power Sports is designed to train technicians in the field of maintenance and repair of personal transportation craft and multi person transportation vehicles that are currently outside the realm of automotive. The degree includes: on road alternative vehicles (side by sides), personal watercraft, All Terrain Vehicle (ATV) and Utility Terrain Vehicle (UTV), snow machines, lawn and garden systems, and motorcycle technology. Graduates will gain an in-depth understanding of alternative transportation vehicles utilizing hands-on, performance based training.

A sales and service business skills course will also aid students to acclimate from school training to a live repair facility. Students will receive training in four-stroke and two-stroke engines, continuous variable transmissions (CVT), suspension and braking systems, composite repairs, and small engine electronic systems.

Total Program Credits: 63

General Education Requirements: 17 Credits

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<th>Course Title</th>
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<td>AUT 1260</td>
<td>Tech Math for Mechanics</td>
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<td>or MAT 1010</td>
<td>Intermediate Algebra (4)</td>
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<td>Complete one of the following:</td>
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<td>MKTG 220G</td>
<td>Written Business Communication GE (3)</td>
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<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC (3)</td>
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<tr>
<td>ENGH 1005</td>
<td>Literacies and Composition Across Contexts CC (5)</td>
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Any approved Behavioral Science, Social, or Political Science Distribution Course 3
Any approved Humanities, Fine Arts, or Foreign Language Distribution Course 3
Any approved Physical Education, Health, Safety, or Environment Course 2
Any approved Biology or Physical Science Distribution Course 3

Discipline Core Requirements: 46 Credits

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<td>Brake Systems</td>
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<td>AUT 111L</td>
<td>Brake Systems Lab</td>
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<td>AUT 1160</td>
<td>Automotive Electrical Systems</td>
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<td>AUT 116L</td>
<td>Automotive Electrical Systems Lab</td>
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<td>AUT 117L</td>
<td>Engine Electrical Systems Lab</td>
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<tr>
<td>AUT 1210</td>
<td>Suspension and Steering Systems</td>
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<td>CRT 2400</td>
<td>Plastic Paintless Dent Repair</td>
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<td>CRT 1230</td>
<td>Welding and Cutting</td>
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<td>PST 1120</td>
<td>Constant Velocity Transmissions and Drive Systems</td>
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<td>PST 1125</td>
<td>Constant Velocity Transmissions and Drive Systems Lab</td>
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<tr>
<td>PST 2110</td>
<td>Snowmobile Systems</td>
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<td>PST 2115</td>
<td>Snowmobile Systems Lab</td>
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<td>PST 2120</td>
<td>ATV and UTV Systems</td>
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<td>ATV and UTV Systems Lab</td>
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<td>PST 2130</td>
<td>Small Motorcycles and Scooters</td>
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<td>Small Motorcycles and Scooters Lab</td>
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<td>PST 2230</td>
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<td>PST 2235</td>
<td>Street and Sport Motorcycle Lab</td>
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<td>PST 2240</td>
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<td>PST 2245</td>
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<td>PST 2250</td>
<td>Personal Watercraft</td>
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<tr>
<td>AUT 285R</td>
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Notes:

1. Cooperative Education courses may be used in place of some of the laboratory or shop classes for completion of AAS requirements. Approval of the program coordinator must be secured before class enrollment.

Graduation Requirements:

Utah Valley University Course Catalog 2023-2024
Transportation Technologies

1. Completion of a minimum of 63 semester credits
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 20 credit hours through course attendance at UVU
4. Completion of GE and specified departmental requirements

**Automotive Power Sports, A.A.S. Careers**

1. Identify/diagnose/repair electrical and electronic systems.
2. Identify/diagnose/repair 2 and 4 stroke engine mechanical systems.
3. Identify/diagnose/repair nonstructural and structural components.
4. Identify/diagnose/repair clutching and drive train systems.
5. Identify/diagnose/repair cooling/heating systems.
6. Identify/diagnose/repair steering suspension and brake systems.
7. Identify/diagnose/repair varied fuel delivery systems.

**Related Careers**

• Motorboat Mechanics and Service Technicians
• Outdoor Power Equipment and Other Small Engine Mechanics

**Automotive Technology, A.A.S. Requirements**

Five options are available: a One-Year Certificate, a Two-Year Diploma, an Associate in applied Science Degree, an Associate in Science, and the Bachelor of Science in Technology Management degree.

**Total Program Credits: 64**

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>16 Credits</th>
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<tbody>
<tr>
<td>MKTG 220G Written Business Communication GI WE</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 1010 Introduction to Academic Writing CC (3)</td>
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</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (5)</td>
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</tr>
<tr>
<td>AUT 1260 Tech Math for Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>or MAT 1015 Intermediate Algebra with Integrated Review</td>
<td></td>
</tr>
<tr>
<td>Any approved Humanities, Fine Arts, or Foreign Language Distribution Course</td>
<td>3</td>
</tr>
<tr>
<td>Any approved Behavioral Science, Social, or Political Science Distribution Course</td>
<td>3</td>
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<tr>
<td>Any approved Biology or Physical Science Distribution Course</td>
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<tr>
<td>Any approved Physical Education, Health, Safety, or Environment Course</td>
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<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
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<tbody>
<tr>
<td>AUT 1110 Brake Systems</td>
<td>2</td>
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<tr>
<td>AUT 111L Brake Systems Lab</td>
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</tr>
<tr>
<td>AUT 1120 Manual Power Trains</td>
<td>2</td>
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<tr>
<td>AUT 112L Manual Power Trains Lab</td>
<td>1</td>
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<tr>
<td>AUT 1130 Engine Repair</td>
<td>2</td>
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<tr>
<td>AUT 113L Engine Repair Lab</td>
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<tr>
<td>AUT 1160 Automotive Electrical Systems</td>
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<td>AUT 116L Automotive Electrical Systems Lab</td>
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</table>

**Graduation Requirements:**

1. Completion of a minimum of 64 semester credits
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 20 credit hours through course attendance at UVU
4. Completion of GE and specified departmental requirements

**Automotive Technology, A.A.S. Careers**

1. Students will be able to demonstrate and discuss what effect wide band O2 sensors have on vehicle emissions and drivability, and how PCM input and output is interpreted.
**Automotive Technology, A.S.**

**Requirements**

Five options are available: a One-Year Certificate, a Two-Year Diploma, an Associate in applied Science Degree, an Associate in Science, and the Bachelor of Science in Technology Management degree.

**Total Program Credits: 60**

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<td>or ENGH 1005 Literacies and Composition Across Context CC (5)</td>
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<td>ENGL 2010 Intermediate Academic Writing CC</td>
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<td>MAT 1030 Quantitative Reasoning QL (3)</td>
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<td>MAT 1035 Quantitative Reasoning with Integrated Algebra QL (6)</td>
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<td>STAT 1040 Introduction to Statistics QL (3)</td>
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<td>STAT 1045 Introduction to Statistics with Algebra QL (5)</td>
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<td>MATH 1050 College Algebra QL (4)</td>
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<tr>
<td>MATH 1055 College Algebra with Preliminaries QL (5)</td>
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<td>MATH 1090 College Algebra for Business QL (3)</td>
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<td>POLS 1000 American Heritage SS (3)</td>
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<tr>
<td>HIST 2700 US History to 1877 AS (3)</td>
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<tr>
<td>and HIST 2710 US History since 1877 AS (3)</td>
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<tr>
<td>HIST 1700 American Civilization AS (3)</td>
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<tr>
<td>HIST 1740 US Economic History AS (3)</td>
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<tr>
<td>POLS 1100 American National Government AS (3)</td>
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<td>Complete the following:</td>
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<td>PHIL 2050 Ethics and Values IH</td>
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<tr>
<td>HLTH 1100 Personal Health and Wellness TE</td>
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<tr>
<td>or EXSC 1097 Fitness for Life TE (2)</td>
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<td>Physical Science</td>
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<td>Additional Biology or Physical Science</td>
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<td>Humanities</td>
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<td>Fine Arts</td>
<td>3</td>
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<tr>
<td>Social/Behavioral Science</td>
<td>3</td>
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<tr>
<td>Discipline Core Requirements:</td>
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<td>Choose from AUT or related 1000 level or higher courses</td>
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<tr>
<td>Elective Requirements:</td>
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**Graduation Requirements:**

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require higher GPA.)
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

**Related Careers**

- Electrical and Electronics Installers and Repairers, Transportation Equipment
- Electronic Equipment Installers and Repairers, Motor Vehicles
- Automotive Service Technicians and Mechanics

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**Collision Repair Technology, A.A.S.**

**Requirements**

Collision Repair Technology is a two year AAS Degree program that provides students with the ability to learn industries best practices in Surface Preparation, Nonstructural Repair, Welding, Refinishing, Color Matching, Detailing, Blending, Structural Damage Analysis, Repair and Replacement, Advanced Vehicle Systems diagnostics and repair and Plastic/Composite Repair. Students will graduate with industry certifications, such as I-Car, ASE, Mitchells, Audatex, CCC One, and Chief Training. These skills will prepare graduates for an exciting career in a field that is continually advancing in technology. There is an abundance of growth and personal development possible in this field. The program is certified by the National Automotive Teacher Education Foundation (NATEF) and uses Inter-Industry Conference on Auto Collision Repair (I-CAR) curriculum. Students will receive the latest repair technique training and have the ability to gain I-CAR certifications. Jobs are waiting for you to complete your training!

**Total Program Credits: 64**

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th>16 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 220G Written Business Communication GI WE</td>
<td>3</td>
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<tr>
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<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
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</tr>
<tr>
<td>AUT 1260 Tech Math for Mechanics (3)</td>
<td>3</td>
</tr>
<tr>
<td>or MAT 1010 Intermediate Algebra (4)</td>
<td></td>
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<tr>
<td>or MATH 1050 College Algebra QL (4)</td>
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<tr>
<td>or Any higher MAT or MATH course.</td>
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<tr>
<td>Any approved Humanities, Fine Arts, or Foreign Language Distribution Course</td>
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<tr>
<td>Any approved Behavioral Science, Social, or Political Science Distribution Course</td>
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<td>Any approved Biology or Physical Science Distribution Course</td>
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<tr>
<td>Any approved Physical Education, Health, Safety or Environment Course</td>
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</tbody>
</table>

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**Related Careers**

- Electrical and Electronics Installers and Repairers, Transportation Equipment
- Electronic Equipment Installers and Repairers, Motor Vehicles
- Automotive Service Technicians and Mechanics
### Transportation Technologies

**Discipline Core Requirements:**
- **48 Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AUT 1160</td>
<td>Automotive Electrical Systems</td>
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<td>AUT 116L</td>
<td>Automotive Electrical Systems Lab</td>
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<tr>
<td>AUT 2240</td>
<td>Heating Ventilation Air Conditioning and Refrigeration Theory Modified Course</td>
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<tr>
<td>AUT 224L</td>
<td>Automotive HVAC Lab</td>
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<tr>
<td>CRT 1110</td>
<td>Surface Preparation</td>
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<tr>
<td>CRT 111L</td>
<td>Surface Preparation Lab</td>
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<tr>
<td>CRT 1120</td>
<td>Nonstructural Repair</td>
<td>2</td>
</tr>
<tr>
<td>CRT 112L</td>
<td>Nonstructural Repair Lab</td>
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</tr>
<tr>
<td>CRT 1130</td>
<td>Overall Refinishing and Problem Solving</td>
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<td>CRT 113L</td>
<td>Overall Refinishing and Problem Solving Lab</td>
<td>1</td>
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<tr>
<td>CRT 1140</td>
<td>Panel Replacement and Adjustment</td>
<td>2</td>
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<td>Panel Replacement and Adjustment Lab</td>
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<tr>
<td>CRT 1210</td>
<td>Blending Tinting and Detailing</td>
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<td>CRT 121L</td>
<td>Blending Tinting and Detailing Lab</td>
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<tr>
<td>CRT 1230</td>
<td>Welding and Cutting</td>
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<td>CRT 123L</td>
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<td>or CRT 281R</td>
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<td>or CRT 285R</td>
<td>Cooperative Correlated Class - Internship (1) ¹</td>
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<tr>
<td>or CRT 299R</td>
<td>Skills USA (1) (optional)</td>
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<td>CRT 2310</td>
<td>Collision Damage Reporting</td>
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<td>CRT 231L</td>
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<td>CRT 2320</td>
<td>Structural Damage Analysis</td>
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<td>Structural Damage Analysis Lab</td>
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<td>CRT 2330</td>
<td>Structural Repair</td>
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<td>CRT 233L</td>
<td>Structural Repair Lab</td>
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<td>CRT 2340</td>
<td>Full and Partial Panel Replacement</td>
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<td>CRT 234L</td>
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<td>CRT 2400</td>
<td>Plastic Paintless Dent Repair</td>
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<td>Plastic PaintLess Dent Repair Lab</td>
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<td>CRT 2440</td>
<td>Mechanical Advanced Vehicle Systems</td>
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<td>CRT 244L</td>
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<td>CRT 2450</td>
<td>Bags Brakes Steering</td>
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<td>CRT 245L</td>
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<td>Detailing and Custom Painting</td>
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<tr>
<td>CRT 263L</td>
<td>Detailing and Custom Painting</td>
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</table>

**Notes:**
1. Cooperative Education courses may be used in place of some of the laboratory or shop classes for completion of AAS requirements. Approval of the program coordinator must be secured before class enrollment.

### Diesel Mechanics Technology, A.A.S.

**Requirements**
- One-Year Certificate, a Diploma, the Associate in Applied Science Degree, and the Bachelor of Science in Technology Management Degree.

**Total Program Credits: 63**

#### General Education Requirements:
- **10 Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MKTG 220G</td>
<td>Written Business Communication GI WE</td>
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</table>

Choose one of the following:
- **3 Credits**
  - **AUT 1260** Tech Math for Mechanics (3)
  - **or** **MAT 1000** Integrated Beginning and Intermediate Algebra (5)
  - **or** Any higher MAT or MATH course

- Any approved Behavioral Science, Social, or Political Science Distribution Course: **3 Credits**
- Any approved Physical Education, Health, Safety or Environment Course: **1 Credit**

#### Discipline Core Requirements:
- **53 Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>DMT 1005</td>
<td>Basic Shop and Safety Skills</td>
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<td>DMT 1110</td>
<td>Diesel Engine Overhaul</td>
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<tr>
<td>DMT 111L</td>
<td>Diesel Engine Overhaul Lab</td>
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<tr>
<td>DMT 1120</td>
<td>Diesel Engine Operation Tune Up</td>
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<td>DMT 112L</td>
<td>Diesel Engine Operation Tune Up Lab</td>
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<td>DMT 1510</td>
<td>Electrical Systems I</td>
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<td>DMT 151L</td>
<td>Electrical Systems I Lab</td>
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<td>DMT 1520</td>
<td>Electrical Systems II</td>
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<td>DMT 152L</td>
<td>Electrical Systems II Lab</td>
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<td>Heating Ventilation Air Conditioning and Refrigeration Theory</td>
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<td>DMT 223L</td>
<td>Heating Ventilation Air Conditioning and Refrigeration Lab</td>
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<td>DMT 2310</td>
<td>Fluid Power I Theory</td>
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<td>DMT 231L</td>
<td>Fluid Power I Lab</td>
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<td>DMT 2320</td>
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<td>DMT 2410</td>
<td>Chassis Theory</td>
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<td>DMT 241L</td>
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<td>Power Train Theory</td>
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<td>DMT 242L</td>
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<td>DMT 2530</td>
<td>Electronic Engine Management</td>
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<td>DMT 253L</td>
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### Graduation Requirements:
- **1. Completion of a minimum of 63 semester credits.**
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

Diesel Mechanics Technology, A.A.S.

**Careers**

1. Identify, diagnose, and repair electrical and electronic computer systems.
2. Identify, diagnose, and repair diesel engine mechanical systems.
3. Identify, diagnose, and repair drivetrain & chassis systems.
4. Identify, diagnose, and repair steering suspension & brake systems.
5. Identify, diagnose, and repair heating and cooling systems.
6. Identify, diagnose, and repair hydraulic/hydrostatic systems.
7. Identify, diagnose, and repair fuel delivery systems.
8. Display industry based communication skills.

**Related Careers**

- Bus and Truck Mechanics and Diesel Engine Specialists

Automotive Technology, Certificate of Completion

**Requirements**

Five options are available: a One-Year Certificate, a Two-Year Diploma, an Associate in applied Science Degree, an Associate in Science, and the Bachelor of Science in Technology Management degree.

**Total Program Credits: 31**

<table>
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<th>Discipline Core Requirements:</th>
<th>31 Credits</th>
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<tbody>
<tr>
<td>AUT 1110 Brake Systems</td>
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<td>AUT 112L Manual Power Trains Lab</td>
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<tr>
<td>AUT 1130 Engine Repair</td>
<td>2</td>
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<tr>
<td>AUT 113L Engine Repair Lab</td>
<td>1</td>
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<tr>
<td>AUT 1160 Automotive Electrical Systems</td>
<td>2</td>
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<td>AUT 1170 Engine Electrical Systems</td>
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<td>1</td>
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<tr>
<td>AUT 1210 Suspension and Steering Systems</td>
<td>2</td>
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<tr>
<td>AUT 121L Suspension and Steering Systems Lab</td>
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</tr>
<tr>
<td>AUT 1220 Automatic Powertrain Systems</td>
<td>2</td>
</tr>
<tr>
<td>AUT 122L Automatic Transmissions and Transaxles Lab</td>
<td>1</td>
</tr>
<tr>
<td>AUT 1230 Engine Performance</td>
<td>2</td>
</tr>
<tr>
<td>AUT 1260 Tech Math for Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 220G Written Business Communication GI WE</td>
<td>3</td>
</tr>
</tbody>
</table>

Any approved Behavioral Science, Social, or Political Science Distribution course 2

**Graduation Requirements:**

1. Completion of a minimum of 31 semester credits

Automotive Technology, Certificate of Completion

**Careers**

1. Diagnose and repair charging and electronic systems.
2. Diagnose and repair braking systems.
3. Diagnose, repair, and identify drivetrain components.
4. Diagnose and repair steering and suspension components.
5. Diagnose and repair HVAC systems.
6. Diagnose and repair engine mechanical systems.
7. Diagnose and repair fuel and ignition systems.
8. Retrieve, diagnose, and flash computer systems.

**Related Careers**

- Electrical and Electronics Installers and Repairers, Transportation Equipment
- Electronic Equipment Installers and Repairers, Motor Vehicles
- Automotive Service Technicians and Mechanics

Collision Repair Technology, Certificate of Completion

**Requirements**

One-Year Certificate, a Diploma, the Associate in Applied Science Degree, and the Bachelor of Science in Technology Management Degree. See graduation requirements in the catalog for more information.

**Total Program Credits: 32**

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>32 Credits</th>
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</thead>
<tbody>
<tr>
<td>AUT 1260 Tech Math for Mechanics (3)</td>
<td>3</td>
</tr>
<tr>
<td>or MAT 1010 Intermediate Algebra (4)</td>
<td>4</td>
</tr>
<tr>
<td>or MAT 1050 College Algebra QL (4)</td>
<td>4</td>
</tr>
<tr>
<td>or Any higher MAT or MATH course</td>
<td></td>
</tr>
<tr>
<td>MKTG 220G Written Business Communication GI WE</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 1010 Introduction to Academic Writing CC (3)</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts CC (3)</td>
<td>3</td>
</tr>
<tr>
<td>Any approved Behavioral Science, Social, or Political Science Distribution Course</td>
<td>2</td>
</tr>
<tr>
<td>AUT 1160 Automotive Electrical Systems</td>
<td>2</td>
</tr>
<tr>
<td>AUT 116L Automotive Electrical Systems Lab</td>
<td>1</td>
</tr>
<tr>
<td>AUT 2240 Heating Ventilation Air Conditioning and Refrigeration Theory</td>
<td>2</td>
</tr>
<tr>
<td>AUT 224L Automotive HVAC Lab</td>
<td>1</td>
</tr>
<tr>
<td>CRT 1110 Surface Preparation</td>
<td>2</td>
</tr>
<tr>
<td>CRT 111L Surface Preparation Lab</td>
<td>1</td>
</tr>
<tr>
<td>CRT 1120 Nonstructural Repair</td>
<td>2</td>
</tr>
<tr>
<td>CRT 112L Nonstructural Repair Lab</td>
<td>1</td>
</tr>
<tr>
<td>CRT 1230 Welding and Cutting</td>
<td>2</td>
</tr>
</tbody>
</table>

Utah Valley University

Course Catalog 2023-2024
Transportation Technologies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRT 123L</td>
<td>Welding and Cutting Lab</td>
<td>1</td>
</tr>
<tr>
<td>CRT 1140</td>
<td>Panel Replacement and Adjustment</td>
<td>2</td>
</tr>
<tr>
<td>CRT 114L</td>
<td>Panel Replacement and Adjustment Lab</td>
<td>1</td>
</tr>
<tr>
<td>CRT 1130</td>
<td>Overall Refinishing and Problem</td>
<td>2</td>
</tr>
<tr>
<td>CRT 113L</td>
<td>Overall Refinishing and Problem</td>
<td>1</td>
</tr>
<tr>
<td>CRT 1210</td>
<td>Blending Tinting and Detailing</td>
<td>2</td>
</tr>
<tr>
<td>CRT 121L</td>
<td>Blending Tinting and Detailing Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

Graduation Requirements:
1. Completion of a minimum of 32 semester credits
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 10 credit hours through course attendance at UVU

Note: Cooperative Education courses may be used in place of some of the laboratory or shop classes for completion of diploma requirements.

Collision Repair Technology, Certificate of Completion

Careers
1. Identify, diagnose, and repair electrical systems.
2. Identify, diagnose, and repair nonstructural and structural damage.
3. Identify, diagnose, and repair paint refinishing defects/damage.
4. Identify, diagnose, and repair HVAC system damage.
5. Identify, diagnose, and repair drivetrain damage.
6. Identify, diagnose, and repair safety and restraint systems.
7. Develop and display industry communication skills.

Related Careers
- Insurance Appraisers, Auto Damage
- Automotive Body and Related Repairers
- Automotive Glass Installers and Repairers
- Painters, Transportation Equipment

Diesel Mechanics Technology, Certificate of Completion

Requirements
One-Year Certificate, a Diploma, the Associate in Applied Science Degree, and the Bachelor of Science in Technology Management Degree.

Total Program Credits: 32

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>32 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMT 1110 Diesel Engine Overhaul</td>
<td>4</td>
</tr>
<tr>
<td>DMT 111L Diesel Engine Overhaul Lab</td>
<td>2</td>
</tr>
<tr>
<td>DMT 1120 Diesel Engine Operation Tune Up</td>
<td>4</td>
</tr>
<tr>
<td>DMT 112L Diesel Engine Operation Tune Up Lab</td>
<td>2</td>
</tr>
<tr>
<td>DMT 2410 Chassis Theory</td>
<td>4</td>
</tr>
<tr>
<td>DMT 241L Chassis Lab</td>
<td>2</td>
</tr>
<tr>
<td>DMT 2420 Power Train Theory</td>
<td>4</td>
</tr>
<tr>
<td>DMT 242L Power Train Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

MKTG 220G Written Business Communication 3

Complete one of the following:

- AUT 1260 Tech Math for Mechanics (3) 3
- MAT 1015 Intermediate Algebra with Integrated Review (5) 5
- Any higher MAT or MATH course 2
- Any approved Behavioral Science, Social, or Political Science Distribution Course 2

Graduation Requirements:
1. Completion of a minimum of 32 credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Residency hours -- minimum of 10 credit hours through course attendance at UVU.

Diesel Mechanics Technology, Certificate of Completion

Careers
1. Identify, diagnose, and repair electrical and electronic computer systems.
2. Identify, diagnose, and repair diesel engine mechanical systems.
3. Identify, diagnose, and repair drivetrain and chassis systems.
4. Identify, diagnose, and repair steering suspension & brake systems.
5. Identify, diagnose, and repair heating and cooling systems.
6. Identify, diagnose, and repair hydraulic/hydrostatic systems.
7. Identify, diagnose, and repair fuel delivery systems.
8. Display industry based communication skills.

Related Careers
- Bus and Truck Mechanics and Diesel Engine Specialists

Automotive Technology, Diploma

Requirements
Five options are available: a One-Year Certificate, a Two-Year Diploma, an Associated in applied Science Degree, an Associate in Science, and the Bachelor of Science in Technology Management degree.

Total Program Credits: 56

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>56 Credits</th>
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</thead>
<tbody>
<tr>
<td>AUT 1110 Brake Systems</td>
<td>2</td>
</tr>
<tr>
<td>AUT 111L Brake Systems Lab</td>
<td>1</td>
</tr>
<tr>
<td>AUT 1120 Manual Power Trains</td>
<td>2</td>
</tr>
<tr>
<td>AUT 112L Manual Power Trains Lab</td>
<td>1</td>
</tr>
<tr>
<td>AUT 1130 Engine Repair</td>
<td>2</td>
</tr>
<tr>
<td>AUT 113L Engine Repair Lab</td>
<td>1</td>
</tr>
<tr>
<td>AUT 1160 Automotive Electrical Systems</td>
<td>2</td>
</tr>
<tr>
<td>AUT 116L Automotive Electrical Systems Lab</td>
<td>1</td>
</tr>
<tr>
<td>AUT 1170 Engine Electrical Systems</td>
<td>2</td>
</tr>
<tr>
<td>AUT 117L Engine Electrical Systems Lab</td>
<td>1</td>
</tr>
<tr>
<td>AUT 1210 Suspension and Steering Systems</td>
<td>2</td>
</tr>
<tr>
<td>AUT 121L Suspension and Steering Systems Lab</td>
<td>2</td>
</tr>
<tr>
<td>AUT 1220 Automatic Powertrain Systems</td>
<td>2</td>
</tr>
</tbody>
</table>
TRANSPORTATION TECHNOLOGIES

AUT 122L Automatic Transmissions and Transaxles Lab 1
AUT 1230 Engine Performance 2
AUT 123L Engine Performance Lab 1
AUT 2110 Advanced Steering Suspension and Alignment 2
AUT 211L Automotive Service Practicum Steering/Suspension/Alignment Lab 1
AUT 2120 Advanced Engine Performance 2
AUT 2130 Advanced Emission Control Systems 2
AUT 213L Automotive Service Practicum Emission Controls Lab 1
AUT 2140 Chassis Electrical and Electronics Systems 2
AUT 214L Automotive Service Practicum Chassis Electrical and Electronics Lab 1
AUT 2210 Advanced Braking and Control Systems 2
AUT 221L Automotive Service Practicum Brake Systems Lab 1
AUT 2220 Automatic Transmissions and Electronic Controls 2
AUT 222L Automotive Service Practicum Transmission Controls Lab 1
AUT 2240 Heating Ventilation Air Conditioning and Refrigeration Theory 2
AUT 224L Automotive HVAC Lab 1
AUT 2250 Electronic Fuel Management Systems 2
or AUT 2350 Electronic Diesel Fuel Management Systems (2) 2
AUT 225L Automotive Service Practicum Fuel Management Systems Lab 1
MKTG 220G Written Business Communication GI WE 3
Any approved Behavioral Science, Social, or Political Science Distribution Course 2
AUT 1260 Tech Math for Mechanics 3

Discipline Core Requirements: 61 Credits

DMT 1005 Basic Shop and Safety Skill 2
DMT 1110 Diesel Engine Overhaul 4
DMT 111L Diesel Engine Overhaul Lab 2
DMT 1120 Diesel Engine Operation Tune Up 4
DMT 112L Diesel Engine Operation Tune Up Lab 2
DMT 1510 Electrical Systems I 4
DMT 151L Electrical Systems I Lab 2
DMT 1520 Electrical Systems II 2
DMT 152L Electrical Systems II Lab 1
DMT 2230 Heating Ventilation Air Conditioning and Refrigeration Theory 2
DMT 223L Heating Ventilation Air Conditioning and Refrigeration Lab 1
DMT 2310 Fluid Power I Theory 4
DMT 231L Fluid Power I Lab 2
DMT 2320 Fluid Power II Theory 4
DMT 232L Fluid Power II Lab 2
DMT 2410 Chassis Theory 4
DMT 241L Chassis Lab 2
DMT 2420 Power Train Theory 4
DMT 242L Power Train Lab 2
DMT 2530 Electronic Engine Management 2
DMT 253L Electronic Engine Management Lab 1
MKTG 220G Written Business Communication GI WE 3
AUT 1260 Tech Math for Mechanics 3

Graduation Requirements:
1. Completion of a minimum of 61 semester credits.
2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)
3. Completion of specified departmental requirements.
4. Residency hours—minimum of 20 credit hours through course attendance at UVU.

Transportation Technologies, B.A.S.

Requirements
The Bachelor of Applied Science in Transportation Technologies offers career and technical training in advanced vehicle technologies. Courses offered are in the areas of energy storage, electric drivesystems, failure analysis, fleet operations management, diesel performance, vehicle design, composites, and other advanced vehicle design technologies. Students who complete this program can expect to be high potential earners, with the ability to move throughout the technician or management arena.

Total Program Credits: 122

Matriculation Requirements:
1. Students must complete 45 credits from a transportation-related Associate of Applied Science Degree, such as UVU's...
## General Education Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 1010</td>
<td>Introduction to Academic Writing CC</td>
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<tr>
<td>ENGL 2010</td>
<td>Intermediate Academic Writing CC</td>
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<tr>
<td>MAT 1030</td>
<td>Quantitative Reasoning QL (3)</td>
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<td>or</td>
<td>MAT 1035  Quantitative Reasoning with Integrated Algebra QL (6)</td>
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## American Heritage Distribution:

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<tr>
<td>PHIL 2050</td>
<td>Ethics and Values IH</td>
<td>3</td>
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<tr>
<td>HLTH 1100</td>
<td>Personal Health and Wellness TE</td>
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<tr>
<td>or</td>
<td>EXSC 1097  Fitness for Life TE (2)</td>
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## Biology Distributions

<table>
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## Physical Science Distribution

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## Humanities Distribution

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## Fine Arts Distribution

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</table>

## Additional Biology or Physical Science

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<tbody>
<tr>
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</table>

## TEAC 200G  Technology and Human Life SS GI

<table>
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<th>Course Title</th>
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<tbody>
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## Discipline Core Requirements:

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>TT 3250</td>
<td>Energy Storage and Advanced Electrical</td>
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</tr>
<tr>
<td>TT 3450</td>
<td>Failure Analysis Materials Science and Treatments</td>
<td>3</td>
</tr>
<tr>
<td>TT 3460</td>
<td>Can Bus Ladder Logic and PLC Systems</td>
<td>3</td>
</tr>
<tr>
<td>TT 4000</td>
<td>Capstone</td>
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<tr>
<td>TT 4260</td>
<td>Electric Drive Systems</td>
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<tr>
<td>TT 4270</td>
<td>Compliance EPA OSHA Others WE</td>
<td>3</td>
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<tr>
<td>TT 4510</td>
<td>Operations Management Fleet and Personnel WE</td>
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## Elective Requirements:

21 Credits

Choose seven courses from the following electives:

<table>
<thead>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TT 3126</td>
<td>Advanced Hydraulics</td>
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<tr>
<td>TT 3140</td>
<td>Vehicle Safety and Emissions</td>
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</tr>
<tr>
<td>TT 3230</td>
<td>High Performance Engines</td>
<td></td>
</tr>
<tr>
<td>TT 3320</td>
<td>Design and Construction</td>
<td></td>
</tr>
<tr>
<td>TT 3350</td>
<td>Alternative Fuel Systems</td>
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<tr>
<td>TT 3406</td>
<td>High Performance Diesel Engines</td>
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<tr>
<td>TT 3500</td>
<td>Fabrication and Automotive Interior Design</td>
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<tr>
<td>TT 3840</td>
<td>Dynamometer/Data Acquisition</td>
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<tr>
<td>TT 4230</td>
<td>Advanced Welding Technologies and Attachment Methods</td>
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<tr>
<td>TT 4320</td>
<td>Noise Vibration and Harshness</td>
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<tr>
<td>TT 4400</td>
<td>Advanced Composites</td>
<td></td>
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<tr>
<td>TT 4840</td>
<td>Performance Tuning</td>
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<tr>
<td>ACC 3000</td>
<td>Financial Managerial and Cost Accounting Concepts</td>
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</tr>
<tr>
<td>LEGL 3000</td>
<td>Business Law</td>
<td></td>
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</tbody>
</table>

## Graduation Requirements:

1. Completion of a minimum of 122 semester credits.
2. Overall grade point average of 2.0 (C) or above.
3. No grade lower than a ‘C-’ in any TT course.
4. Residency hours--minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
5. Completion of GE and specified departmental requirements.
6. Successful completion of at least one Global/Intercultural course.

## Transportation Technologies, B.A.S. Careers

1. Diagnose / Repair / Subsume/ Electrical & Electronic Systems
2. Diagnose / Repair / Subsume/ Transportation computer systems
3. Diagnose / Repair / Subsume/ Industry based communications systems
4. Diagnose / Repair / Subsume/ Advance vehicle systems

## Related Careers

- Electrical and Electronics Installers and Repairers, Transportation Equipment
- Electronic Equipment Installers and Repairers, Motor Vehicles
- Automotive Service Technicians and Mechanics
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3
* Prerequisite(s): MAT 0950 or equivalent

Designed for the business student as a review of mathematical principles, techniques, computations, and their applications to business problems. Topics include: checking accounts and bank reconciliations, percents, solving for the "unknown," discounts, markups and markdowns, payroll, simple interest, discounting notes, present and future value, depreciation, inventory, taxes, insurance, stocks and bonds, annuities, sinking funds, and calculator procedures. Lab access fee of $25 applies. Canvas Course Mats $85/McGraw applies.

ACC 1750
Applied Accounting
4
* Prerequisite(s): Appropriate placement scores or (ENGL 1005 or ENGL 1010 with a grade of C- or higher)

Designed for non-accounting majors in Executive Assistant and Paralegal. Provides comprehensive coverage of the accounting cycle for services and merchandising organizations. Topics include: Journalizing, posting, financial statements, closing, accounting systems, internal control, accounts receivable, accounts payable, inventory control, and payroll. Taught in a computer environment. Lab access fee of $25 for computers applies.

ACC 2010
Financial Accounting
3
* Prerequisite(s): ENGL 1010 or ENGL 1005 or higher with a minimum grade of C-, MAT 1010 or higher with a minimum grade of C-, or appropriate test scores.
* Corequisite(s): ACC 1150 recommended if required for your degree

Teaches concepts and methods underlying preparation of financial statements utilizing generally accepted accounting principles (GAAP). Includes the accounting cycle; income determination for service and merchandising operations; and the reporting of assets, liabilities, and owner's equity for sole proprietorships and corporations. Lab access fee of $25 for computers applies. Canvas Course Mats $85/McGraw applies.

ACC 2100
Managerial Accounting
3
* Prerequisite(s): ACC 2010

Focuses on the methods and tools used to generate information for decision making by managers within an organization and integrates decision-making throughout the course. Addresses five primary topics: determining the cost of products, services, and segments of the organization; short-term/long-term role of planning in management; the control function of management. May be delivered hybrid and/or online. Lab access fee of $25 for computers applies. Canvas Course Mats $78/McGraw applies.

ACC 2110
Principles of Accounting I
3
* Prerequisite(s): ENGL 1010 or ENGL 1005 or higher with a minimum grade of C-, MAT 1010 or higher with a minimum grade of C-, or appropriate test scores.

Teaches basic accounting methods and tools for business decision making. Incorporates financial and managerial accounting to provide basic understanding of generally accepted accounting principles (GAAP). Applies analytical tools to assess profitability, relevant costs, and investment decisions. Canvas Course Mats of $111/McGraw applies.

ACC 2120
Principles of Accounting II
3
* Prerequisite(s): ACC 2110 with a B- or higher

Teaches technical accounting concepts from both financial and managerial accounting. Includes generally accepted accounting principles (GAAP) to support understanding of the accounting cycle and financial statements. Includes managerial accounting topics such as costing methods, budget preparation, and performance evaluation tools. Canvas Course Mats of $111/McGraw applies.

ACC 2125
Introduction to the Accounting Profession
1

Teaches topics related to the accounting profession, including career options in accounting, certifications in accounting (CPA, CMA, CIA, CFE, etc.), ethics in the profession, current issues in accounting, professional standards, and professionalism skills. Discusses the educational requirements for the accounting undergraduate and graduate degrees.

ACC 2200
Accounting for Entrepreneurs
3

Addresses accounting issues from the perspective of an entrepreneur or small business owner. Includes choice of business entity, payroll preparation, internal control systems, and the basic application of applicable income and sales taxes. Teaches accounting software to classify, record, summarize, and report transactions and to generate financial statements.

ACC 2500
Data Analytics in Accounting
3
* Prerequisite(s): ACC 2110 with a B- or higher or ACC 2010 with a B- or higher
* Prerequisite(s) or Corequisite(s): ACC 2120 or ACC 2020

Introduces data analytics and data visualization tools and techniques in accounting. Provides hands-on experience in analyzing accounting data, creating visuals, and interpreting results using various data analytics and visualization software. Canvas Course Mats of $78/McGraw applies.

ACC 2600
Business Law and Ethics
3
* Prerequisite(s): ENGL 1010
* Prerequisite(s) or Corequisite(s): ACC 2110 or ACC 2010

Examines legal and ethical issues needed to make sound business decisions. Provides an overview of the legal system, constitutional law, ethical decision-making frameworks, business entities, contract law, business crimes and torts, compliance and regulatory issues, agency law, and bankruptcy law.

ACC 281R
Cooperative Work Experience
2 to 8
* Prerequisite(s): Approval of School of Business Career and Corporate Manager

Designed for accounting majors to provide on-the-job work experience that will utilize the student's skills and abilities in the field of accounting. Requires a portfolio of acquired work experience and enhanced skills. Includes student, employer, and coordinator evaluations; on-site coordinator visits; written assignments; and oral presentations. Provides experience in formulating and completing individualized work experience objectives. A maximum of 3 credits may apply toward graduation. May be graded credit/no credit.
Course Descriptions

ACC 3000
Financial Managerial and Cost Accounting Concepts
3
* Prerequisite(s): ENGL 2010, MAT 1010 or higher, and University Advanced Standing

Provide students in computer science and the technologies with knowledge of financial, managerial, and cost accounting concepts and applications. Prepares students to utilize accounting information in making business decisions. May be delivered online. Lab access fee of $25 for computers applies.

ACC 3010
Intermediate Accounting I
3
* Prerequisite(s): (ACC 2110 and ACC 2120) or (ACC 2110 and ACC 2120) each with a B- or higher, (MATH 1050, MATH 1055, or MATH 1090) with a C- or higher, and University Advanced Standing

* Prerequisite(s) or Corequisite(s): (MGMT 2240 or MATH 1100), ACC 2125, and (ACC 2500 or IM 2600)

Reviews and expands on fundamental accounting material learned in beginning classes. Covers an overview of the primary financial statements, revenue recognition, and the accounts on the asset portion of the balance sheet. Introduces the Conceptual Framework and current accounting standards to provide a theoretical foundation upon which practical applications are based. Lab access fee of $25 applies. Canvas Course Mats $85/McGraw applies.

ACC 3020
Intermediate Accounting II
3
* Prerequisite(s): ACC 3010, MKTG 220G, and University Advanced Standing

* Prerequisite(s) or Corequisite(s): ACC 3300

Addresses debt and equity financing, investments in debt and equity securities, leases, deferred income taxes, employee compensation (payroll and pensions), earnings per share, accounting changes, and error corrections. Lab access fee of $25 for computers applies. Canvas Course Mats $85/McGraw applies.

ACC 3030
Intermediate Accounting for Non-Accounting Majors
3
* Prerequisite(s): (ACC 2110 AND ACC 2120) or (ACC 2010 AND ACC 2020) and University Advanced Standing

An intermediate accounting course for non-accounting majors with emphasis on interpretation and use of general-purpose financial statements and the related disclosure notes. Addresses understanding interrelationships among the various financial statements and analyzing the effects of transactions on the financial statements. Analyzes common and significant accounts/transactions, especially those relating to the liability and equity sections of the financial statements. Canvas Course Mats $76/Wiley applies.

ACC 3120
Internal Auditing
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005), (MATH 1050 or MATH 1055 or MATH 1090 or higher), junior standing, minimum cumulative GPA of 3.0, and University Advanced Standing

Introduces students to the theories of governance, risk, and control concepts; internal auditing standards; audit techniques; and reporting practices. Applicable across disciplines.

ACC 312G
International Internal Auditing
3
* Prerequisite(s): (ACC 2110 and ACC 2120) or (ACC 2010 and ACC 2020), University Advanced Standing

Introduces students to the international internal auditing standards; global auditing case studies; theories of governance, risk, and control concepts; audit techniques; and reporting practices. Applicable across disciplines.

ACC 3300
Cost Management
3
* Prerequisite(s): (ACC 2110 AND ACC 2120) OR (ACC 2010 AND ACC 2120) each with a B- or higher and University Advanced Standing

Provides a strategic approach to cost management and the development and use of relevant information for management decision making. Builds a foundation by discussing the various concepts of cost, cost behavior, and cost estimation techniques. Addresses costs of products and other cost objects using job order and process costing, activity-based costing, and cost allocation. Introduces management control topics of budgeting and performance evaluation through variance analysis. Concludes with current topics in cost management. Lab access fee of $25 for computers applies.

ACC 3400
Individual Income Tax
3
* Prerequisite(s): (ACC 2110 AND ACC 2120) OR (ACC 2010 AND ACC 2020), and University Advanced Standing

Studies federal individual income taxes. Covers the accounting theory and practices of federal individual income taxation based on a study of the laws, regulations, and income tax decisions. Lab access fee of $25 for computers applies. Canvas Course Mats $116/Pearson applies.

ACC 3510
Accounting Information Systems
3
* Prerequisite(s): (ACC 3010 or ACC 3030) and (ACC 2500 or IM 2600) and University Advanced Standing

Teaches analysis design and implementation of accounting information systems. Emphasizes accounting cycles, internal controls, and computerized environments. Lab access fee of $25 applies. Canvas Course Mats $85/McGraw applies.

ACC 4030
Governmental and Not For Profit Accounting
3
* Prerequisite(s): ACC 3010 or ACC 3030, University Advanced Standing

Covers areas of governmental and not-for-profit accounting and reporting. Includes fund accounting, the budgetary process, governmental financial reporting, not-for-profit organizations, health care organizations, colleges and universities, and public sector auditing. Lab access fee of $25 for computers applies.

ACC 4050
Financial Statement Analysis
3
* Prerequisite(s): Matriculation into the Woodbury School of Business, and University Advanced Standing

* Prerequisite(s) or Corequisite(s): ACC 3020

Teaches financial statement analysis techniques and practices, such as financial metrics, footnote disclosures, and business profitability. Informs decision making based on practical analysis of financial statement information.
ACC 4110
Auditing 3
* Prerequisite(s): ACC 312G, University Advanced Standing
* Prerequisite(s) or Corequisite(s): ACC 3020
Provides an introduction to independent audits of financial statements in accordance with generally accepted auditing standards, the environment in which audits are performed, and professional ethics. Includes basic audit concepts and procedures related to planning, testing internal controls, investigating reported financial results of business process cycles, and required auditor communications. Lab access fee of $25 for computers applies. Canvas Course Mats $85/McGraw applies.

ACC 4140
Advanced Internal Auditing 3
* Prerequisite(s): Matriculation into the BS Accounting degree program, and University Advanced Standing or Instructor Approval.
Covers advanced topics in the theories of governance, risk, and control concepts; internal auditing standards; and audit techniques.

ACC 4310
Advanced Management Accounting 3
* Prerequisite(s): ACC 3300, University Advanced Standing
Studies and applies advanced topics in Cost Management such as value chain analysis, activity-based management, and other current topics and issues in management accounting. Teaches the principles of management control including strategic planning, budgeting, performance measurement. Includes active class discussion, case analysis, and student presentations.

ACC 4400
Taxation of Business Entities 3
* Prerequisite(s): ACC 3400, University Advanced Standing
Provides an introduction and understanding of the construct and application of the federal tax laws. Studies the federal taxation of corporations, partnerships/LLCs, estates and trusts, gifts, and exempt entities based on the laws, regulations, and associated tax decisions. Covers the professional rules, regulations, and ethical considerations imposed on tax professionals. Lab access fee of $25 for computers applies. Canvas Course Mats $85/ Cengage applies.

ACC 4410
Tax Research 3
* Prerequisite(s): ACC 3010, ACC 3400, Matriculation into the BS Accounting degree program, and University Advanced Standing
Studies theory and practice of tax research as it applies to federal income taxation laws, rules and regulations. Applies ethical considerations and standards to tax practice. Emphasizes computerized tax research techniques which will be explored through cases dealing with administrative aspects of the IRS, court cases, client communications and a wide variety of tax topics.

ACC 4510
Information Systems Auditing 3
* Prerequisite(s): ACC 3510, ACC 312G, Matriculation into any Woodbury School of Business program, and University Advanced Standing
Provides students a project course covering IT audit and its impact on the financial statement audit. Covers information security, social engineering, and fraud data mining are also covered as they relate to accounting information systems and the associated data. May be delivered hybrid. Lab access fee of $25 for computers applies.

ACC 4510
Current Topics in Accounting 1 to 3
* Prerequisite(s): ACC 3010 and University Advanced Standing
Examines the seriousness of fraud and its impact on business and society. Includes forensic accounting and fraud prevention, detection, and resolution.

ACC 470R
Internship 2 to 8
* Prerequisite(s): ACC 3010, Matriculation into the Woodbury School of Business, and University Advanced Standing
Provides an internship opportunity for students to become exposed to emerging technology and topics of current interest and demand in Accounting. Topics vary from semester to semester. Repeatable for a maximum of 3 credits toward graduation.

ACC 481R
Fraud Examination 3
* Prerequisite(s): ACC 3010 and University Advanced Standing
Examines the seriousness of fraud and its impact on business and society. Includes forensic accounting and fraud prevention, detection, and resolution.

ACC 5020
Advanced Financial Accounting 3
* Prerequisite(s): ACC 3020, Matriculation into the BS Accounting degree program, and University Advanced Standing
Provides students a project course covering IT audit and its impact on the financial statement audit. Covers information security, social engineering, and fraud data mining are also covered as they relate to accounting information systems and the associated data. May be delivered hybrid. Lab access fee of $25 for computers applies.

ACC 5120
Advanced Financial Accounting Applications 3
* Prerequisite(s): Admission to Master of Accountancy program
Examines the seriousness of fraud and its impact on business and society. Includes forensic accounting and fraud prevention, detection, and resolution.

ACC 6020
Advanced Financial Accounting Applications 3
* Prerequisite(s): Admission to Master of Accountancy program
Examines the seriousness of fraud and its impact on business and society. Includes forensic accounting and fraud prevention, detection, and resolution.
ACC 6030
Financial Accounting and Reporting
3
* Prerequisite(s): Acceptance into the Master of Accountancy program

Focuses on understanding the nature and financial reporting aspects of complex business transactions such as corporate acquisitions, mergers, and other strategic alliances. Includes accounting for business combinations and the various reporting requirements leading to consolidated financial statements.

ACC 6060
Professionalism and Leadership
3
* Prerequisite(s): Admission to Master of Accountancy program

Enhances the ability to interact and communicate with others in the professional world. Builds skill development in oral and written communication, interviewing, networking, and leadership. Explores and enhances emotional intelligence.

ACC 6130
Case Studies in Auditing
3
* Prerequisite(s): Admission to Master of Accountancy or Master of Business Administration Program

Teaches policies and procedures for internal audit operations by creating risk based audit plans, developing audit objectives, and evaluating audit results.

ACC 6140
Fraud Examination and Forensic Accounting
3
* Prerequisite(s): Admission to Master of Accountancy or the Master of Business Administration Program

Evaluates the seriousness of fraud and its impact on individuals, businesses and society. Formulates fraud prevention, detection, and resolution methods using cases.

ACC 6150
Information Systems Auditing
3
* Prerequisite(s): Admission to Master of Accountancy or Master of Business Administration Program

Provides projects covering information systems audit and its impact on the financial statement audit. Covers information security, social engineering, and fraud data mining as they relate to accounting information systems and the associated data.

ACC 6250
Financial Reporting and Analysis
3
* Prerequisite(s): Acceptance to the MBA program

Discusses financial reporting requirements and choices that impact the evaluation of firm performance and strategy. Examines the role of management and corporate governance in financial reporting. Teaches skills for analyzing financial reports, disclosures, and management communication of financial performance. Focuses on financial reports prepared for external stakeholders to a firm.

ACC 6300
Advanced Data Analytics in Accounting
3
* Prerequisite(s): Admission to Master of Accountancy Program

Covers advanced data analytics, data visualization, and statistical analysis skills and techniques in accounting. Provides an applied approach to financial data analytics, cost accounting, audit analytical procedures, and financial statement analysis. Develops data analysis skills using a variety of software packages. Canvas Course Mats $78/McGraw applies.

ACC 6350
Management Control Systems
3
* Prerequisite(s): Admission to Master of Accountancy or Master of Business Administration Program

Evaluates the design of management control systems through case studies to enable the successful implementation of accounting strategies in a variety of for-profit entities. Emphasizes the development of the students' analytical and decision-making skills. Canvas Course Mats $134/Pearson applies.

ACC 6400
Advanced Taxation of Business Entities
3
* Prerequisite(s): Admission to Master of Accountancy Program

Assesses the appropriate federal income tax for a corporation based on relevant accounting and business data. Analyzes the tax implications related to the form of entity and the location of the entity.

ACC 6440
Partnership Tax
3
* Prerequisite(s): Admission to Master of Accountancy Program

Examines accounting theory and practices of the federal income taxation laws, rules and regulations relating to the formation and operation of partnerships, and their effects upon partners.

ACC 6460
Estate and Gift Tax
3
* Prerequisite(s): Admission to Master of Accountancy or Master of Business Administration Program

Examines the law and theory of federal taxation of estates and gifts based on Federal code, I.R.S. regulations, and digest of official income tax decisions.

ACC 6500
Advanced Accounting Information Systems
3
* Prerequisite(s): Acceptance in the MBA program

Develops the background necessary to plan, design and implement an accounting information system.

ACC 6510
Financial Auditing
3
* Prerequisite(s): Admission to Master of Accountancy Program

Examines current auditing standards for independent audits of financial statements. Explores proposed auditing standards, relevant legislation, and selected contemporary advanced topics in auditing.
ACC 6540
Professional Ethics in Accounting and Auditing
3
* Prerequisite(s): Admission to Master of Accountancy Program

Covers professional ethics and ethical dilemmas faced by accountants and auditors. Uses case studies to present ethical dilemmas and violations of the AICPA’s Code of Professional Conduct (Code), Generally Accepted Accounting Principles (GAAP), and Generally Accepted Auditing Standards (GAAS). Covers diagnosis of ethical dilemmas and violations of the Code, GAAP, and GAAS. Provides opportunity to work collaboratively to design, prescribe, and communicate effective safeguards and resolutions to ethical dilemmas and Code, GAAP, and GAAS violations.

ACC 6560
Financial Accounting Theory and Research I
3
* Prerequisite(s): Admission to Master of Accountancy Program

Introduces the theoretical underpinnings of financial accounting and reporting. Provides an applied research approach to reviewing and mastering intermediate-level financial accounting concepts and procedures. Integrates accounting theory and practical research methodology in the resolution of financial reporting problems.

ACC 6580
Financial Accounting Theory and Research II
3
* Prerequisite(s): Admission to Master of Accountancy Program

Expands on the theoretical underpinnings of financial accounting and reporting. Provides an applied research approach to reviewing and mastering advanced-level financial accounting concepts and procedures. Integrates accounting theory and practical research methodology in the resolution of financial reporting problems.

ACC 6600
Business Law for Accountants
3
* Prerequisite(s): Admission to Master of Accountancy Program

Examines contemporary issues in business law, with an emphasis in accountancy. Studies secured transactions, negotiable instruments, business associations, investor protection, consumer protection, and government regulation in an increasingly global and interconnected business environment.

ACC 6610
Financial Statement Research and Analysis
3
* Prerequisite(s): Admission to Master of Accountancy or Master of Business Administration program.

Teaches financial statement research and analysis, improving decision making based on theoretical and practical research of financial statement information.

ACC 679R
Special Topics in Accounting
3
* Prerequisite(s): Admission to Master of Accountancy program

Varies from semester to semester. Provides opportunities for students to become exposed to emerging technology and topics of current interest and demand in accounting, taxation, auditing, and accounting information systems. May be repeated for a maximum of 6 credits toward graduation.

Aerospace Studies (AERO)

AERO 1000
Leadership Laboratory 1A
.5
Studies basic fundamentals of military leadership: drill, courtesy, planning, and organizing at various levels of responsibility.

AERO 1010
Leadership Laboratory 1B
.5
Studies basic fundamentals of military leadership: drill, courtesy, planning, and organizing at various levels of responsibility.

AERO 1050
The Air Force Today
1
* Corequisite(s): AERO 1000

Teaches development, organization, and doctrine of the U.S. Air Force. Emphasizes Strategic Force requirements.

AERO 1100
Aerospace Defense General Purpose and Support Forces
1
* Corequisite(s): AERO 1010


AERO 143R
Air Force Physical Training
.5
* Corequisite(s): AERO 1000

Prepares students for the physical demands placed upon them at Air Force Field Training encampment normally attended between their sophomore and junior years. Provides leadership opportunities and tests a cadet’s physical fitness. Repeats are allowed. See advisor for details. May be repeated for a maximum of four credits.

AERO 2000
Leadership Laboratory 2A
.5

Teaches fundamentals of military leadership: drill, courtesy, planning, and organizing at various levels of responsibility. Increased emphasis on performance level.

AERO 2010
Leadership Laboratory 2B
.5

Teaches fundamentals of military leadership: drill, courtesy, planning, and organizing at various levels of responsibility. Increased emphasis on performance level.

AERO 2100
The Developmental Growth of Air Power A
1
* Corequisite(s): AERO 2000

Studies development of various concepts of air power employment, emphasizing factors that have prompted research and technological change.

AERO 2110
The Developmental Growth of Air Power B
1
* Corequisite(s): AERO 2010

Studies development of various concepts of air power employment. Emphasizes factors that have prompted research and technological change.

AERO 3000
Leadership Laboratory 3A
.5
* Prerequisite(s): University Advanced Standing

Teaches basic fundamentals of military leadership: drill, courtesy, planning, and organizing at various levels of responsibility. Students perform as cadet officers. Emphasizes leadership development.

AERO 3010
Leadership Laboratory 3B
.5
* Prerequisite(s): University Advanced Standing

Teaches basic fundamentals of military leadership: drill, courtesy, planning, and organizing at various levels of responsibility. Students perform as cadet officers. Emphasizes leadership development.
Course Descriptions

AERO 305R
Leadership Laboratory Honor Guard
1
* Prerequisite(s): University Advanced Standing

Teaches basic fundamentals of military leadership: drill, courtesy, planning, and organizing at various levels of responsibility. Emphasizes leadership development. Students perform as cadet officers. Repeats are allowed. See advisor for details. May be repeated for a maximum of 8 credits.

AERO 3100
Management and Leadership A
3
* Prerequisite(s): University Advanced Standing

Introduces students to the United States Air Force (USAF) and the Reserve Officer Training Corps (ROTC). Includes conflict management, followership, leadership responsibility, officership, and process improvement.

AERO 3110
Management and Leadership B
3
* Prerequisite(s): University Advanced Standing

Introduces students to the United States Air Force (USAF) and the Reserve Officer Training Corps (ROTC). Includes conflict management, followership, leadership responsibility, officership, and process improvement.

AERO 3200
Jet Pilot Introduction
2
* Prerequisite(s): University Advanced Standing

Studies principles of flight and accompanying issues. Introduces meteorology. Presents FARs as they apply to the private pilot. Provides orientation, understanding, and preparation of the US Air Force Undergraduate Pilot Training (UPT).

AERO 399R
Academic Internship Leadership Intern Program
4
* Prerequisite(s): Instructor Approval for Air Force ROTC Cadets only and University Advanced Standing

Provides advanced fundamentals of military leadership, planning, organizing, and team building at various levels of responsibility. May be repeated for a maximum of 4 credits toward graduation. May be graded credit/no credit.

AERO 400R
Leadership Laboratory 4A
.5
* Prerequisite(s): University Advanced Standing

Presents basic fundamentals of military leadership: drill, courtesy, planning, and organizing at various levels of responsibility. Students perform as cadet officers. Emphasizes leadership development. May be repeated for a maximum of 2 credits.

AERO 401R
Leadership Laboratory 4B
.5
* Prerequisite(s): University Advanced Standing

Presents basic fundamentals of military leadership: drill, courtesy, planning, and organizing at various levels of responsibility. Students perform as cadet officers. Emphasizes leadership development. May be repeated for a maximum of 2 credits.

AERO 4100
National Security Affairs A
3
* Prerequisite(s): University Advanced Standing

Studies the military profession, civil-military interaction, and the forming of defense strategy.

AERO 4110
National Security Affairs B
3
* Prerequisite(s): University Advanced Standing

Studies the military profession, civil-military interaction, and the forming of defense strategy.

Automation and Electrical Tech (AET)

AET 1050
Electrical Math I
3
* Prerequisite(s): MAT 1010 or Departmental Approval

Utilizes algebraic formulas and methods to solve electrical problems related to DC electrical systems. Covers the calculation of voltage, current, resistance, power, and efficiency for DC circuits. Teaches circuit analysis techniques such as superposition, source transformations, Thévenin's theorem, mesh and nodal analysis. Introduces wire sizing and resistance calculations pertaining to the National Electrical Code. Introduces AC electrical system fundamentals. Software fee of $20 applies.

AET 1060
Electrical Math II
3
* Prerequisite(s): AET 1050

Utilizes algebraic formulas and methods to solve electrical problems related to AC electrical systems. Covers the calculation of voltage, current, resistance, reactance, impedance, power, VARs, volt-amperes and efficiency for single phase and three phase AC systems. Applies trigonometry, trigonometric functions, complex numbers, and phasors to circuit analysis techniques. Analyzes sine waves, transformers, transformer connections and power factor for single phase and three phase electrical systems. Introduces three phase balanced systems and faults.

AET 1130
Introduction to Automation
2
* Corequisite(s): AET 1135, AET 1150, AET 1155
* Prerequisite(s) or Corequisite(s): AET 1050


AET 1135
Introduction to Automation Lab
1
* Corequisite(s): AET 1130, AET 1150, AET 1155
* Prerequisite(s) or Corequisite(s): AET 1050

Reviews basic DC theory involving voltage, current, resistance, batteries, magnetism, power and the use of digital meters. Engages in troubleshooting techniques and applications of DC circuits in a lab-environment.

AET 1140
Applied AC Theory
1
* Corequisite(s): AET 1145
* Prerequisite(s) or Corequisite(s): AET 1050, AET 1130, AET 1135, AET 1150, AET 1155

Reviews basic AC theory involving voltage, current, resistance, reactance, impedance, magnetism, power and the use of digital meters. Discusses operation of inductors, capacitors, diodes, and transformers. Discusses troubleshooting techniques and applications of AC circuits.
AET 1145
Applied AC Lab
2
* Prerequisite(s): AET 1130, AET 1135, AET 1150, AET 1155
* Corequisite(s): AET 1140
* Prerequisite(s) or Corequisite(s): AET 1050
Reviews basic AC theory involving voltage, current, resistance, reactance, impedance, magnetism, power and the use of digital meters. Discusses operation of inductors, capacitors, diodes, and transformers. Engages in troubleshooting techniques and applications of AC circuits in a lab environment.

AET 1150
Industrial Logic
1
* Corequisite(s): AET 1155, AET 1130, AET 1135
* Prerequisite(s) or Corequisite(s): AET 1050
Introduces digital logic and relay logic theory and industrial applications of logic circuits. Discusses numbering systems, boolean algebra, circuit simplification techniques, and logic devices such as latches, one-shots, timers, counters, flip flops, and shift registers. Emphasizes the relationship between ladder logic and digital logic and focuses on conversion between both formats. Discusses application and troubleshooting of logic circuits and introduces basic concepts of state machines.

AET 1155
Industrial Logic Lab
1
* Corequisite(s): AET 1150, AET 1130, AET 1135
* Prerequisite(s) or Corequisite(s): AET 1050
Applies digital logic and relay logic theory to industrial circuits in a hands-on setting. Utilizes boolean algebra and circuit simplification techniques when building logic circuits. Implements control circuits with relays, logic gates, and other applicable digital devices. Applies troubleshooting techniques to industrial control circuits.

AET 1250
Industrial Electrical Code
2
* Prerequisite(s): (AET 1140, AET 1145) or Department Approval
* Prerequisite(s) or Corequisite(s): AET 1060
Covers pertinent topics within the National Electrical Code related to commercial and industrial environments. Covers code related to electrical plans, specifications, wiring and installation methods, feeder load calculations, motor installation, motor controllers, panelboards, hazardous locations, protective devices, and grounding for commercial and industrial applications. Software fee of $18 applies. Lab access fee of $45 for computers applies.

AET 1280
Electric Motor Control
4
* Prerequisite(s): AET 1140, AET 1145
* Corequisite(s): AET 1285
* Prerequisite(s) or Corequisite(s): AET 1060, AET 1250
Covers installation, troubleshooting, preventive maintenance, and theory on DC/AC motors, generators, and associated industrial control circuitry. Expands on ladder logic, controllers, panelboards, hazardous locations, load calculations, motor installation, motor wiring and installation methods, feeder related to electrical plans, specifications, and industrial environments. Covers code related to commercial.

AET 1285
Electric Motor Control Lab
4
* Prerequisite(s): AET 1140, AET 1145
* Corequisite(s): AET 1280
* Prerequisite(s) or Corequisite(s): AET 1060, AET 1250
Covers the proper use of tools and test equipment needed to maintain motors and their controllers. Emphasizes the use of schematics, line diagrams, ladder logic, and wiring diagrams. Covers DC/AC, single phase, and three phase motors. Integrates logic design, motor protection, and wiring of motor control centers. Includes the workings of single phase and three phase transformers including delta and wye connections. Course Lab fee of $14 for supplies/materials applies. Lab access fee of $45 for computers applies. Software fee of $20 applies.

AET 2010
Manufacturing Technology
1
* Corequisite(s): AET 2015
Provides exposure to manufacturing technology and equipment that is used to fabricate industrial components utilizing machine shop technology. Covers safety and basic machining principles on a manual lathe and mill. Presents fundamental concepts of CNC programming and 3D modeling as it relates to a CAD/CAM system. Discusses basics of measuring and cutting tools, and shop mathematics as it relates to manufacturing. Covers fundamental principles from the machinery's handbook.

AET 2015
Manufacturing Technology Lab
2
* Corequisite(s): AET 2010
Provides exposure with a hands-on approach to manufacturing technology and equipment that is used to fabricate industrial components utilizing machine shop technology. Covers safety, and basic machining principles on a manual lathe and mill. Presents fundamental concepts of CNC programming and 3D modeling as it relates to a CAD/CAM system. Discusses basics of measuring and cutting tools, and shop mathematics as it relates to manufacturing. Covers fundamental principles from the machinery's handbook to manufacture and assembly.

AET 2110
Industrial Electronics I
4
* Prerequisite(s): AET 1280, AET 1285, AET 1250
* Corequisite(s): AET 2115
* Prerequisite(s) or Corequisite(s): AET 2250, AET 2255
Introduces semiconductor theory. Covers the concepts of PN junctions, transistors, voltage amplifiers, operational amplifiers, diodes, power electronics including the theory and operation of industrial solid state thyristor devices, power circuits, integrated circuits and other special semiconductor and industrial electronics. Includes lecture and demonstrations. Course lab fee of $29 for materials applies. Lab access fee of $45 for computers applies.

AET 2115
Industrial Electronics I Lab
2
* Prerequisite(s): AET 1280, AET 1285, AET 1250
* Corequisite(s): AET 2110
* Prerequisite(s) or Corequisite(s): AET 2250, AET 2255
Introduces semiconductor theory. Covers the concepts of PN junctions, transistors, voltage amplifiers, operational amplifiers, diodes, power electronics including the theory and operation of industrial solid state thyristor devices, power circuits, integrated circuits and other special semiconductor and industrial electronics. Includes practical hands-on labs. Software fee of $20 applies. Lab access fee of $45 applies.
AET 2150
Introduction to Fluid Power Systems
2
* Prerequisite(s): AET 2250, AET 2255, AET 2110, AET 2115
* Corequisite(s): AET 2150
Covers the fundamentals of hydraulic and pneumatic components and systems used in industrial applications. Studies pumps, motors, directional and flow control valves, cylinders, transmission, and fluids. Emphasizes maintenance, safety, and environmental problems. Examines troubleshooting techniques and blueprint/print reading. Course Lab fee of $15 for supplies/materials applies. Lab access fee of $45 computers applies.

AET 2155
Introduction to Fluid Power Systems Lab
1
* Prerequisite(s): AET 2250, AET 2255, AET 2110, AET 2115
* Corequisite(s): AET 2150
Covers the fundamentals of hydraulic and pneumatic components and systems used in industrial applications. Studies pumps, motors, directional and flow control valves, cylinders, transmission, and fluids. Emphasizes maintenance, safety, and environmental problems. Examines troubleshooting techniques and blueprint/print reading. Software fee of $20 applies. Lab access fee of $45 applies.

AET 2160
Introduction to Industrial Internet of Things
2
* Prerequisite(s): AET 2250, AET 2255, AET 2110, AET 2115
* Corequisite(s): AET 2160
Introduces smart sensors, safety, and basic electronic components found in variable speed drives. Covers stepper and servo motor integration via Ethernet/IP. Introduces industrial networking principles related to unmanaged and managed switches. Includes lecture and demonstration. Course Lab fee of $11 for materials applies. Lab access fee of $45 computers applies.

AET 2165
Introduction to Industrial Internet of Things Lab
1
* Prerequisite(s): AET 2250, AET 2255, AET 2110, AET 2115
* Corequisite(s): AET 2160
Introduces smart sensors, safety, and basic electronic components found in variable speed drives. Covers stepper and servo motor integration via Ethernet/IP. Introduces industrial networking principles related to unmanaged and managed switches. Includes practical hands-on labs. Software fee of $20 applies. Lab access fee of $45 applies.

AET 2250
Industrial Programmable Logic Controllers—PLCs
4
* Prerequisite(s): AET 1280, AET 1285, AET 1250
* Prerequisite(s): AET 2255
* Corequisite(s): AET 2110, AET 2115
Covers the theory, programming, and industrial control system applications of small and medium sized programmable logic controllers (PLCs). Studies basic maintenance, operation, troubleshooting, and programming instructions/techniques for industrial PLCs. Concentrates on interfacing analog and digital I/O to the PLC. Covers human machine interface (HMI) configuration, programming and PLC integration. Includes lecture, demonstration, print reading, and industry examples. Course lab fee of $90 for equipment applies. Lab access fee of $45 for computers applies. Canvas Course Mats $78/McGraw applies.

AET 2255
Industrial Programmable Logic Controllers—PLCs Lab
2
* Prerequisite(s): AET 1280, AET 1285, AET 1250
* Prerequisite(s): AET 2255
* Corequisite(s): AET 2110, AET 2115
Covers the theory, programming, and industrial control system applications of small and medium-sized programmable logic controllers (PLCs). Examines basic maintenance, programming, and troubleshooting techniques for industrial PLCs. Covers human-machine interface (HMI) configuration, programming, and PLC integration. Includes PLC communications via serial and industrial Ethernet. Includes hands-on labs and projects. Software fee of $20 applies. Lab access fee of $45 applies.

AET 2270
Industrial Programmable Automation Controllers—PACs
2
* Prerequisite(s): AET 2250, AET 2255, AET 2110, AET 2115
* Corequisite(s): AET 2275
Introduces the theory and application of advanced industrial programmable automation controller (PAC) instructions, user-defined data types, add-on instructions, and advanced programming techniques. Develops PAC programs using ladder logic and function blocks to control systems and machines. Covers PAC integration of devices to variable speed drives, sensors, and encoders. Implements advanced human-machine interface (HMI) programming. Integrates programmable safety relays into class projects. Includes hands-on labs and projects. Software fee of $20 applies. Lab access fee of $45 applies.

AET 2275
Industrial Programmable Automation Controllers—PACs Lab
1
* Prerequisite(s): AET 2250, AET 2255, AET 2110, AET 2115
* Corequisite(s): AET 2270
Covers the implementation and application of advanced industrial programmable automation controller (PAC) instructions, user-defined data types, add-on instructions, and advanced programming techniques. Develops PAC programs using ladder logic and function blocks to control systems and machines. Covers PAC integration of devices to variable speed drives, sensors, and encoders. Implements advanced human-machine interface (HMI) programming. Integrates programmable safety relays into class projects. Includes hands-on labs and projects. Software fee of $20 applies. Lab access fee of $45 applies.
AIST 281R
Cooperative Work Experience
1 to 8
* Prerequisite(s): Approval of Department Chair

Provides paid on-the-job work experience that relates to the electrical and automation field. Implements and executes goals/learning objectives based on the job description from their work assignment. Reports on goals and learning objectives at the end of the experience. Work experience, the related class, and enrollment are coordinated by the AET Cooperative Coordinator. May be graded credit/no credit. May be repeated for a maximum of 16 credits toward graduation.

AIST 285R
Cooperative Correlated Class
1
* Prerequisite(s): Approval of Department Chair

Designed to identify on-the-job problems and to remedy those problems through in-class discussion and study. Focuses on preparing for, participating in, and utilizing the experiences available from working in a cooperative education/internship program. May be graded credit/no credit. May be repeated for a maximum of 8 credits toward graduation.

AIST 2900
Capstone Project
3
* Prerequisite(s): AET 2010, AET 2015

 Integrates the concepts of Automation and Electrical Technology curriculum into a semester-long project that will be designed, built, and presented at the Engineering Technology Fair.

AET 291R
Special Topics in Industrial Systems
3
* Prerequisite(s): AET 2250, AET 2255, AET 2110, AET 2115

Explores special topics in the electrical, power, and automation fields. Offers topics depending on demand and industry needs. May be repeated for a maximum of 6 credits toward graduation. Lab access fee of $45 applies.

American Indian Studies (AIST)

AIST 180G (Cross-listed with: ANTH 180G) SS
Introduction to American Indian Studies
3

Provides an overview of modern and historical American Indian communities in the United States. Explores political and historical issues of major tribes and Indian communities by region. Provides students with information and perspectives on key social and cultural issues: spirituality, relations with the Federal government, notable individuals, art, literature, dance, media, health, education and activism.

AIST 327G
Indians of Utah
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing

Investigates the history of Utah's five principal cultural groups from the pre-Columbian period to the present. Considers how economic processes, cross-cultural influences, and changing Federal and State policies have shaped American Indian communities and individuals in and around Utah. Examines how identity and culture in native communities have been defined and redefined through the processes of migration (both native and non-native), conquest, assimilation efforts, and cultural persistence.

AIST 3360
American Indian Education Policy
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing

Discusses the Federal Indian Policies that dictated the educational philosophies and practices of native people. Offers a historic overview of Indian education from first contact with European settlers through contemporary American Indian/Alaskan Native education. Examines the effects of Federal Indian Policies related to the use of boarding schools and the long-term effects the experience had on Native students.

AIST 358G
American Indian Health Policy
3
* Prerequisite(s): ENGL 2010, University Advanced Standing, and one of the following: POLS 1000, POLS 1100, HIST 1700, HIST 1740, HIST 2700, HIST 2710

Explores the history, political economy, and epidemiology of American Indian health issues in the United States. Examines the effects of the pandemics brought by the European conquest, the changing Native views and practices in health, the Federal government's practical and legal assumption of responsibility for Native health, and the development of the administration and organization for Native health. Considers modern health issues ranging from diabetes to domestic violence, and the policy responses to them.

AIST 3590
American Indian Law
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and (POLS 1000 or POLS 1010 or POLS 1100) and University Advanced Standing

Introduces students to the important and unique body of law known as American Indian Law. Covers the history of federal Indian law and policy; the federal-tribal relationship; tribal sovereignty and self-government; state authority in Indian country; Indian religion and culture; concepts of property in Indian law; and hunting, fishing, and water rights.

AIST 3600
American Indian Policy and Tribal Government
3
* Prerequisite(s): ENGL 2010 or instructor approval and University Advanced Standing

Examines American Indian law in treaties, statutes, case law, regulations, and executive orders. Analyzes various policy approaches to the federal trust relationship, tribal sovereignty over internal affairs, civil jurisdiction over tribal lands, management of natural resources of tribal lands, and cultural preservation. Studies the traditional and modern forms of various Indian tribal governments.

AIST 3810
Pre-Columbian America
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and AIST 180G and University Advanced Standing

Examines evidence of the first Americans, origins of agriculture, and development of cultures and civilizations in North, Central, and South America. Surveys the most recent archaeological research on major American societies, emphasizing the balance between Native and Euro-American perspectives on history and science. Examines the effects of the European conquest of the Americas on Native populations and cultures, and on global historical processes.

AIST 3830
Indians of the Great Plains
3
* Prerequisite(s): (HIST 1700 or HIST 2700 or HIST 2710 or AIST 180G) and (ENGL 1010 or ENGH 1005) and University Advanced Standing

Surveys the histories of native communities of the Great Plains. Emphasizes geopolitical relations of the eighteenth and nineteenth centuries and the conditions of resistance to conquest. Highlights the identification and use of primary sources, both for scholarly activity and making sources available to native peoples.

AIST 3850
The Struggle for Self-determination American Indians 1891 to present
3
* Prerequisite(s): (HIST 1700 or HIST 2700 or HIST 2710 or AIST 180G) and (ENGL 1010 or ENGH 1005) and University Advanced Standing

Surveys American Indian history from the Wounded Knee Massacre of 1891 to the present. Examines how American Indians shifted from armed conflict to the employment of legal and political strategies for achieving self-determination.
American Studies

**AMST 2000**
Introduction to American Studies
3
Introduces students to the interdisciplinary study of American culture. Employs insights and approaches from literature, history, art, sociology, anthropology, and political science. Analyzes a variety of texts and artifacts. Explores selected themes and issues central to American Studies.

**AMST 300R**
Topics in American Studies
3
* Prerequisite(s): University Advanced Standing
Uses an interdisciplinary approach to study various topics and themes in American Studies. Topics might include Western American Culture, Nature and Culture, Popular Culture in America, Mass Media in America, etc. May be repeated for up to 6 credits toward graduation.

**Anthropology (ANTH)**

**ANTH 101G**
Social Cultural Anthropology
3
* Prerequisite(s): ENGL 1010 or ENGH 1005 and (ANTH 101G or BIOL 1010)
Introduces students to the variability of human behavior cross-culturally and provides an understanding of the holistic approach to human behavior. Explores interrelationships, in a variety of cultural contexts, between beliefs, economic structures, sexuality, eating habits, ecology, politics, living arrangements, psychology, symbolism, and kinship. May be delivered hybrid.

**ANTH 1020**
(Cross-listed with: BIOL 1500)
Biological Anthropology
3
* Prerequisite(s): ENGL 1010 or ENGH 1005 and (ANTH 101G or BIOL 1010)
For students with special interests in Anthropology or the Life Sciences. Studies fossils and living primates, primate biology and behavior. Surveys humanoid fossils. Investigates human evolution and variations of basic biology as it pertains to human development. Stresses the importance of the distribution and diversity of humankind.

**ANTH 103G**
World Prehistory
3
Introduces the archaeological record of human prehistory. Explores the earliest fossil remains, and follows the development of humans throughout prehistory. Examines techniques used by archaeologists to find, recover, date, and analyze prehistoric artifacts.

**ANTH 180G**
(Cross-listed with: AIST 180G)
Introduction to American Indian Studies
3
Provides an overview of modern and historical American Indian communities in the United States. Explores political and historical issues of major tribes and Indian communities by region. Provides students with information and perspectives on key social and cultural issues: spirituality, relations with the Federal government, notable individuals, art, literature, dance, media, health, education and activism.

**ANTH 2880**
Introduction to Theory and Ethnography
3
Provides foundational skills for analytic reading and writing in anthropology. Explores how to apply theory to ethnographic data. Teaches how to write argumentative essays that engage with anthropological texts.
ANTH 3210
Islam in the Modern World
3
* Prerequisite(s): University Advanced Standing

Explores the different ways anthropologists have studied Muslim social life, including attempts to apply Muslim ethical frameworks to the domains of finance, politics, leisure, and the modern domestic sphere. Addresses the variety of ways Islam is practiced and interpreted. Covers Islam in Africa, the Middle East, Central and Southeast Asia, Europe and the United States. Explores issues in interfaith relations, such as the challenges Muslims face when living in a Christian-majority society.

ANTH 3260
Archaeological Method and Theory
3
* Prerequisite(s): University Advanced Standing

Explores the history, goals, theories, and methods of anthropological and archaeological research, especially as influenced by the natural sciences. Examines variations in prehistoric human behavior by analyzing the physical remains of ancient peoples throughout diverse time periods and geographical locations.

ANTH 3300
Culture Development and International Aid
3
* Prerequisite(s): University Advanced Standing

Provides an overview of the anthropological study of international development. Analyzes development practices and anthropological critiques of these practices. Explores the way anthropological approaches can increase the likelihood of development project success. Explores peasant studies and the many concerns of rural development. Discusses poverty and how it relates to economic, social, and political development. Appraises ways to ameliorate poverty and the role of governmental and non-governmental organizations in the process.

ANTH 3315
Great Basin Archaeology
3
* Prerequisite(s): University Advanced Standing

Investigates the prehistoric and ethnographic peoples of the Great Basin of North America through the study of their archaeological remains. Examines how the analysis of ancient technology, subsistence, skeletal material, rock art, settlement patterning, the environment, and archaeological theory shapes our understanding of cultures in the region. May include a field trip to an archaeological site.

ANTH 3340
Populaces and Cultures of Mexico
3
* Prerequisite(s): University Advanced Standing

Explores the people and cultures of Mexico. Discusses borders and immigration, indigenous cultures, rural/peasant societies, urban societies, and historical/political issues specific to Mexico. Emphasizes awareness of cultural relativity and global connectivity among the diverse peoples of Mexico.

ANTH 3350
Andean Prehistory
3
* Prerequisite(s): ANTH 101G and (ENGL 101G and (ANTH 103G or instructor approval) and University Advanced Standing

Offers an updated synthesis of the development, key achievements, material, organizational and ideological features of pre-Hispanic cultures of the Andean region of western South America. Span from around 12,000 years of pre-Hispanic cultural developments, from the earliest hunters-gatherers to the Spanish conquest of the Inca Empire. Focuses on the modern nation of Peru with an emphasis on the Paiján, Cupisnique, Chavín, Paracas, Nasca, Gallinazo Moche, Recuay, Tiwanaku, Wari, Cajamarca, Sicán, Chimú, and Inka.

ANTH 3360
Contemporary Issues in American Culture
3
* Prerequisite(s): University Advanced Standing

Examines key aspects of contemporary American culture. Discusses American values and popular culture, ethnicity, gender, childhood, food, reproduction, technology, crime, and globalization. Highlights aspects of American culture that may not be explored in other Behavioral Science curricula.

ANTH 3365
Gender and Sexuality
3
* Prerequisite(s): University Advanced Standing

Examines theories on the biological and cultural construction of sex and gender. Covers how different communities organize their lives around gender distinctions and sexual practices. Utilizes anthropological theories to analyze cultural practices and concepts pertaining to the following: differences between men and women, perceived sexual deviance and accepted sexual practices, non-binary people and third genders. Explores the way contradictory gender norms coexist and compete within the same culture.

ANTH 3370
History and Ethnography of Andean Societies
3
* Prerequisite(s): University Advanced Standing

Explores the social and cultural processes that characterize the societies that descend from the Inca Empire—Bolivia, Ecuador, and Peru—as they have developed since the Spanish invasion. Discusses contemporary political, economic, and social problems in these countries in the context of global society.

ANTH 3400
Myth Magic and Religion
3
* Prerequisite(s): University Advanced Standing

Explores the many aspects of religion, including its history, diversity, and how it relates to social science studies. Examines terms such as myth, magic, religion, ritual and shamanism, among others. Covers how these terms are used to discuss religious and spiritual practices around the world.

ANTH 3420
Andean Religion
3
* Prerequisite(s): University Advanced Standing

Explores religion prior to the Spanish conquest in the countries that were part of the Inca Empire—Bolivia, Ecuador, and Peru. Surveys the nature of Catholicism that was recreated after colonial conquest. Discusses the contemporary religious issues of Andean societies, such as secularity, and how Andean religious categories differ from categories that guide academic research on religion.

ANTH 3450
Shamanism and Indigenous Religion
3
* Prerequisite(s): University Advanced Standing

Explores the religious systems of indigenous peoples, particularly those which have been called shamanic. Focuses on the classical study of shamanism and the literature on indigenous shamanism. Locates the study of shamanism within a social context that includes social relational and political economic contexts of the groups within which shamanism is found. Poses questions of how shamanism is different from the expanding world religions and compares and contrasts shamanism with non-shamanic indigenous religions. Analyzes at the current marketing of shamanism in New Age contexts.

ANTH 3460
Anthropology of Mormonism
3
* Prerequisite(s): University Advanced Standing

Explores how an anthropological approach can enable a more in-depth comprehension of Mormonism as a religious tradition and cultural phenomena.
ANTH 3480  
Global Christianity  
3  
* Prerequisite(s): University Advanced Standing

Explores the key issues that have arisen in the literature that explores Christianity from an anthropological perspective. Examines the development of Christianity from its historical origins to its current status as a "world religion." Discusses how Christianity becomes relevant to different cultural contexts in the modern world. Analyzes Pentecostal, Evangelical Protestant, Eastern Orthodox, and Catholic forms of Christianity.

ANTH 3500  
Discourse Semiotics and Representation  
3  
* Prerequisite(s): University Advanced Standing

Explores classical theoretical positions on representation, meaning, discourse, and poetics. Examines performance of culture and the implications of performance theory for scientific epistemology and methodology. Surveys recent work by anthropologists who grapple with these theoretical concerns in empirical research in a range of global settings.

ANTH 3550  
Memory and History  
3  
* Prerequisite(s): University Advanced Standing

Studies how societies remember and represent their past and present in various contexts. Examines how societies employ different senses of temporality in these processes. Explores the relationships with historiography and ethnohistory and how anthropologists and historians have dealt with these issues.

ANTH 3560  
Peace Violence and Human Morality  
3  
* Prerequisite(s): University Advanced Standing

Explores the cultural patterning of violence and nonviolence. Draws on theories of human values and ethics to understand how people morally justify different types of violent action, such as riots, genocide, warfare, and ritual violence. Explores cultural processes of pacifism, self-sacrifice, and reconciliation.

ANTH 3660  
Globalized Society  
3  
* Prerequisite(s): University Advanced Standing

Explores the development and reactions to globalization. Traces the formation of community of nation-states and multilateral agencies called "global society." Explores the implications of global society for peoples far removed from this sphere of social organization. Provides an understanding of the world in which nation-states and their citizens are enmeshed.

ANTH 3700  
Culture Psychology and Mental Health  
3  
* Prerequisite(s): University Advanced Standing

Explores interrelationships of individual personality to elements of Western and non-Western sociocultural systems. Examines relations of sociocultural contexts to self, motives, values, personal adjustment, stress and pathology using case histories and ethnography. Discusses the idea of self and personality, normality and deviance, and mental health and mental illness across social and cultural boundaries.

ANTH 3720  
Applied Anthropology  
3  
* Prerequisite(s): ANTH 101G, ENGL 2010, and University Advanced Standing

Surveys the ethics and methods used by applied anthropologists. Surveys a range of areas where applied work is performed, including development anthropology, anthropology and health, industrial anthropology, anthropology and marketing, etc. Also explores the political, social, and theoretical implications of applied work.

ANTH 3750  
Bioarchaeology  
3  
* Prerequisite(s): [(ANTH 1020 or BIOL 1500) and (ENGL 2010 with a minimum C+ grade) or Instructor approval] and University Advanced Standing

Focuses on the biological and contextual study of human remains recovered from archaeological sites. Presents an updated synthesis of bio-archaeological science dealing with the study of the human skeleton to reconstruct patterns of biological stress, infectious disease, lifestyle and physical activity, diet, violent death, and genetic relationships in the past. Temporal coverage principally falls on the last 10,000 years of history, and the spatial scope is global. Involves the dynamic nature of skeletal tissues and the influences of environment and culture on human variation. Acquired skills will be of value to any students interested in skeletal studies including archaeology, bioarchaeology, paleoanthropology, forensic science, vertebrate biology, biomedical sciences, and behavioral science.

ANTH 3830  
Biology and Culture  
3  
* Prerequisite(s): (ANTH 101G or ANTH 1020) and (ENGL 2010 with a minimum grade of C+) and University Advanced Standing

Explores the interactions of nature and nurture as a complex whole, rather than as mutually exclusive possibilities or separate streams of influence. Includes a significant research project.

ANTH 3850  
Ethnographic Methods WE  
3  
* Prerequisite(s): ANTH 101G and University Advanced Standing

Examines the utility of ethnographic research techniques for answering different research questions. Formulates research ethics protocols. Engages in participant observation research and teaches techniques for recording observations in field notes. Employs ethnographic writing genres to compose reports on original research. Develops skills in qualitative interview techniques and the analysis of qualitative data.

ANTH 3870  
Political Anthropology  
3  
* Prerequisite(s): University Advanced Standing

Explores anthropological theories of politics and power in relation to human events and social institutions. Provides a critical history of anthropological approaches to understanding processes of regulating and controlling populations, of justifying and executing power, of coaxing populations into self-governance, and of disciplining deviance. Analyzes political processes in non-state societies and the workings of nation-states.

ANTH 4120  
History of Anthropological Thought  
3  
* Prerequisite(s): ANTH 101G and (ENGL 2010 with a minimum C+ grade) and University Advanced Standing

Surveys anthropological thought, theory and its philosophical roots from the nineteenth to the twentieth centuries. Focuses on the concepts and theoretical paradigms deployed in different social and intellectual conjunctures, as well as on the major debates that have formed the field and separated it from other social science disciplines.

ANTH 4130  
Contemporary Theory and Debates  
3  
* Prerequisite(s): ANTH 101G, ANTH 4120, and University Advanced Standing

Explores social theory and other disciplines. Surveys current debate through exploration of the conceptual apparatuses that are deployed and the issues that motivate current research. Analyzes contemporary anthropological writings.
ANTH 4310
Kinship and the Family

3
* Prerequisite(s): University Advanced Standing
Explores anthropological thinking on familial relationships and uses theoretical concepts to analyze a variety of kinship practices. Covers the history of the anthropology of kinship. Evaluates the adequacy of different anthropological approaches to kinship for understanding the distinct ways humans organize themselves into family groups.

ANTH 475R
Current Topics in Anthropology

1 to 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Presents selected topics in Anthropology and will vary each semester. May be repeated for a maximum of 15 credits toward graduation.

ANTH 482R
Archaeological Field Methods Practicum

1 to 9
* Prerequisite(s): University Advanced Standing
Introduces students to archaeological field technique and a critical approach to the methods by which archaeology is conducted. Provides involvement in all phases of field excavation, lab processing, curation and preservation of archaeological remains, and data analysis. Provides students with hands-on training in archaeological research. May be repeated for a maximum of 27 credits. May be graded Credit/No Credit.

ANTH 490R
Independent Studies

1 to 3
* Prerequisite(s): For Behavioral Science Bachelor Degree students only; Instructor approval and University Advanced Standing
For qualified students who wish to undertake a well-defined project or directed study related to an area of special interest. Requires individual initiative and responsibility. Includes limited formal instruction and faculty supervision. Projects may include writing a publishable paper, passing a competency exam, producing an annotated bibliography, an oral presentation, or other options as approved by instructor. May be repeated for a maximum of 6 credits.

**Apprentice (APPR)**

APPR 281R
Cooperative Work Experience

1 to 8
* Corequisite(s): APPR 285R
Designed for electrical construction apprentice majors. Provides paid, on-the-job work experience in the student's major. Work experience, the correlated class and enrollment are coordinated by the Cooperative Coordinator. Includes student, employer and coordinator evaluations, on-site work visits, written assignments and oral presentations. Provides experience in writing and completing individualized work objectives that improve present work performance. May be graded Credit/No Credit.

APPR 285R
Cooperative Correlated Class

1
* Corequisite(s): APPR 281R
Designed for electrical construction apprentice majors. Identifies on-the-job problems and provides remediation of those problems through in-class discussion and study. Includes the study of identifying and maximizing service opportunities. Students register for this class with approval of the Cooperative Coordinator. Includes lecture, guest speakers, video tapes, role playing, case analysis, oral presentation and written assignments. Completers should be better able to perform in their field of work or study.

**Architecture (ARC)**

ARC 1010
Classical Architecture Workshop

3
* Prerequisite(s): EGDT 1020 and EGDT 1100 with a grade of C- or higher
Prepares for the Construction Documents Technician (CDT) industry certification using standard software to complete working drawings for the architectural, civil, MEP, and structural industries. Develops a building project of significant merit by measuring and documenting a selected site. Analyzes the complex elements of a site such as varying topography, watercourses, vegetation, habitats, weather patterns, and historical data to guide design decisions. Searches elements to determine the building placement, orientation, form and material selection.

ARC 2110
Architecture Studio I

4
* Prerequisite(s): EGDT 1020 and ARC 1010 with a grade of C- or higher
Introduces the classical theories of architectural language, design, and craftsmanship in a hands on studio setting. Focuses on the classical vocabulary of the built environment. Emphasizes the forms, spaces, and ordering systems of design. Produces hand drawings in orthographic, perspective, and axonometric views. Illustrates light through shade and typography. Applies understanding of classical building forms in the design of increasingly complex projects. Develops skills in traditional rendering and presentation techniques.

ARC 2210
Architecture Studio II

4
* Prerequisite(s): EGDT 1020, ARC 1010, and ARC 2110 with a grade of C- or higher
Introduces the classical theories of architectural language, design, and craftsmanship in a hands on studio setting. Focuses on the classical vocabulary of the built environment. Emphasizes the forms, spaces, and ordering systems of design. Produces hand drawings in orthographic, perspective, and axonometric views. Illustrates light through shade and typography. Applies understanding of classical building forms in the design of increasingly complex projects. Develops skills in traditional rendering and presentation techniques.

ARC 2220
Construction Documents and Specifications

3
* Prerequisite(s): EGDT 1020 and EGDT 1100 with a grade of C- or higher
Prepares for the Construction Documents Technician (CDT) industry certification using standard software to complete working drawings for the architectural, civil, MEP, and structural industries. Develops a building project of significant merit by measuring and documenting a selected site. Analyzes the complex elements of a site such as varying topography, watercourses, vegetation, habitats, weather patterns, and historical data to guide design decisions. Searches elements to determine the building placement, orientation, form and material selection.

ARC 3110
Architecture Studio III

6
* Prerequisite(s): Matriculation to the B-Arch Program and University Advanced Standing
Immerses students into the architecture studio culture and a design thinking environment. Emphasizes the fundamental design skills with attention on site and precedent. Requires research of a site and program necessary to develop cultural, theoretical, environmental, and historical contexts. Follows a Project based approach with a final presentation to a professional jury.
Course Descriptions

ARC 3120
Architectural Graphic Communication
3
* Prerequisite(s): Matriculation to the B-Arch Program and University Advanced Standing
Enables the student to confidently communicate design ideas to others. Includes involvement in producing complex 3D models and renderings of various project types. Combines traditional drawing techniques and contemporary software to complete assignments and projects.

ARC 3130
Codes and Construction Law
3
* Prerequisite(s): EGDT 2100, EGDT 2610 both with a grade of C- or higher and University Advanced Standing.
Explores the modern building codes and how they affect building design and construction. Examines written specifications and the various jurisdictional requirements for architectural works. Provides in-depth information about the preparation and content necessary for a set of construction documents. Defines and explains the several types of construction contracts, bidding requirements, methods of specifying, substitutions, instructions, and warranties.

ARC 3210
Architecture Studio IV
6
* Prerequisite(s): ARC 3110 with a grade of C- or higher and University Advanced Standing.
Engages in the essential pre-design processes of a project type. Includes the assessment of client and user needs, space analysis, and examination of project site. Follows a project based approach with a final presentation to a professional jury.

ARC 3220
Passive Environmental Systems
3
* Prerequisite(s): Matriculation to the B-Arch degree program, University Advanced Standing.
Examines the principles of environmental systems design and the building envelope's affect on occupant comfort. Investigates passive heating and cooling strategies, natural ventilation, solar geometry, daylighting, climate considerations, thermal comfort, and mechanical systems.

ARC 3230
Global History of Architecture to 1700 WE
3
* Prerequisite(s): Matriculation to the B-Arch degree program, University Advanced Standing.
Explores the history of architecture and urbanism from a global perspective, beginning with the first settlements to roughly 1700 AD. Analyzes buildings and their surroundings through different methods of interpreting history. Presents that architecture is the result of complex interrelationships dealing with aesthetic, cultural, contextual, symbolic, religious, social, economic, political, technological, behavioral, and ecological issues.

ARC 4110
Architecture Studio V
6
* Prerequisite(s): ARC 3210 with a grade of C- or higher and University Advanced Standing.
Produces an architectural design as part of an interdisciplinary team. Integrates a complex architectural program and associated needs of a user. Utilizes collaboration between disciplines such as mechanical, civil, and electrical engineering. Follows a project-based approach with a final presentation to a professional jury.

ARC 4120
Active Environmental Systems
3
* Prerequisite(s): ARC 3220 and University Advanced Standing
Investigates the principles of environmental systems design and the building envelope's affect on occupant comfort and life safety. Investigates HVAC systems, indoor air quality, lighting, communication, security, fire protection, acoustics, vertical transportation, electrical, and plumbing systems.

ARC 4130
Global History of Architecture Since 1700 WE
3
* Prerequisite(s): ARC 3230 with a grade of C- or higher. Matriculation to the B-Arch degree program, and University Advanced Standing.
Explores the history of architecture and urbanism from a global perspective beginning with the first settlements since 1700 AD. Analyzes buildings and their surroundings through different methods of interpreting history. Explores architecture's complex interrelationships dealing with aesthetic, cultural, contextual, symbolic, religious, social, economic, political, technological, behavioral, and ecological issues.

ARC 4210
Architecture Studio VI
6
* Prerequisite(s): ARC 4110 with a grade of C- or higher and University Advanced Standing
Immerses students in the design of an architectural work to fulfill a community need. Encourages networking with community leaders and citizens. Employs project components such as client interviews, research methods, and interdisciplinary study. Explores a complex architectural program and associated needs of the community.

ARC 4220
Building Envelope and Science
3
* Prerequisite(s): ARC 4120 with a grade of C- or higher and University Advanced Standing
Introduces modern architectural materials, methods of construction, and building enclosures including steel, concrete, curtain walls, high-performance materials, and thermal and moisture barriers. Evaluates the inclusion of sustainable systems to save energy and reduce the carbon footprint in building construction.

ARC 4230
Capstone Project Research
3
* Prerequisite(s): ARC 4210 with a grade of C- or higher and University Advanced Standing
* Corequisite(s): ARC 4510, ARC 4540
Applies investigative, pre-design, and research skills towards an independent capstone project. Integrates critical thinking while developing an architectural building program, assessing client-user needs, selecting a project site, analyzing environmental and climatic concerns, understanding building code requirements, analyzing the immediate site context and historic fabric, and planning for site specific zoning regulations.

ARC 4510
Architecture Studio VII
6
* Prerequisite(s): ARC 4210 with a grade of C- or higher and University Advanced Standing
Applies design skills through an architectural work which integrates critical and abstract thinking. Researches building systems, life safety considerations, building envelope, financial, cultural & environmental balance, and construction documentation skills.
ARC 4520  
Architectural Theory  
3  
* Prerequisite(s): ARC 3210, with a grade of C- or better and University Advanced Standing  
Surveys contemporary architectural thought and theory. Focuses on key figures, movements, and texts. Provides an overview of the principal theories that have informed or undermined architecture of the past four decades. Considers the changing role of theory with respect to practice. Provides a set of questions, techniques, and tools for criticism and self-reflection.

ARC 4530  
Culture and Behavior in Architecture  
3  
* Prerequisite(s): ARC 4110 with a grade of C- or better and University Advanced Standing  
Examines the relationship between architecture, culture, history, economics, and humanity. Explores varying cultures and human behaviors and how they represent and manifest themselves in the built environment.

ARC 4540  
Architecture Professional Practice  
3  
* Prerequisite(s): ARC 4210 with a grade of C- or higher and University Advanced Standing  
* Prerequisite(s) or Corequisite(s): ARC 4510, ARC 4230  
Examines the fundamentals of running and managing an architectural firm including project management, finances, working with consultants, stakeholder considerations, and ethical issues. Prepares for the Architectural Registration Exam (ARE).

ARC 459R  
Special Topics in Architecture  
3  
* Prerequisite(s): Matriculation to the B-Arch degree program and University Advanced Standing  
Provides exposure to emerging technologies, techniques of design and construction, and the craft of building lasting high quality structures. Varies each semester with a different topic. May be repeated for a maximum of 6 credits towards graduation.

ARC 4610  
Architecture Studio VIII  
7  
* Prerequisite(s): ARC 4510 with a grade of C- or higher and University Advanced Standing  
Applies design skills through an architectural work which integrates critical and abstract thinking. Researches building systems, life safety considerations, building envelope, financial, cultural and environmental balance, and construction documentation skills.

Art (ART)  

ART 1010  
Introduction to Visual Arts  
3  
Develops an appreciation of the visual arts by investigating the elements and principles of art, art criticism, art production, and the history of art. Includes written critiques and assignments. Requires students to identify works of arts and describe their significance in writing. May be delivered hybrid.

ART 1020  
Basic Drawing for Non-Majors  
3  
For non-majors. Introduces basic drawing techniques and stresses fundamentals of observation-based homework. Includes practice and skill building. Investigates basic black and white media such as graphite and charcoal. Requires sketchbook, in-class and home work assignments.

ART 1050  
Photography I  
3  
Emphasizes the use of camera operation, including aperture and shutter speed adjustments to control exposure, depth of field, lenses, and camera format. Teaches how to see photographically, using elements of composition and lighting to make stronger images.

ART 1110  
Drawing I  
3  
* Prerequisite(s): Major in Art and Design or Art Education  
For Art and Design and Art Education majors. Introduces fundamental drawing concepts and media. Emphasizes mastery of basic drawing principles and integration of these principles into a personal drawing style through exposure to a variety of structured drawing experiences.

ART 1120  
2D Design  
3  
* Prerequisite(s): Major in Art and Design or Entertainment Design or Art Education or Digital Media  
Introduces skills, techniques, and materials associated with two-dimensional design fundamentals. Researches a variety of media, techniques, and subjects, exploring perceptual and descriptive possibilities regarding design both as a developmental process as well as an artistic end. Provides experience in a range of traditional and non-traditional design media. Projects and critiques examine integration of both visual elements and principles of design according to contemporary standards. Canvas Course Mat $36/Cengage applies.

ART 1130  
3D Design  
3  
* Prerequisite(s): ART 1120  
Presents a survey of the history and main lines of development and influential factors in three dimensional design. Examines important designers, firms, and decisive turning points in the history of three dimensional design. Emphasizes planning, purpose, and function through project oriented assignments. Teaches proper use of tools and materials. Course fee of $45 for materials applies.

ART 1210  
Observational Drawing  
3  
Provides students with essential drawing skills necessary for the correct representation of space. Introduces multiple linear perspective drawing methods, visualization, tonal drawing, and rendering skills. Studies perspective and spatial representation in a historical context.

ART 1220  
Perspective Drawing  
3  
* Prerequisite(s) or Corequisite(s): ART 1210  
Studies essential perspective drawing skills necessary for the representation of 3-dimensional forms in space. Introduces multiple linear perspective drawing methods, visualization, and rendering skills. Studies perspective and planar representation in a historical context.

ART 1340  
Sculpture I  
3  
Introduces methods and techniques of figurative clay sculpture. Students will construct armatures and build clay head and anatomy studies from the model. Includes firing and finishing techniques. Course fee of $72 for materials applies.

ART 1350  
Ceramics I  
3  
Studies clay as an expressive medium. Emphasizes techniques of working with clay, including hand building, wheel throwing, glazing, and firing. Course fee of $30 for materials applies.

ART 1400  
Graphic Computer Applications  
3  
Introduces concepts and software related to visual communication and the creation and reproduction of art. Teaches how to create and modify digital images using Adobe Photoshop. Also teaches basic design skills using Adobe Illustrator. Teaches basic page layout skills using InDesign. Covers basic software used in visual communications. Lab access fee of $26 for computers applies.
ART 1410
Typography I
3
* Prerequisite(s): ART 1400. For DGM majors: DGM 1110, DWDD 1430.
* Prerequisite(s) or Corequisite(s): ART 1120

Teaches the principles of typographic design and communication, type selection, and type terminology. Addresses typographic history and the use of typography in contemporary design including its relationship to layout and grid structure. Teaches skills to allow students to professionally set type using industry standard software. Lab access fee of $26 for computers applies.

ART 1420
Graphic Design I
3
* Prerequisite(s): ART 1400. For DGM majors: DGM 1110 and DWDD 1430.
* Prerequisite(s) or Corequisite(s): ART 1120

Provides an understanding of basic principles needed for effective visual communication. Presents a survey of graphic design theory and practice. Introduces graphic design processes for creative problem solving, production and critique. Lab access fee of $26 for computers applies.

ART 1630
Introduction to Landscape Painting
3
Teaches landscape painting and drawing techniques through direct exposure to area sites. Explores interior and exterior landscapes. Studies color, shape, relationships, light, and space. Emphasizes individual interpretation of subject matter using a variety of media. Community members welcome.

ART 1650
Watercolor
3
Studies materials, techniques, and compositional methods of watercolor painting at a beginning level. Teaches the application of basic techniques for the use of transparent watercolor materials. Includes lecture/demonstration and studio time for application and evaluation. For majors and non-majors.

ART 1750
Intro to Digital Imaging
3
* Prerequisite(s): Major in Art and Design or Art Education

Emphasizes the use of camera operation, including lens, aperture, and shutter speed adjustments to control exposure and depth of field. Teaches how to see photographically, using elements of composition and lighting to make stronger images. Uses digital captures as the primary focus. Also covers how to light and photograph 2D and 3D artworks as well as create reference photos. Required DSLR or SLR cameras. Lab access fee of $26 applies.

ART 1790
Dark Room Techniques
3
* Prerequisite(s): ART 1750

Introduces photography majors to traditional dark room processes, including development and printing methods. Teaches imagery through negative manipulation, diffusion, toning, and multiple exposure. Course fee of $19 for equipment applies.

ART 1810
Introduction to Interior Design
3
For individuals wishing to develop interior design skills, be employed in the interior design industry, or develop their own interior design business. Overviews the interior design profession, client profiles and the design process. Covers principles and elements of design, evaluating design, color and lighting, fabric and pattern coordination. Studies American architecture and furniture styles, history and identification, and current design trends.

ART 1820
Interior Space Design
3
For individuals wishing to develop interior design skills, be employed in the interior design industry, or develop their own interior design business. Covers conceptualizing, designing, specifying and presenting residential interior client presentations. Includes business practices, building codes, portfolio preparation and advanced interior design concepts. Completers will have knowledge to be competent at mid-level interior design positions.

ART 1830
Residential Interior Design
3
For individuals wishing to develop interior design skills, be employed in the interior design industry, or develop their own interior design business. Covers conceptualizing, designing, specifying and presenting residential interior client presentations. Includes business practices, building codes, portfolio preparation and advanced interior design concepts. Completers will have knowledge to be competent at mid-level interior design positions.

ART 200R
Art and Design Lecture Series
1
* Prerequisite(s): Declared Art and Design major

Offers weekly lectures exploring art and design. Addresses art education, art history, ceramics, drawing, graphic design, illustration, painting, photography, and sculpture. May be repeated for a maximum of 4 credits toward graduation. Course fee of $50 for support applies.
ART 2240
Illustrative Media and Techniques II
3
* Prerequisite(s): ART 1120, ART 1210, ART 1220
Introduces the study, practice and application of aqueous painting media used in the production of illustration art. Focuses on acrylic, gouache, casein or watercolor painting techniques. In addition, develops mixed media processes and techniques in combination with aqueous painting media.

ART 2250
Gestural Drawing
3
* Prerequisite(s): ART 1210 ART 1220
Introduces the drawing of basic shapes and forms used to create solidly-constructed, animated characters. Emphasizes understanding and communicating movement of the human form as shapes and drawing imaginatively. Course fee of $100 applies for support.

ART 2260
Digital Painting I
3
* Prerequisite(s): ART 1120, ART 1210, ART 1220, ART 1400
Introduces the digital illustrator/painter to the application of various animation software programs such as basic raster, vector, and 3D. Software fee of $12 applies. Lab access fee of $26 for computers applies.

ART 2270
Figure Drawing I
3
* Prerequisite(s): ART 1210, ART 1220
Studies the anatomy of the human figure: dynamics, posing and motion. Emphasizes figure-drawing skills such as extreme foreshortening, perspective and drawing the gestural motion of the human form. Uses live models (dressed and/or undraped). Course Lab fee of $120 applies for support.

ART 2280
3D Modeling
3
* Prerequisite(s): ART 1110 or 1210, ART 1120, ART 1400
Teaches basic techniques of computer software 3D modeling, focusing primarily on Polygon and Subdivision Surface workflows. Includes basic lighting, surfacing, and rendering techniques. Software fee of $12 applies Lab access fee of $26 for computers applies.

ART 2340
Sculuture II
3
* Prerequisite(s): ART 1340 or Department Approval
Teaches intermediate techniques of clay sculpture, including armature construction, base relief, figurative sculpture based on human and animal forms. Develops the skills to create a sculpture from clay model to finished piece. Course fee of $40 for materials applies.

ART 2350
Ceramics II
3
* Prerequisite(s): ART 1350 or Department Approval
Teaches intermediate and advanced techniques of wheel throwing, hand-building, and glazing. Emphasizes clay as an artistic medium. Includes decoration of clay shapes with engobes, slip, glaze, overglazes, etc. Develops the skills to create a quality finished ceramic piece. Requires students to provide all materials and equipment except wheels. Course fee of $40 for materials applies.

ART 2400
Production Design
3
* Prerequisite(s): ART 1110, ART 1120, ART 1400, ART 1410, ART 1420, formal acceptance to Associate of Applied Science in Graphic Design (AAS) Program by portfolio review, or department approval.
Introduces production techniques used in the graphic design industry. Includes the practical application of learned technical skills through design projects. Software fee of $12 applies. Lab access fee of $26 for computers applies.

ART 2430
Branding I
3
* Prerequisite(s): ART 1110, ART 1120, ART 1400, ART 1410, ART 1420, formal acceptance to Associate of Applied Science in Graphic Design (AAS) Program by portfolio review, or department approval.
Addresses concepts relating to branding campaigns. Teaches research skills and the influence they have on the creation of brand identities. Teaches brainstorming, conceptual skills, and the use of industry-standard software for the design and production of an identity system. Software fee of $12 applies. Lab access fee of $26 for computers applies.

ART 2440
Motion Graphics I
3
* Prerequisite(s): ART 1110 or ART 1210, ART 1120, ART 1400, declared Entertainment Design (AAS), or formal acceptance to Associate of Applied Science in Graphic Design (AAS) Program by portfolio review, or department approval.
Teaches basic principles and techniques of 2D animation with an emphasis on typography. Includes discussion of creative problem solving in time-based media. Includes learning 2D industry software to render video and audio. Software fee of $12 applies. Lab access fee of $26 for computers applies.

ART 2630
Painting I
3
* Prerequisite(s): ART 1120
Investigates the character and techniques of oil painting at a beginning level. Emphasizes traditional oil painting techniques. Encourages development of individual style and approach to the media.
ART 2680
Printmaking I
3
* Prerequisite(s): ART 1110 or ART 1020
Introduces fine art printmaking and focuses on beginning techniques, processes, and materials. Explores the role of traditional and contemporary printmaking as a fine art medium. Focuses on the development of personal and individual imagery, craftsmanship, the use of tools and materials, and printmaking terminology. Includes intaglio printing and relief printing. Course Lab fee of $32 applies.

ART 2700
Photography II
3
* Prerequisite(s): ART 1790
Extends skills and principles learned in Introduction to Photography. Continues the exploration of light and composition through personal expression to make stronger images. Emphasizes technical control of exposure, development, and aesthetic presentation in the context of the Zone System. Teaches processes of archival printing and presentation. Emphasizes use of large format cameras. Course fee of $19 for equipment applies.

ART 2710
Documentary Photography
3
* Prerequisite(s): ART 1750
Teaches the art of telling stories through lens based media. Studies how to take a story from concept to publication. Explores methods of publication of imagery in magazines, newspapers, web sites, social media, annual reports, etc. Uses historical documentary references to inform contemporary ways of telling a story. Includes the use of still and moving imagery. Course Lab fee of $19 for equipment applies.

ART 2720
Color Photography
3
* Prerequisite(s): ART 1750
Introduces color photography and color theory using digital photography and Adobe Photoshop as well as inkjet printing and scanning. Explores cross processing and other development manipulations. Discusses development of color photography and color perception as applied to specific themes. Encourages creativity and personal expression. Software fee of $12 applies. Lab access fee of $26 for computers applies.

ART 2730
Photographic Lighting I
3
* Prerequisite(s) or Corequisite(s): ART 2720
Teaches the basic skills needed to control and manipulate light as a tool for the photographer in communication of artistic vision. Explores different lighting sources and investigates the effects of direction, quality and quantity. Emphasizes flash photography, tungsten, and natural lighting. Studies photographic studio, location, and mixed lighting techniques. Covers processes and concepts through slide presentations, readings, critiques and class discussions. Course Lab fee of $19 for equipment applies.

ART 2815
Historical Architecture and Interior Design
FF Historical Architecture and Interior Design FF
3
Studies interior design and its development and change through historical styles from prehistoric civilizations through the Victorian Era. Identifies major historical period styles, major architects, and designers. Covers furniture, lighting, and surface materials.

ART 281R
Art and Design Internship
1 to 6
* Prerequisite(s): Departmental Approval
Combines classroom theory with related, practical job experience. Provides students work experience as employees of a business, agency, or institution while enrolled in classes related to their career/major. Allows for individualized course content with students setting objectives in concert with their internship advisor and their workplace supervisor. Requires pre-approval by the area coordinator and department internship advisor. Offers variable credit determined by the number of hours worked per week. May be repeated for a maximum of 6 credits towards graduation. May be graded credit/no credit.

ART 2825
Modern Architecture Interiors and Furnishings
3
* Prerequisite(s): ART 1810
Studies interior design and its development through historical styles from the Arts and Crafts movement to Deconstructivism. Covers architects, designers, textiles, lighting and surface materials.

ART 291R
Independent Study
1 to 3
* Prerequisite(s): Sophomore and above students only
Provides an opportunity for second year and above students to do individual research and experimentation within the areas of the Art and Design Program. Limited to advanced work beyond that which can be completed in existing available classes. Requires that a proposal be submitted and approved by the department prior to enrollment. May be repeated for a maximum of three credits toward graduation.

ART 3005
Ceramic History Trends and Practices WE
3
* Prerequisite(s): ART 1350, ART 2350, and University Advanced Standing; or department approval
Investigates important movements, approaches, cultures, and techniques in the history of ceramic production. Studies artists, trends, and issues in contemporary ceramics.

ART 300R
Special Topics in Art
1 to 3
* Prerequisite(s): University Advanced Standing; formal acceptance to the Art and Design Bachelor of Arts (BA), Bachelor of Science (BS), or Bachelor of Fine Arts (BFA) degree, and department approval
Addresses emerging topics, issues, and developments related to the visual arts. Includes lectures, demonstrations, and studio time for application and evaluation. Encourages development of personal style in relation to the topic. May be repeated for a maximum of 9 credits toward graduation.

ART 311R
Drawing III
3
* Prerequisite(s): ART 2110 and University Advanced Standing; or department approval
Continues the exploration of the technical skills and conceptual development of drawing as a creative medium. Focuses on the mastery of drawing skills and includes demonstrations, lectures and active participation in the critical process. Emphasizes cultivating personal expression and independent serial work. May be repeated for a maximum of 6 credits toward graduation.
ART 3210
Narrative Illustration
3
* Prerequisite(s): ART 2230 or ART 2240, ART 2260, ART 2270, matriculation into the BFA in Art and Design Illustration emphasis or the BFA in Entertainment Design, or department approval, and University Advanced Standing.

Provides experiences in creating mood through visual elements and controlling the pictorial space. Emphasizes composition, creativity and technical ability. Addresses narrative illustration and visual storytelling. Course fee of $20 for support applies.

ART 3220
Conceptual Illustration
3
* Prerequisite(s): (Matriculated into the BFA in Arts and Visual Communication: Illustration emphasis) and University Advanced Standing
* Prerequisite(s) or Corequisite(s): ART 2270

Introduces conceptual illustration and problem solving through the use of visual symbols, metaphors and icons. Course fee of $20 for support applies.

ART 322R
Advanced Rendering of Forms and Surfaces
3
* Prerequisite(s): ART 2240 and University Advanced Standing; formal acceptance to the Art and Design Bachelor of Arts (BA), Bachelor of Science (BS), or Bachelor of Fine Arts (BFA) degree, or department approval

Studies the accurate depiction of light, shadow, and reflectivity. Focuses on realistic rendering of various objects, textures, and surfaces. Develops advanced skills with a variety of media that may include traditional and/or digital drawing and painting media. May be repeated for a maximum of 6 credits toward graduation.

ART 3240
Head Drawing
3
* Prerequisite(s): ART 2270, matriculation into the BFA in Art and Design Illustration emphasis or the BFA in Entertainment Design, or department approval, and University Advanced Standing.

Develops proficiency in rendering the human head in a variety of approaches and techniques. Addresses geometric and planar construction, proportion, lighting, features, and expression. Course Lab fee of $93 for support applies.

ART 324R
Childrens Book Illustration
3
* Prerequisite(s): (Matriculated into the BFA in Art and Design: Illustration emphasis) and University Advanced Standing
* Prerequisite(s) or Corequisite(s): ART 2230 or ART 2240

Teaches the processes and techniques used in the execution of children's book illustrations. Emphasizes stylizing, simplifying, exaggerating forms, and organizing pictorial space. Focuses on the art of narrative storytelling and continues the study of media and techniques relative to storybook illustration. May be repeated for a maximum of 6 credits toward graduation.

ART 3250
Environment Design
3
* Prerequisite(s): ART 2240, ART 2260, matriculation into the BFA in Art and Design Illustration emphasis or the BFA in Entertainment Design, or department approval, and University Advanced Standing.

Develops and improves skills in designing, rendering, and painting environments and landscapes for use in illustration, animation, video games, and film.

ART 325R
2D Animation for Illustration
3
* Prerequisite(s): (ART 1110 and ART 1400) or (DAGV 1300 and DAGV 130L), and University Advanced Standing; formal acceptance to the Art and Design Bachelor of Arts (BA), Bachelor of Science (BS), or Bachelor of Fine Arts (BFA) degree, or department approval

Provides the student of illustration a firm foundation to create simple to moderately complex 2D animations. Develops skills using animation basics including tweening, squash and stretch, anticipation, staging and timing. May be repeated for a maximum of 6 credits toward graduation. Software fee of $12 applies. Lab access fee of $26 for computers applies.

ART 3260
Digital Painting II
3
* Prerequisite(s): ART 2260, matriculation into the BFA in Art and Design Illustration emphasis or the BFA in Entertainment Design, or department approval, and University Advanced Standing.

Focuses on creating quality digital paintings/illustrations in a studio setting. Studies the more subtle features of the software applications. Practices advanced conceptual and problem solving skills. Software fee of $12 applies. Lab access fee of $26 for computers applies.

ART 3270
Digital Illustration
3
* Prerequisite(s): ART 1110, ART 1400, ART 2260 and University Advanced Standing; formal acceptance to the Art and Design Bachelor of Arts (BA), Bachelor of Science (BS), or Bachelor of Fine Arts (BFA) degree, or department approval

Develops advanced skills in producing pixel-based, computer-generated artwork for use as illustrations and other graphic communications. Emphasizes digitally painted images created from scratch rather than the creation of images produced through the digital manipulation of existing, found, or photographic resources. Develops conceptually based and communicative images that will be a vital aspect of each course project. Employs industry-standard software, and techniques including layers, compositing, channels, selection masks and color adjustments. Software fee of $12 applies. Lab access fee of $26 for computers applies.

ART 3280
3D Texturing and Rendering
3
* Prerequisite(s): ART 2260, ART 2280, and University Advanced Standing; formal acceptance to the BFA in Art and Design: Illustration emphasis or the BFA in Entertainment Design, or department approval.

Teaches techniques in texturing, lighting, and rendering of 3D models and scenes with a special emphasis upon aesthetics and composition. Includes texture painting, UV mapping, and HDRI lighting in addition to the standard techniques. Software fee of $12 applies. Lab access fee of $26 applies for computers.

ART 328R
Painting the Human Head
3
* Prerequisite(s): ART 3240 and University Advanced Standing; formal acceptance to the Art and Design Bachelor of Arts (BA), Bachelor of Science (BS), or Bachelor of Fine Arts (BFA) degree, or department approval

Continues the development of rendering skills acquired in ART 3240 (Head Drawing). Emphasizes mixing flesh tones, managing values, and investigates a variety of approaches to painting the human head. May be repeated for a maximum of 6 credits toward graduation. Course Lab fee of $93 for computers applies.
Course Descriptions

**ART 334R**
Sculpture III
3
* Prerequisite(s): ART 2340 and University Advanced Standing; or department approval

Investigates studio problems based on concepts applied to various three-dimensional materials. Places special emphasis on the development of individual expression in the students chosen medium. Encourages the development of individual style and exploration of alternative media. May be repeated for a maximum of 6 credits toward graduation. Course fee of $27 for materials applies.

**ART 335R**
Ceramics III
3
* Prerequisite(s): ART 2350 and University Advanced Standing; or department approval

Continuation of concepts developed in Ceramics I and II. Addresses advanced skills in hand building, wheel throwing, glaze formulation and kiln firing. May be repeated for a maximum of 6 credits toward graduation. Course fee of $40 for materials applies.

**ART 3420**
Typography II
3
* Prerequisite(s): ART 2400, ART 2430, University Advanced Standing; or department approval

Develops advanced skills in the use of typography and layout. Examines editorial practices and executes designs that are appropriate for the intended audience. Teaches concept and theory behind brand identity and package design. Covers how to conduct research to ensure designs are conceptually appropriate and targeted. Includes creation of collateral that supports campaign criteria. Software fee of $12 applies. Lab access fee of $26 for computers applies.

**ART 3450**
Branding II
3
* Prerequisite(s): ART 2400, ART 2430, University Advanced Standing; formal acceptance to Bachelor of Fine Arts (BFA) Program by portfolio review, or department approval.

Teaches concept and theory behind brand identity and package design. Covers how to conduct research to ensure designs are conceptually appropriate and targeted. Includes creation of collateral that supports campaign criteria. Software fee of $12 applies. Lab access fee of $26 for computers applies.

**ART 3480**
UI/UX Design II
3
* Prerequisite(s): DWDD 1600, University Advanced Standing; formal acceptance to Bachelor of Fine Arts (BFA) Program by portfolio review, or department approval.

Teaches advanced principles and techniques to develop interactive experiences. Includes discussion of usability and user-centered design to solve client needs. Includes learning user interface (UI) and user experience (UX) design principles. Software fee of $12 applies. Lab access fee of $26 for computers applies.

**ART 3500**
Secondary Art Education Methods I WE
3
* Prerequisite(s): ART 1110, ART 1120, University Advanced Standing, and Matriculation into Art Education or department approval.

Introduces students to the materials, methods, and resources related to teaching middle school and high school visual arts. Emphasizes the characteristics and components of a quality art program. Designed for the art education major pursuing teacher licensure for grades 7-12. Course Lab fee of $16 for materials applies.

**ART 3510**
Secondary Art Education Methods II WE
3
* Prerequisite(s): University Advanced Standing.

Investigates theories and models of curriculum development in the visual arts for middle school and high school students. Includes implementation of curriculum development, unit/lesson planning, and evaluation strategies in the visual arts. Prepares prospective art teachers to plan, organize, and promote quality art programs and curricula. Course Lab fee of $22 for materials applies.

**ART 3515**
Branding I
3
* Prerequisite(s): ART 2270 and University Advanced Standing; or department approval

Introduces theoretical issues in contemporary painting and their application to personal approaches to painting. Emphasizes individual problem solving and independent growth within a conceptual setting. May be repeated for a maximum of 6 credits toward graduation.

**ART 361R**
Figure Drawing II
3
* Prerequisite(s): ART 2270 and University Advanced Standing; or department approval

Introduces theoretical issues in contemporary painting and their application to personal approaches to painting. Emphasizes individual problem solving and independent growth within a conceptual setting. May be repeated for a maximum of 6 credits toward graduation.

**ART 362R**
Life Drawing
3
* Prerequisite(s): ART 1110, ART 1120, University Advanced Standing

Studies fundamental human anatomy, structure, value representation, proportion, shape, and gesture from a fine arts vantage point in a range of drawing media. Draws from observation of live models (dressed and undressed). Serves as a foundation for advanced courses in drawing and painting the human form as found in traditional, modern, and contemporary fine arts movements. May be repeated for a maximum of 6 credits toward graduation. Course Lab fee of $135 applies.
ART 367R
Printmaking II
3
* Prerequisite(s): (ART 1110 or ART 1020), ART 2680, University Advanced Standing, or department approval
Continues to develop, enhance, and create proficiency in printmaking skills through intermediate techniques, processes, and materials. Establishes the role of traditional and contemporary printmaking as a fine art medium. Includes challenging and complex projects with more advanced technical skills than Printmaking I. Strengthens the development of personal and individual imagery, including the importance of craftsmanship, the usage of additional tools/materials, and an expanding printmaking vocabulary. May be repeated for a maximum of 6 credits toward graduation. Course Lab fee of $34 for materials applies.

ART 368R
Printmaking III
3
* Prerequisite(s): (ART 1110 or ART 1020), ART 2680, University Advanced Standing, or departmental approval
Continues the exploration of fine art printmaking through advanced techniques, processes, and materials including the mixing/printing of color inks and multiple plate registration. Strengthens the development of personal and individual imagery, including the importance of craftsmanship, the usage of new tools/materials, and an expanding printmaking vocabulary. May be repeated for a maximum of 6 credits toward graduation. Course Lab fee of $34 for materials, equipment applies.

ART 369R
Contemporary Figure Painting
3
* Prerequisite(s): (ART 366R or ART 2270), ART 2630, and University Advanced Standing; or department approval. ART 2620 recommended.
Studies the human form from a fine arts vantage point at an advanced level in various painting media (oil, acrylic, mixed, etc.). Explores historical and contemporary modes of media/image use and interpretation in conceiving and expressing the human form in a range of stylistic contexts. Painting is done from observation of live models (draped and undraped). Course Lab fee of $135 applies.

ART 371R
Historical Photographic Processes
3
* Prerequisite(s): University Advanced Standing; formal acceptance to Bachelor of Fine Arts (BFA) Program by portfolio review, or department approval
Teaches alternative photographic processes with an emphasis on early photographic printing techniques. Includes preparation and exposure of paper using various alternative techniques through a variety of hands-on projects. May be repeated for a maximum of 6 credits toward graduation. Course Lab fee of $50 for equipment applies.

ART 3730
Photographic Lighting II
3
* Prerequisite(s): University Advanced Standing; formal acceptance to Bachelor of Fine Arts (BFA) Program by portfolio review, or department approval
Focuses on product lighting and camera techniques. Develops artistic skill through the creation of images that can be used in commercial settings, specifically in advertising. Course Lab fee of $19 for equipment applies.

ART 3740
Fine Art Photography WE
3
* Prerequisite(s): ART 1750 and University Advanced Standing; formal acceptance to the Art and Design Bachelor of Arts (BA), Bachelor of Science (BS), or Bachelor of Fine Arts (BFA) degree, or department approval
Integrates previously taught image-making skills, and encourages students to further develop their personal vision through a more developed project. Examines contemporary trends, styles, and critical issues through slide presentations, readings, critiques, critical writing and class discussions. Course Lab fee of $19 for equipment applies.

ART 3750
Advanced Digital Imaging
3
* Prerequisite(s): ART 2720 and University Advanced Standing; formal acceptance to the Art and Design Bachelor of Arts (BA), Bachelor of Science (BS), or Bachelor of Fine Arts (BFA) degree, or department approval
Integrates Photoshop as a development and manipulation tool for image making. Investigates technical concerns of digital workflow, capture, and output for commercial and fine art applications. Strong emphasis on using Photoshop as a creative tool in personal artistic expression. Discusses more advanced uses of selection tools, color correction, layer and channel manipulations. Teaches processes and concepts through slide presentations, readings, critiques and class discussions. Software fee of $12 applies. Lab access fee of $26 for computers applies.

ART 3800
Low-Fire Ceramics
3
* Prerequisite(s): ART 1350, ART 2350, and University Advanced Standing; or department approval
Explores low-temperature clay and glazing techniques, as well as the practical and aesthetic considerations of their use. Addresses the operation and maintenance of electric kilns.

ART 3810
Ceramic Technologies
3
* Prerequisite(s): ART 1350, ART 2350, and University Advanced Standing; or department approval
Teaches proper practices in the ceramic studio. Includes kiln operation, maintenance and design, basic clay and glaze formulation, understanding ceramic materials, ceramic tool making, and studio practices and safety.

ART 382R
Sculpting the Human Form
3
* Prerequisite(s): ([ART 1110 or ART 1020), ART 1130, ART 1340) and University Advanced Standing
Teaches sculpting principles and techniques related to the human form. Explores skeletal and muscular anatomy studies through the creation of an écorché sculpture. Sculpting will be done from live models (clothed and unclothed) to improve observation and rendering skills. Emphasizes armature design and creation. May be repeated for a maximum of 6 credits toward graduation. Course lab fee of $72 for illustration applies.

ART 411R
Drawing IV
3
* Prerequisite(s): (ART 311R or department approval) and University Advanced Standing
Emphasizes individual exploration in a variety of drawing media. Variably engages "process" as a creative methodology. Continues with conceptual development of drawing as a creative medium. Encourages active participation in the critical process and refinement of a personal approach to the medium. May be repeated for a maximum of 6 credits toward graduation.

ART 421R
Advanced Illustration
3
* Prerequisite(s): (Matriculated into the BFA in Art and Design: Illustration emphasis program) and University Advanced Standing
* Prerequisite(s) or Corequisite(s): ART 3220
Provides advanced studies in producing a senior level portfolio. Encourages students to find a personal style and voice in communicating images. Requires advanced problem solving skills and advanced abilities in the creation of images. May be repeated for a maximum of 6 credits toward graduation. Course fee of $50 for support applies.
ART 4250
Character Design
3
* Prerequisite(s): ART 3240, ART 361R, and University Advanced Standing; formal acceptance to the BFA in Art and Design: Illustration emphasis or the BFA in Entertainment Design, or department approval.
Teaches how to create original and compelling character designs for use in film, video games, graphic novels, and children's books. Software fee of $12 applies. Lab access fee of $26 for computers applies.

ART 4260
Concept Design
3
* Prerequisite(s): ART 3250, and University Advanced Standing; formal acceptance to the BFA in Art and Design: Illustration emphasis or the BFA in Entertainment Design, or department approval
* Prerequisite(s) or Corequisite(s): ART 4250
Teaches how to create original and compelling concept designs and environments for use in film, video games, graphic novels, and children's books.

ART 4270
Sequential Illustration
3
* Prerequisite(s): ART 3210, ART 3260, and University Advanced Standing; formal acceptance to the BFA in Art and Design: Illustration emphasis or the BFA in Entertainment Design, or department approval.
Studies the practice and execution of drawings and lettering in pencil, ink or digital mediums to create visual narratives in sequence, commonly referred to in popular culture as comics or graphic novels. Software fee of $12 applies. Lab access fee of $26 for computers applies.

ART 4280
3D Rigging and Animation
3
* Prerequisite(s): ART 3280, ART 3440, ART 361R, and University Advanced Standing; formal acceptance to the BFA in Art and Design: Illustration emphasis or the BFA in Entertainment Design, or department approval
* Prerequisite(s) or Corequisite(s): ART 4250
Teaches the process of rigging for 3D motion and posing of characters and objects for animated films and games. Studies principles of character animation and motion capture.

ART 4290
3D Sculpting
3
* Prerequisite(s): ART 3240, ART 3280, ART 361R, and University Advanced Standing; formal acceptance to the BFA in Art and Design: Illustration emphasis or the BFA in Entertainment Design, or department approval
* Prerequisite(s) or Corequisite(s): ART 4250
Teaches 3D digital sculpting techniques needed to create finished 3D illustrations and/or 3D assets to be used as reference for 2D illustration. Studies model detailing, texture mapping, lighting, and rendering of 3D computer reference or as standalone 3D illustration. Software fee of $12 applies. Lab access fee of $26 applies for computers.

ART 4360
Mold Making and Casting
3
* Prerequisite(s): ART 1120, ART 1130, ART 2340, and University Advanced Standing; or department approval
Covers the basic process of casting and the construction of molds. Emphasizes the use of molds in the development of sculptural ideas. Course lab fee of $70 for materials applies.

ART 4370
Hand Building Ceramics
3
* Prerequisite(s): ART 1350 and University Advanced Standing; or department approval
Designed for students interested in three-dimensional art forms. Emphasizes hand building design and techniques in creating both sculptural and vessel projects in water-based clay. Teaches advanced methods of coil, slab, and pinch construction. Utilizes slump molding, rolled slab, cylinders, and molds in creation of finished clay products. Course fee of $30 for materials applies.

ART 443R
Design Studio
3
* Prerequisite(s): ART 3420, ART 3450, and University Advanced Standing; formal acceptance to Bachelor of Fine Arts (BFA) Program by portfolio review, or department approval
Addresses emerging topics, issues, and technology relevant to graphic design. Addresses these issues through research and collaborative project development. May be repeated for a maximum of 6 credits toward graduation. Software fee of $12 applies. Lab access fee of $26 applies for computers.

ART 4440
Motion Graphics Studio
3
* Prerequisite(s): ART 3440, and University Advanced Standing; formal acceptance to the BFA in Art and Design: graphic design emphasis or the BFA in Entertainment Design, or department approval
Addresses emerging topics, issues, and technology relevant to motion design. Addresses these issues through research and collaborative project development. Software fee of $12 applies. Lab access fee of $26 for computers applies.

ART 4480
UI/UX Studio
3
* Prerequisite(s): ART 3480, and University Advanced Standing; formal acceptance to Bachelor of Fine Arts (BFA) Program by portfolio review, or department approval
Addresses emerging topics, issues and technology relevant to UI/UX design. Addresses these issues through research and collaborative project development. Software fee of $12 applies. Lab access fee of $26 for computers applies.

ART 4490
Portfolio II
3
* Prerequisite(s): ART 341R, ART 343R, and University Advanced Standing; formal acceptance to Bachelor of Fine Arts (BFA) Program by portfolio review, or department approval
Presents advanced instruction in the execution of a variety of graphic design projects (advertising, collateral, editorial, package and web design) aimed at building an exit portfolio. Assists students to improve and refine their portfolios in preparation for employment. Provides students the skills to develop a brand identity for themselves to further enhance their employability. Software fee of $20 applies. Lab access fee of $25 applies for computers.

ART 463R
Painting IV
3
* Prerequisite(s): ART 363R and University Advanced Standing; or department approval
Emphasizes independent and creative development as a painter. Provides an opportunity for students to solidify and expand their ideas while working within a class context. May be repeated for a maximum of 6 credits toward graduation.
### Course Descriptions

#### ART 466R
**Advanced Life Drawing**
- 3 credits
  - Prerequisite(s): (ART 366R or ART 2270), and University Advanced Standing; or department approval

Studies fundamental human anatomy, structure, value representation, shape and gesture from a fine arts vantage point at an advanced level. Explores historical and contemporary modes of media/image use and application in conceiving and expressing the human form in a range of stylistic contexts. Includes observational drawing of live models (clothed and unclothed). Serves as a platform for advanced development in drawing the human form in a range of drawing media as found in traditional, modern and contemporary fine arts movements. May be repeated for a maximum of 6 credits toward graduation. Course Lab fee of $150 for Illustration applies.

#### ART 468R
**Printmaking IV**
- 3 credits
  - Prerequisite(s): (ART 1110 or ART 1020), ART 2680, University Advanced Standing, or department approval

Expands the exploration of fine art printmaking through advanced techniques, processes, and materials. Continues to view the role of traditional and contemporary printmaking as a fine art medium. Includes more challenging and complex projects with more advanced technical skills than in Printmaking I, II, & III. Encourages the ability to detect and diagnose printing errors and to collaborate with peers in the making and critiquing of artworks. Strengthens the development of personal and individual imagery, including the importance of craftsmanship, the usage of new tools/materials, and an expanding printmaking vocabulary. May be repeated for a maximum of 6 credits toward graduation. Course Lab fee of $34 for materials applies.

#### ART 470R
**Figure Drawing III**
- 3 credits
  - Prerequisite(s): (ART 361R, Art and Visual Communication BFA Students, or Instructor approval) and University Advanced Standing

Offers a senior-level drawing experience, emphasizing drawing from imagination. Continues skill development in proper character structure and scene layout. May be repeated for a maximum of 6 credits toward graduation. Course Lab fee of $125 for support applies.

#### ART 471R
**Photographic Illustration**
- 3 credits
  - Prerequisite(s): University Advanced Standing; formal acceptance to Bachelor of Fine Arts (BFA) Program by portfolio review, or department approval

Develops skills in illustrating concepts through photographic processes. Encourages students to work through assignments from their own personal emphasis of commercial or fine art image making styles. Explores contemporary trends, styles, and critical issues through slide presentations, readings, critiques and class discussions. Focuses on the development of interpretation and conceptual image making. May be repeated for a maximum of 6 credits toward graduation. Course Lab fee of $19 for equipment applies.

#### ART 474R
**Advanced Photo Studies**
- 3 credits
  - Prerequisite(s): University Advanced Standing; formal acceptance to Bachelor of Fine Arts (BFA) Program by portfolio review, or department approval

Integrates all previous image making skills acquired into the students’ visual vocabulary. Encourages students to further develop their own personal vision through more developed projects. Examines contemporary trends, styles, and critical issues through slide presentations, readings, critiques and class discussions. Investigates needed skills in running a business as a commercial and Fine Art photographer. Emphasizes conceptual image making. May be repeated for a maximum of 6 credits toward graduation. Course Lab fee of $19 for equipment applies.

#### ART 4750
**Exploratory Photographic Processes**
- 3 credits
  - Prerequisite(s): University Advanced Standing; formal acceptance to Bachelor of Fine Arts (BFA) Program by portfolio review, or department approval

Explores deconstruction of the image in both a formal and conceptual process. Analyzes liquid emulsions, mixed media, encaustic, and alternative surfaces and materials. Examines the possibilities of the image beyond two-dimensional traditional photography. Course Lab fee of $19 for equipment applies.

#### ART 481R
**Art and Design Internship**
- 1 to 6 credits
  - Prerequisite(s): University Advanced Standing; formal acceptance to the Art and Design Bachelor of Arts (BA), Bachelor of Science (BS), or Bachelor of Fine Arts (BFA) degree and departmental approval

Combines classroom theory with related, practical job experience. Students works as employees of a business, agency, or institution while enrolled in classes related to their career/major. Course content is individualized with students setting objectives in concert with their internship advisor and their workplace supervisor. Internship enrollment must be pre-approved by the area coordinator and department internship advisor. Number of hours worked per week will determine number of credits granted. May apply a maximum of 6 credits toward graduation. May be graded credit/no credit.

#### ART 4820
**Professional Practices for the Visual Arts I**
- WE 1 credit
  - Prerequisite(s): University Advanced Standing; declared Art & Design major; junior or senior status or department approval

For Art and Design majors. Covers business topics related to visual arts professions, including standard policies and procedures, basic contracts and pricing methods, trade customs, ethical standards, and general business practices.

#### ART 4830
**Professional Practices for the Visual Arts II**
- WE 1 credit
  - Prerequisite(s): University Advanced Standing; declared Art & Design major; junior or senior status or department approval

For Art and Design majors. Introduces students to legal topics relevant to professions in the visual arts, including the principles of copyright, trademark, and contract law, as well as policies and laws that impact the production of creative work.

#### ART 4840
**Professional Presentation for the Visual Arts**
- WE 1 credit
  - Prerequisite(s): University Advanced Standing; declared Art & Design major; junior or senior status or department approval

For Art and Design majors. Covers topics related to preparing work for presentation and marketing work within visual arts professions, including building a professional website, preparing a professional portfolio, getting work ready for exhibition, and advertising/marketing work.
Course Descriptions

**ART 4850**
Professional Writing for the Visual Arts WE

1

* Prerequisite(s): University Advanced Standing; declared Art & Design major; junior or senior status or department approval

For Art and Design majors. Focuses on the development of advanced writing skills for visual arts professionals, including writing artists' statements, biographies, critiques, critical reviews, exhibition labels, and content for social media platforms. Also focuses on understanding and tailoring communication for specific audiences.

**ART 4890**
Senior Seminar
3

* Prerequisite(s): University Advanced Standing; Senior status and formal acceptance to the Art and Design Bachelor of Arts (BA), Bachelor of Science (BS), or Bachelor of Fine Arts (BFA) degree, or department approval

For Art and Design majors. Covers standard policies and procedures used in the creation and marketing of visual arts. Includes estimating, pricing, trade customs, ethical standards, contracts, and other legal rights and issues. Explores job opportunities and self-employment options for visual artists.

**ART 491R**
Independent Study
1 to 3

* Prerequisite(s): University Advanced Standing, formal acceptance to the Art and Design Bachelor of Arts (BA), Bachelor of Science (BS), or Bachelor of Fine Arts (BFA) degree, and department approval

Provides an opportunity for upper-division students to do individual research and experimentation within the areas of the Art and Design Program. Study is limited to advanced work beyond that which can be completed in existing available classes. A proposal must be submitted and approved by the department prior to enrollment. May be repeated for a maximum of 3 credits toward graduation.

**ART 4990**
Senior Studio
3

* Prerequisite(s): University Advanced Standing, Senior status, and formal acceptance to the Art and Design Bachelor of Arts (BA) or Bachelor of Science (BS), and department approval

For Art and Design majors with senior status. Combines and integrates concepts, methodologies, and skills developed in previous Art and Design course work, through the completion of a comprehensive project. Requires students to develop their own project/portfolio in consultation with a faculty advisor. Finished projects will demonstrate individual student skills and interests.

**ART 499R**
BFA Project WE
3

* Prerequisite(s): University Advanced Standing; Senior status and formal acceptance to Bachelor of Fine Arts (BFA) program by portfolio review or department approval

Focuses on the development and execution of a gallery exhibition or professional portfolio. Includes collaborative work with a gallery/museum professional in preparation of the exhibition's public viewing. May be repeated for a maximum of 6 credits toward graduation. Software fee of $12 applies. Lab access fee of $26 for computers applies.

**ARTH 2710**
Prehistoric Through Gothic Art History
3

* Prerequisite(s): ARTH 2720 (ARTH 2710 recommended), ENGL 1010 or ENGH 1005

Explores topics within art and architectural history. Topics will change each semester to reflect the research activities and interests of the instructor (e.g., "The History of Victorian Art & Design", "The History of Rococo Painting & Sculpture"). May be repeated for a maximum of 6 credits toward graduation.

**ARTH 3010**
History of Design and Visual Arts
3

* Prerequisite(s): ARTH 2710 or ARTH 2720 and University Advanced Standing

Focuses on historical methodologies. Studies the art and architecture of ancient Egypt and the Near East and various cultures of the Mesopotamian region. Explores the broader cultural, historical, and religious events and developments of the cultures and periods covered. Includes lectures and class discussions.

**ARTH 3015**
Classical Art and Architecture History
3

* Prerequisite(s): ARTH 2710, (ENGL 1010 or ENGH 1005), (Art and Design Sophomore status or departmental approval), and University Advanced Standing

Studies the art and architecture of Ancient Greece, Etruria, and Rome. Explores the influences on classical culture as well as the influences of Greco-Roman culture over the centuries. Includes lectures and class discussion about classical art within its broad cultural framework.
ARTH 3030
Medieval Art and Architecture History 3
* Prerequisite(s): ARTH 2710 (ARTH 2720 recommended), ENGL 1010 or ENGH 1005, and University Advanced Standing
Studies major styles, cultural influences, and developments in the arts of the middle ages. After an introduction to the aftermath of the fall of Rome and the rise of Christianity, the Romanesque and Gothic periods are investigated in detail. Includes lecture and class discussions.

ARTH 3040
Renaissance Art History 3
* Prerequisite(s): ARTH 2710 (ARTH 2720 recommended), ENGL 1010 or ENGH 1005, and University Advanced Standing
Studies art and architecture in Italy between 1250 and 1550, and explores artistic style, patronage, historical influences, and broad cultural influences on art. Includes lectures and class discussion on the major art works and artists in Florence, Rome and Venice.

ARTH 3050
Baroque Art and Architecture History 3
* Prerequisite(s): ARTH 2720 (ARTH 2710 recommended), ENGL 1010 or ENGH 1005, and University Advanced Standing
Studies major art works and artists in Italy, Spain and France during the 17th Century. Explores the artistic, historical, religious, and broad cultural influences on the art of this period.

ARTH 3055
Northern Baroque Art History 3
* Prerequisite(s): ARTH 2720, ENGL 1010 or ENGH 1005, and University Advanced Standing
Studies major artists and artworks of northern Europe during the 17th century. Explores the artistic, historical, religious, and broad cultural influences on the art of this period, primarily focusing on artists working in Flanders and the Dutch Republic, as well as those from surrounding northern regions.

ARTH 3060
Nineteenth-Century Art History 3
* Prerequisite(s): ARTH 2720 (ARTH 2710 recommended), ENGL 1010 or ENGH 1005, and University Advanced Standing
Studies leading artists and movements of the 19th century, emphasizing artistic developments in Europe between 1750 and 1900, primarily in France. Explores the broad, historical, social, cultural, and philosophical changes that took place and influenced the visual arts of the century. Includes lecture and class discussions.

ARTH 3070
Modern Art and Architecture History WE 3
* Prerequisite(s): ARTH 2720, ENGL 1010 or ENGH 1005, and University Advanced Standing
Studies leading artists, artworks, and movements. Explores the broad cultural, historical, and philosophical influences on modern art and architecture. Includes lectures and class discussions on modern art and architecture.

ARTH 3080
History of Architecture 3
* Prerequisite(s): (ARTH 2710 or ARTH 2720 or B-ARCH degree student with department approval), (ENGL 1010 or ENGH 1005), and University Advanced Standing
Surveys developments in architecture over the centuries, focusing on a variety of periods and leading innovators. Includes the role of technology as well as the broad cultural background in which the architecture was created.

ARTH 309G
Introduction to Non Western Ancient Art 3
* Prerequisite(s): (ARTH 2710 or ARTH 2720), (ENGL 1010 or ENGH 1005), and University Advanced Standing
Introduces students to the art and architecture of the non-western cultures of East Asia, Southeast Asia, Sub-Saharan Africa, Islam, Oceania and the Americas from before the period of Western Colonialism and domination (the course may focus on all or only one of these areas depending on faculty expertise). Places Non-Western art into its native context and discusses the religious, cultural, political, and philosophical world views in which art and architecture were produced in contrast to Western stereotypes or biases of Non-Western cultures. Canvas Course Mats $60/Cengage applies.

ARTH 3100
History of American Art and Architecture 3
* Prerequisite(s): (ARTH 2710 or ARTH 2720 or B-ARCH degree student with department approval), (ENGL 1010 or ENGH 1005), and University Advanced Standing
Studies leading artists, architects and movements in America from the colonial era to the 1950s. Explores the aesthetic, social, political, and technological changes that impacted the development of art and architecture in America, with an emphasis on the styles and movements of the nineteenth and twentieth centuries. Includes lecture and class discussions.

ARTH 3110
The History of Illustration WE 3
* Prerequisite(s): University Advanced Standing
Surveys the history of illustration as visual communication. Discusses major movements and the influence of technological advancements in printing and broadcast media on the field of illustration. Focuses primarily on the period from 1860 to the present.

ARTH 3120
History of Contemporary Art 3
* Prerequisite(s): (ARTH 2710 or ARTH 2720), (ENGL 1010 or ENGH 1005), and University Advanced Standing
Studies themes and trends related to contemporary art. Explores the diverse influences that impacted art from late modernism to the twenty-first century. Emphasis will be given to understanding the pluralism of international contemporary art from the last three decades. Includes lecture and class discussions.

ARTH 3200
The History of Photography 3
* Prerequisite(s): (ARTH 2710 or ARTH 2720) and University Advanced Standing
Traces the different directions photography has taken since its inception, using the social and cultural environment as a context. Investigates the ever-increasing use of photography by artists in the creative process from the first uses of the camera obscura to the present. Discusses the developments that set the stage for the "invention" of photography and how photography changed the role of artists in the 19th and 20th centuries. Covers documentary photography and the rise of fine art photography as separate art forms.

ARTH 3300
Introduction to Museum Studies 3
* Prerequisite(s): Students must be a declared Art and Design major (or admittance to class by instructor) and have taken either ARTH 2710 or ARTH 2720, University Advanced Standing.
Introduces students to theoretical knowledge and practical skills needed to work in the museum environment. Teaches the basic functions and operations of museums, as well as art historical connections to these nonprofit organizations.
**American Sign Language (ASL)**

**ASL 1000**: *Introduction to the Deaf World*

- **3 credits**
- Focuses on the nature, make-up, and significance of the Deaf-World as a linguistic and cultural minority group. Gives special attention to the different ways that deaf people form a minority group thereby adding diversity to society at large. Also addresses the diversity within the group and the sociological factors that affect its makeup. Introduces American Sign Language (ASL) and teaches some basic conversational skills. Gives special attention to the differences between the ways hearing and Deaf people construct meanings associated with deaf people. Taught in (or interpreted into) English.

**ASL 1010**: *Beginning American Sign Language I*

- **3 credits**
- Introduces American Sign Language (ASL) to students with no previous experience with ASL. Emphasizes the use of an immersion approach to language learning. Emphasizes basic expressive and receptive conversational skills. Includes introduction to American Deaf culture. Requires weekly lab. Canvas Course Mats of $72/True Way applies. Lab access fee of $10 applies.

**ASL 1020**: *Beginning American Sign Language II*

- **4 credits**
- *Prerequisite(s): Students should have equivalent knowledge of ASL 1010*
- Builds on the experiences in ASL 1010. Emphasizes basic expressive and receptive conversational skills through active student participation. Continues introduction to American Deaf culture. Requires a weekly lab. Canvas Course Mats of $72/True Way applies. Lab access fee of $10 applies.

**ASL 2010**: *Intermediate American Sign Language I*

- **4 credits**
- *Prerequisite(s): Students should have equivalent knowledge of ASL 1020*
- Reviews and builds upon the grammar and conversational skills learned in the first year courses. Concentrates on understanding and acquiring more advanced conversational proficiency in ASL. Emphasizes the use of various kinds of ASL classifiers in the function of describing objects and in providing locative information. Analyzes Deaf culture with an emphasis on the struggles of this linguistic minority with a majority controlled educational establishment with particular attention to the effects on individual Deaf lives. Canvas Course Mats of $72/True Way applies. Lab access fee of $10 applies.

**ASL 202G**: *Intermediate American Sign Language II*

- **4 credits**
- *Prerequisite(s): Students should have equivalent knowledge of ASL 2010*
- Continues applied conversation use of ASL through literature, narratives, poetry, and creative sign play. Analyzes ASL grammatical principles and Deaf cultural experiences to explore and understand various underlying metaphors found in ASL literature. Requires Deaf community exposure and involvement. Canvas Course Mats of $72/True Way applies. Lab access fee of $10 applies.

**ASL 115R**: *ASL Conversation I*

- **1 credit**
- Offers novice ASL users opportunities to enhance their proficiency in the target language by focusing on production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, and sharpen comprehension for natural conversational flow. Contrasts with all other first-year courses which must strive to produce mastery of the whole range of language acquisition components. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of conversational opportunities. Increases mastery of lexical items through increased frequency of use. May be repeated for a maximum of 3 credits toward graduation. Taught in ASL. 

**Fingerspelling in American Sign Language**

**ASL 2030**: *Fingerspelling in American Sign Language*

- **3 credits**
- *Prerequisite(s): ASL 1020 or equivalent knowledge*
- Focuses on the patterns of ASL fingerspelling, one of the hardest ASL skills to master. Increases ability to accurately produce and comprehend ASL fingerspelling. Gives attention to the nature and application of fingerspelling within the sociocultural context of the Deaf-World. Taught in ASL.
ASL 2040
Numbers in American Sign Language
1
* Prerequisite(s): ASL 1020 or equivalent knowledge

Focuses on the complex rule systems governing ASL numbers as used in a wide range of settings. Increases ability to accurately produce and comprehend contextually situated ASL numbers. Taught in ASL.

ASL 2050
Advanced ASL Grammar
3
* Prerequisite(s): Students should have equivalent knowledge of ASL 202G

Explores the grammar of ASL focusing on areas typically difficult for English speakers, particularly ASL classifiers. Provides extensive instruction and opportunity for students to improve both comprehension and production through regular interaction. Taught in ASL. Lab access fee of $10 applies.

ASL 215R
ASL Conversation II
1
* Prerequisite(s): Students should have equivalent knowledge of ASL 1020

Offers lower division/novice ASL users opportunities to enhance their proficiency in the target language by focusing on production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, sharpen comprehension, and develop conversational strategies such as circumlocution and managing a conversation with useful expressions for starting a conversation, gaining time to think, helping interlocutors, seeking agreement, etc. Contrasts with all other first year courses which must strive to produce mastery of the whole range of language acquisition components. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of production opportunities and defusing concern about new vocabulary and grammar. Increases mastery of lexical items through increased frequency of use. May be repeated for a maximum of 3 credits toward graduation.

ASL 3000
Technology for Deaf Studies
3
* Prerequisite(s): It is recommended that students complete ASL 202G or have equivalent skills acquired through classes elsewhere or other through life experiences.

Examines various forms of media that will help Deaf Studies students succeed in both the pursuit of their academic degrees and in real-world work environments. Draws on the theoretical approaches of the Visual Culture field to explore visual theory, museums, memorials, film and video. Gives in-depth instruction in the use of multiple digital technologies used in higher-level Deaf Studies classes and in work environments associated with Deaf people. Taught in ASL.

ASL 3050
Advanced American Sign Language
3
* Prerequisite(s): It is recommended that students complete ASL 202G or have equivalent skills acquired through classes elsewhere or other through life experiences.

Focuses on grammatical and linguistic aspects of ASL, including the following: sign formation, morphological structures, syntactic structures, pronominalization, identification and analysis of subjects and objects, classifiers, depicting verbs, pluralization, time concepts, and social interaction of language and culture within Deaf communities. Lab access fee of $10 applies.

ASL 315R
ASL Conversation III
1
* Prerequisite(s): (ASL 202G or equivalent knowledge) and University Advanced Standing

Offers intermediate ASL users opportunities to enhance their proficiency in the target language by focusing on production. Centers on discussions from a selected reading list in 'book club' form. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, and sharpen comprehension for natural conversational flow. Contrasts with all other third-year courses which are more specialized settings such as medical, legal, mental health, and theatre. Includes history, models, and professional certification procedures of interpreting; cognitive processes, physical and psychological factors, intercultural communication, ethics, and situational interpreting. Deaf students are encouraged to enroll. This course may be taught as a hybrid.

ASL 3310
Foundations of Interpreting
3
* Prerequisite(s): ASL 3050 and University Advanced Standing

Introduces bidirectional (ASL-to-English and English-to-ASL) interpreting between Deaf and hearing people. Studies the profession and skills necessary to be an interpreter. Includes history, models, and professional certification procedures of interpreting; cognitive processes, physical and psychological factors, intercultural communication, ethics, and situational interpreting. Deaf students are encouraged to enroll. This course may be taught as a hybrid.

ASL 3320
Physiology of Interpreting
3
* Prerequisite(s): ASL 202G and University Advanced Standing

Introduces students to skills and processes required to maintain health and wellbeing in the physically demanding and high stress field of interpreting. Develops cognitive, ergonomic, and tasking abilities required to interpret without stress or physical injury. Helps students better understand how a healthy lifestyle and developing good habits can improve their skills and prevent injury. Lab access fee of $10 applies.

ASL 3330
Cross Cultural Communication and Interpreting
3
* Prerequisite(s): ASL 3150 and University Advanced Standing

Builds on ASL 310. Focuses heavily on the practice of interpreting with special emphasis on the dimension of intercultural communication. Requires regular skill-building exercises in both consecutive and simultaneous interpretation, both English-to-ASL and ASL-to-English. Deaf students are encouraged to enroll. Taught in ASL. Lab access fee of $10 applies.

ASL 3340
Interpreting as a Profession
3
* Prerequisite(s): ASL 3310 and University Advanced Standing

Builds on the principles (ASL-to-English and English-to-ASL) for interpreting between Deaf and hearing people taught in Interpreting I. Studies the profession and skills necessary to be an interpreter in more specialized settings such as medical, legal, mental health, and theatre. Includes history, models, and professional certification procedures of interpreting; cognitive processes, physical and psychological factors, intercultural communication, ethics, and situational interpreting. Deaf students are encouraged to enroll. Lab access fee of $10 applies.
Course Descriptions

**ASL 3350**  
Consecutive Interpreting  3  
* Prerequisite(s): ASL 3310, matriculation into the Interpreting Emphasis, and University Advanced Standing

Introduces skills and processes required to produce consecutive interpretations. Focuses on developing basic cognitive, semantic, and dual tasking abilities required to interpret rehearsed sets of technical or field-specific signs and applying these to interpretative work. Includes one-hour per week lab. Taught in ASL. Lab access fee of $10 applies.

**ASL 3360**  
Simultaneous Interpreting  3  
* Prerequisite(s): ASL 3350 and matriculation into the Interpreting Emphasis and University Advanced Standing

Introduces skills and processes required to produce simultaneous interpretations. Focuses on transitioning from consecutive interpreting to time-limited simultaneous interpreting. Develops cognitive, semantic, and dual tasking abilities required to interpret spontaneous texts. Teaches to incorporate semantic choice, register, and ethical behavioral decisions and understand how they impact interpretation. Develops sets of technical or field-specific signs and applies these to interpretative work. Includes one-hour per week tab. Taught in ASL. Lab access fee of $10 applies.

**ASL 3370**  
Sign to Voice Interpreting  3  
* Prerequisite(s): ASL 3360 and matriculation into the Interpreting Emphasis and University Advanced Standing

Introduces skills and processes required to produce conceptually accurate and linguistically appropriate voice interpretations of ASL texts. Develops cognitive, semantic, and dual tasking abilities required to interpret spontaneous texts. Teaches and incorporates more advanced semantic choices and negotiation techniques. Works with a variety of audience sizes and types. Teaches how ethics impact behavioral decisions and interpretations. Gives more consideration to developing sets of technical or field-specific signs and applying these to interpretative work. Includes one-hour per week lab. Taught in ASL. Lab access fee of $10 applies.

**ASL 3380**  
Transliteration  3  
* Prerequisite(s): ASL 3360, matriculation into the Interpreting Emphasis and University Advanced Standing

Introduces skills and processes required to produce conceptually accurate and linguistically appropriate messages using ASL signs in an English word order. Develops cognitive, semantic, and dual tasking abilities required to interpret spontaneous texts. Teaches and incorporates more advanced semantic choices and negotiation techniques. Works with a variety of audience sizes and types. Teaches how ethics impact behavioral decisions and interpretations. Gives more consideration to developing sets of technical or field-specific signs and applying these to interpretative work. Includes one-hour per week lab. Lab access fee of $10 applies.

**ASL 3390**  
Professional Issues in Interpreting  3  
* Prerequisite(s): ASL 3310 and University Advanced Standing

Provides students advanced study and skills development in the business and profession of interpreting, decision making while interpreting between Deaf (including Deaf-blind) and hearing populations, and negotiation of the complex and growing field of interpreting. Students develop the understanding of the day to day demands of the work needed become truly professional interpreters. Provides extensive individual feedback. Lab access fee of $10 applies.

**ASL 3510**  
History of Deaf People to 1817  3  
* Prerequisite(s): ASL 202G or equivalent knowledge and University Advanced Standing

Explores chronologically to 1817 the formation and treatment of the Deaf community and culture. Emphasizes the rise of deaf education in a European setting and on the links to American Deaf education. Examines perceptions of deaf people and language across this period. Taught in ASL.

**ASL 3520**  
History of Deaf People after 1817  3  
* Prerequisite(s): ASL 202G or equivalent and University Advanced Standing

Explores the evolution and treatment of the Deaf community and culture emphasizing activities in the United States chronologically from 1817 onward. Emphasizes the rise of oralism, the development of deaf residential schools, the emergence of American Deaf culture and the recognition of ASL as a true language. Taught in ASL.

**ASL 3530**  
Modern Deaf Culture WE  3  
* Prerequisite(s): (ASL 202G or department approval) and University Advanced Standing

Explores the culture of the American Deaf people following the recognition of American Sign Language as a legitimate, naturally-occurring sign language. Examines constructions of Deaf people as a linguistic minority whose mores, beliefs, values and traditions emanate from a shared worldview that differs markedly from the view usually ascribed to them by others. Taught in ASL with a writing component.

**ASL 3610**  
ASL Literature  3  
* Prerequisite(s): ASL 3050 and University Advanced Standing

Explores the dynamics of ASL literature and its traditions by studying various genres and ASL storytellers. Uses the similarities and differences in the development of traditional oral literature in other cultures to ASL literature as a tool in discussions and critiques. Covers general narratives and the unique aspects and techniques of telling stories in sign language. Teaches how to critique and to produce ASL literature. Taught in ASL. May be delivered hybrid and/or online.

**ASL 3710**  
Deaf Visual Arts  3  
* Prerequisite(s): ASL 3050 and (ASL 3510 or 3520 or 3530) and University Advanced Standing

Explores the role of visual arts in the Deaf-World with particular attention to Deaf/View Image Art (De/VIA), whose subject matter and style represent a Deaf worldview and cinema (including popular culture). Examines the historical and current contributions of Deaf artists, actors, and filmmakers. Takes as a reference other art movements stemming from oppression. Studies aims, motivations, and challenges portrayed in various art pieces and cinematic works. Taught in ASL. May be delivered hybrid.

**ASL 3750**  
Deaf Cinema  3  
* Prerequisite(s): ASL 3050 and University Advanced Standing

Explores the role of visual arts in the Deaf-World with particular attention to Deaf/View Image Art (De/VIA), whose subject matter and style represent a Deaf worldview and cinema (including popular culture). Examines the historical and current contributions of Deaf artists, actors, and filmmakers. Takes as a reference other art movements stemming from oppression. Studies aims, motivations, and challenges portrayed in various art pieces and cinematic works. Taught in ASL. May be delivered hybrid.
ASL 385G
Audism/Linguicism/Oppression
3
* Prerequisite(s): [ASL 3050 and (ASL 3510 or ASL 3520 or ASL 3530)] or department approval] and University Advanced Standing
Examines oppression in various forms through a comparative study spanning across cultures and communities. Examines the parallels between widely-understood forms of oppression and those specific to the Deaf-World. Fulfills Global/Intercultural graduation requirement.

ASL 415R
ASL Conversation IV
1
* Prerequisite(s): ASL 3050 and University Advanced Standing
Offers intermediate/advanced ASL users opportunities to enhance their proficiency in the target language by focusing on production. Centers on discussions from a selected reading list in ‘book club’ form. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, and sharpen comprehension for natural conversational flow. Contrasts with all other upper division ASL courses which are more content based. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of conversational opportunities. May be repeated for a maximum of 3 credits toward graduation.

ASL 4330
Visual Linguistic Analysis for Interpreters
3
* Prerequisite(s): ASL 3350, matriculation into the Interpreting Emphasis and University Advanced Standing
Teaches necessary processing skills related to interpreting from Sign to spoken languages including ability to concentrate and analyze visual linguistic and non-manual markers. Analyzes discourse focusing on context, linguistics, and culture. Lab required. Lab access fee of $10 applies.

ASL 4360
Legal Interpreting
3
* Prerequisite(s): ASL 3350 and matriculation into the Interpreting Emphasis and University Advanced Standing
Provides a conceptual understanding of the American legal system, and the unique cultural challenges related to interpreting for parties within the system. Examines both the law and Deafness and the areas of language and cultural mediation required to effectively facilitate communication between people who are Deaf and people who are hearing in legal settings. Lab access fee of $10 applies.

ASL 4370
Ethics for Interpreters
3
* Prerequisite(s): ASL 3310 and University Advanced Standing
Provides students advanced study and skills development in ethical decision making while interpreting between Deaf (including Deaf-blind) and hearing populations, including interpreting in Educational, Higher Ed. Legal, Mental Health and Medical situations. Helps students develop the ethical understanding needed to become truly professional interpreters. Provides extensive individual feedback to rapidly improve students' interpreting skills and understanding of the complex nature of interpreting ethics. This course may be taught as a hybrid. Lab access fee of $10 applies.

ASL 4380
Applying Interpreting Skills to Coursework--Medical
3
* Prerequisite(s): ASL 3350; ASL 3360, matriculation into the Interpreting Emphasis, and University Advanced Standing.
Guides interpreters through skill sets applied to real life classroom lectures, specifically medical and psychology courses offered online through accredited universities. Requires practical application of specific interpreting skills and techniques as well as course preparation and acquisition of course specific knowledge to develop balanced interpreting practices, including both specific applicable skills in interpretation and a broad based liberal arts knowledge to which the skills are applied.

ASL 4381
Applying Interpreting Skills to Coursework--Education
3
* Prerequisite(s): ASL 3350, ASL 3360, matriculation into the Interpreting Emphasis, and University Advanced Standing.
Guides interpreters through skill sets applied to real life classroom lectures, specifically education and organizational courses offered online through accredited universities. Requires practical application of specific interpreting skills and techniques as well as course preparation and acquisition of course specific knowledge to develop balanced interpreting practices, including both specific applicable skills in interpretation and a broad based liberal arts knowledge to which the skills are applied.

ASL 4382
Applying Interpreting Skills to Coursework--Community
3
* Prerequisite(s): ASL 3350, ASL 3360, matriculation into the Interpreting Emphasis, and University Advanced Standing.
Guides interpreters through skill sets applied to real life classroom lectures, specifically education and organizational courses offered online through accredited universities. Requires practical application of specific interpreting skills and techniques as well as course preparation and acquisition of course specific knowledge to develop balanced interpreting practices, including both specific applicable skills in interpretation and a broad based liberal arts knowledge to which the skills are applied.

ASL 4383
Applying Interpreting Skills to Coursework--Law
3
* Prerequisite(s): ASL 3350, ASL 3360, matriculation into the Interpreting Emphasis, and University Advanced Standing.
Guides interpreters through skill sets applied to real life courtroom lectures, specifically law and justice courses offered online through accredited universities and sample courtroom scenarios. Requires practical application of specific interpreting skills and techniques as well as course preparation and acquisition of course specific knowledge to develop balanced interpreting practices, including both specific applicable skills in interpretation and a broad based liberal arts knowledge to which the skills are applied.

ASL 439R
Special Topics in Interpreting
3
* Prerequisite(s): ASL 3310 and University Advanced Standing
Provides students advanced study and skills development in interpreting between deaf (including deaf-blind) and hearing populations. Focuses on different topics deemed appropriate (e.g., variety of academic, business, or social contexts). Provides extensive individual feedback to rapidly improve students’ interpreting skills and understanding of the complex nature of the interpreting process. Repeatable for a maximum of 9 credits toward graduation. Lab access fee of $10 applies.
**Course Descriptions**

**ASL 4410**  
ASL Linguistics  3  
* Prerequisite(s): ASL 3050 and University Advanced Standing

Introduces the linguistic study of ASL, including phonology, morphology, syntax, semantics, and discourse structure. Emphasizes grammatical structures of ASL, including sign formation, pronominalization, identification and analysis of subjects and objects, classifiers, depicting verbs, pluralization, time concepts, and social interaction of language and culture within Deaf communities. Taught in ASL.

**ASL 4450**  
Deaf World Discourse  3  
* Prerequisite(s): ASL 3050 and University Advanced Standing

Examines the discourse practices of the Deaf-World. Studies the ways that Deaf people use discursive forms to accomplish specific social aims. Explores the semiotic connections between discursive forms and various Deaf-World identities. Adopts an anthropological bias toward real-world discourse as primary data, and prepares students to do ethnographic fieldwork in the Deaf-World. Taught in ASL.

**ASL 4520**  
Deaf People and Disability Studies  3  
* Prerequisite(s): ASL 3050 and University Advanced Standing

Introduces the field of disability studies and shows where Deaf people fit within this field. Explores the historical, social, political, religious, philosophical, and cultural influences that construct and influence the categories of "disability" and "deafness." Examines the complex relation between Deaf and disability rights groups as well as how Deaf people and persons with disabilities construct their own meanings and identities. Taught in ASL.

**ASL 4530**  
Deaf Peoples of the World  3  
* Prerequisite(s): ASL 3530 and University Advanced Standing

Explores the lives of Deaf people in various places around the world. Considers the extent to which the deaf experience is cross-cultural and to what extent it is unique to specific locations. Explores the lifestyles, educational opportunities, political climate and level of community development of deaf people across the globe. Seeks to illuminate areas of overlap and of difference among the worldviews of various communities.

**ASL 4550**  
Multicultural Deaf Lives  3  
* Prerequisite(s): ASL 3050 and University Advanced Standing

Focuses on cultural issues, values, behaviors, identities and language of Deaf people from diverse backgrounds. Examines autobiographies, documentaries, films, videos, and academic literature to help understand the contributions and historical development of the emerging majority of the Deaf community that is underrepresented in the United States and the world. Taught in ASL. May be delivered online.

**ASL 4560**  
Deaf People and the Law  3  
* Prerequisite(s): ASL 3050 and University Advanced Standing

Focuses on the impact of laws and the legal system in the lives of people who are Deaf and the role such laws and the legal system play in the general understanding of Deafness in the United States. Explores in detail the rights of persons who are Deaf in a hearing world. Taught in ASL.

**ASL 4610**  
ASL Literature II  3  
* Prerequisite(s): ASL 3610 and University Advanced Standing

Explores the dynamics of ASL literature and its traditions by studying various genres and ASL storytellers/poets. Covers stories with handshake constraints, poetry, and songs. Taught in ASL. May be delivered hybrid and/or online.

**ASL 4800**  
Recent Trends in Deaf Studies Theory WE  3  
* Prerequisite(s): (ASL 3510 or 3520 or 3530) and University Advanced Standing

Explores recent trends in American Deaf culture, including cultural conflicts, tensions, and solutions. Provides a comprehensive study of theories used, including Deaf Gain, in Deaf Studies through analysis of current issues, writings and other media publications, and the expressions of Deaf people themselves. Taught in ASL. Lab access fee of $10 applies.

**ASL 4850**  
Advanced Understanding of Oppression and Audism  3  
* Prerequisite(s): ASL 385G and University Advanced Standing

Examines the various ways in which hearing people oppress Deaf people. Explores different avenues through which society has built a system of privilege based on an audiocentric center. Also examines how certain members of the Deaf community internalize audist constructions of deafness.

**ASL 4890**  
Deaf Studies Senior Capstone  3  
* Prerequisite(s): Senior status and University Advanced Standing

Engages students in a synthesis and critical review of what they have learned through coursework. Produces a project or thesis reflecting students' knowledge and passionate interests developed in the course of their study as a Deaf Studies major. Taught in ASL.

**ASL 490R**  
Special Topics in Deaf Studies  1 to 3  
* Prerequisite(s): ASL 3050 and University Advanced Standing

Presents selected topics in Deaf Studies. Varies each semester. Topics will reflect the interdisciplinary nature of the Deaf Studies field. Projects and evaluation will vary according to the topic. May be repeated for a maximum of 9 credits with different topics.

**ASL 495R**  
Independent Study in Deaf Studies  1 to 3  
* Prerequisite(s): For Deaf Studies students only; Instructor approval, Program Coordinator/Department Chair approval, and University Advanced Standing

Provides independent study as directed in reading and individual projects specifically related to the Deaf Studies field at the discretion and approval of the Dean and/or Department Chair. May be repeated for a maximum of 6 credits toward graduation.

**Astronomy (ASTR)**

**ASTR 1040**  
PP Elementary Astronomy  3

Introduces astronomy and cosmology. Provides a physics-based overview of the solar system, the lives and deaths of stars, galaxies, and the evolution of the Universe. Explores the basic principles of physics and light, the tools of astronomy, and interesting concepts such as the Big Bang and black holes. Canvas Course Mats $67/Pearson applies

**ASTR 104H**  
Elementary Astronomy PP  3  
* Prerequisite(s): MATH 1050 or MATH 1055

As an honors section, this course requires a greater level of engagement and greater level of proficiency on the part of the student. Introduces astronomy and cosmology. Provides a physics-based overview of the solar system, the lives and deaths of stars, galaxies, and the evolution of the Universe. Explores the basic principles of physics and light, the tools of astronomy, and interesting concepts such as the Big Bang and black holes.
**ASTR 1070**
Cultural Astronomy in Our Lives 3
Explores the visible sky as seen with the naked eye. Presents examples of cultural interpretations of the sun, moon, planets and stars, methods of keeping calendars, and changes that occur through the seasons. Studies the motions of the planets, including the earth, and changes in the sky from different latitudes. Investigates how astronomy has impacted the lives of people throughout the ages and around the world. Includes extensive use of the UVU planetarium, nighttime observation, illustrated lectures, and class demonstrations. Canvas Course Mats $67/Pearson applies.

**ASTR 107H**
Cultural Astronomy in Our Lives 3
Explores the visible sky as seen with the naked eye. Presents examples of cultural interpretations of the sun, moon, planets and stars, methods of keeping calendars, and changes that occur through the seasons. Studies the motions of the planets, including the earth, and changes in the sky from different latitudes. Investigates how astronomy has impacted the lives of people throughout the ages and around the world. Includes extensive use of the UVU planetarium, nighttime observation, illustrated lectures, and class discussion.

**ASTR 1080**
Life in the Universe 3
Presents a general introduction to the scientific method of understanding life, its origins, and its place in the universe. Discusses the philosophy governing the scientific view of learning about life. Treats in detail what life is, the adaptability of life and how it evolves, why Earthlike conditions resulted in life as we know it, what other environmental conditions might sustain life, and where life may be found beyond Earth.

**ASTR 2040**
Intermediate Astronomy 3
* Prerequisite(s): PHYS 2210
Introduces astronomy and cosmology with an emphasis on the physical principles underlying astronomical phenomena. Provides a physical and mathematical overview of the solar system, the nature and evolution of stars, galaxies, dark matter and dark energy, the large scale structure of the Universe, the Big Bang, and Inflation.

**ASTR 290R**
Independent Study 1 to 5
For students interested in advanced topics in astronomy and cosmology. Students may choose their own course of study under the guidance of an assigned faculty member.

**ASTR 3050**
Astrophysics I 3
* Prerequisite(s): PHYS 2220, MATH 1220, and University Advanced Standing
Covers the physics of stars, stellar structure and evolution, and the solar system. Treats in detail the current methods of astronomical data collection and analysis. Discusses the mathematics of the laws of stellar structure and their implications for the birth, life, and death of stars.

**ASTR 3060**
Astrophysics II 3
* Prerequisite(s): PHYS 2220, MATH 1220, ASTR 3050, and University Advanced Standing
Covers the physics of galaxies and cosmology. Treats in detail the current methods of astronomical data collection and analysis as it relates to these topics. Discusses the mathematics of the Theories of Relativity and its implications for the origin and structure of the Universe.

**ASTR 4100**
Brown Dwarfs and Exoplanets 3
* Prerequisite(s): PHYS 2220, MATH 1220, and University Advanced Standing
* Prerequisite(s) or Corequisite(s): PHYS 3100
Provides an advanced, calculus-based introduction to the rapidly evolving field of brown dwarfs and extrasolar planets (exoplanets). Includes topics related to the theory of substellar objects, planetary formation, planetary interiors, planetary atmospheres, planetary orbits, and observational methods for detecting and characterizing brown dwarfs and exoplanets.

**ASTR 4350**
Research Methods in Astronomy 3
* Prerequisite(s): Instructor Approval and University Advanced Standing
Presents directed topics in research methods in astronomy. Prepares students to conduct astronomy research projects. Emphasizes practical methodologies in measurement, software, error analysis, and statistical analysis. Requires a class project. May require use of specialized astronomical image processing software (e.g., IRAF and PyRAF) and other programming languages. Includes practice producing oral presentations, posters and journal articles using contemporary software and LaTeX.

**AUT 1000**
Survey of Automotive Technology 2
An introductory course for those interested in Automotive Technology. Presents basic automotive repair lessons on ignition and fuel systems, brakes, CV joints, and emissions for state inspections. Discusses electrical accessories, computerized engine controls, and chassis components.

**AUT 100L**
Survey of Automotive Lab 1
* Corequisite(s): AUT 1000
Introductory course for those interested in Automotive Technology. Offers basic automotive repair lab experiences on proper and safe equipment usage, vehicle construction, engine operation, steering and suspension components, brakes, measuring and diagnostic tools. Tool room fee of $19 for equipment applies.

**AUT 1010**
Maintenance and Light Repair 2
Teaches skills in shop safety and basic skills to prepare students for future automotive technology-related courses and placement in high skill, high paying employment. Includes service information systems, precision measurement, tire and wheel service, bearings, headlamp adjustment, lubricants and fluids, cleaning methods, gaskets and sealants, belts and hoses, cooling systems, and other systems.

**AUT 101L**
Maintenance and Light Repair Lab 1
Develops necessary skills in shop safety and basic maintenance skills. Presents basic maintenance and light repair of vehicle systems. Prepares students for future automotive technology related courses and placement in high skill, high paying employment areas. Examines vehicle system operations such as: service information, precision measurement, tires and wheels, brakes, headlamp adjustment, lubricants and fluids, cleaning methods, gaskets and sealants, belts and hoses and cooling systems.
AUT 1110
Brake Systems
2
* Corequisite(s): AUT 111L Recommended
For automotive majors and other interested community members. Covers the principles of automotive braking including hydraulic theory, diagnosis, and service of brake systems. Studies drum, disc, and power units. Includes wheel bearing adjustments, packing, and troubleshooting. Discusses tire construction including both lateral and radial run out and wheel balancing techniques. Software fee of $10 applies. Lab access fee of $15 for computers applies.

AUT 111L
Brake Systems Lab
1
* Prerequisite(s) or Corequisite(s): AUT 1110
Provides hands on brake systems instruction, including drum, disc, and power units. Includes wheel bearing adjustments, packing, and troubleshooting. Labs include tire construction, both lateral and radial run out and wheel balancing techniques. Tool room fee of $19 for equipment applies. Course Lab fee of $17 for computers applies.

AUT 1120
Manual Power Trains
2
* Corequisite(s): AUT 112L Recommended
For automotive majors and other interested community members. Designed to develop skills and knowledge in the area of manual transmission/transaxles and driveline components. Covers the function, construction, operation, inspection, troubleshooting and servicing of front, rear, and four-wheel drive power transmission devices used in passenger cars and light trucks. Software fee of $10 applies. Lab access fee of $15 for computers applies.

AUT 112L
Manual Power Trains Lab
1
* Prerequisite(s) or Corequisite(s): AUT 1120
Define diagnosis and repair of manual transmissions including transaxles, differentials, drive shafts, and four wheel drive components. Operation of clutches with torque and gear application. Tool room fee of $19 for equipment applies. Course Lab fee of $16 for materials applies.

AUT 1130
Engine Repair
2
* Corequisite(s): AUT 113L Recommended
Offers an in-depth study of design, operation, troubleshooting, and service procedures for modern gasoline and diesel engines. Presents procedures for disassembly and reassembly of engine units, service, and technical data. Software fee of $10 applies. Lab access fee of $15 for computers applies.

AUT 113A
Engine Repair
2
For automotive majors and other interested community members. Studies construction, operation, and performance of various types of engines. Covers the theory of combustion, and characteristics of fuels, lubrication systems, cooling systems, timing valves, and wear problems with all other parts of the engine. Includes lab experience. Tool room fee of $10 for equipment applies.

AUT 113B
Engine Repair
2
Designed for anyone interested in small-engine repair. Includes hands hands-on application with shop time. Offers practical information about small engines, theory, operations, and maintenance. Provides information, troubleshooting and service techniques for snowmobiles, 4-wheelers, personal watercraft, mowers, tillers, and other small engine applications.

AUT 113L
Engine Repair Lab
1
* Prerequisite(s) or Corequisite(s): AUT 1130
Provides a laboratory experience enhanced by following the Engine Repair ASE task list. Emphases demonstrations, observations and hands-on participation. Utilizes actual vehicle systems of major manufactures to supplement training. Tool room fee of $19 for equipment applies. Course Lab fee of $17 for materials applies.

AUT 1160
Automotive Electrical Systems
2
* Corequisite(s): AUT 116L Recommended
Studies electrical and electronic fundamentals found and used on current model automobiles and trucks. Topics of study are: electricity, Ohm's Law, magnetism, inductance, capacitance, electronic devices, schematic user's information, test procedures, test equipment, and batteries.

AUT 116L
Automotive Electrical Systems Lab
1
* Prerequisite(s) or Corequisite(s): AUT 1160
Studies electrical and electronic fundamentals found and used on current model automobiles and trucks. Topics of study are: electricity, Ohm's Law, magnetism, inductance, capacitance, electronic devices, schematic user's information, test procedures, test equipment, and batteries. Lab exercises are correlated with the Automotive Service Excellence (ASE) P1 task list. Lab work will include activities on lab circuitry and live vehicles. Tool room fee of $19 for equipment applies. Course Lab fee of $17 for materials applies.

AUT 1170
Engine Electrical Systems
2
* Corequisite(s): AUT 1160, AUT 117L Recommended
Studies the function, construction, operation, testing, diagnosis and servicing of automotive ignition systems, starting, charging/generator systems and battery testing using a variety of diagnostic test equipment. Proper use of diagnostic test equipment in the lab and on vehicle systems will stressed. Tool room fee of $19 for equipment applies. Course Lab fee of $17 for materials applies.

AUT 117L
Engine Electrical Systems Lab
1
Studies the function, construction, operation, testing, diagnosis and servicing of automotive ignition systems, starting, charging systems and battery testing using a variety of diagnostic test equipment. Proper use of diagnostic test equipment in the lab and on vehicle systems will stressed. Tool room fee of $19 for equipment applies. Course Lab fee of $17 for materials applies.

AUT 1210
Suspension and Steering Systems
2
* Corequisite(s): AUT 121L Recommended
Discusses nomenclature, theory of operation, and service procedures for passenger car and light-truck suspensions and computer controlled power steering systems. Includes instruction in two-wheel and four-wheel electronic systems. Presents methods of alignment including computerized alignment and service tools. Software fee of $10 applies. Lab access fee of $15 for computers applies.

AUT 121L
Suspension and Steering Systems Lab
1
* Prerequisite(s) or Corequisite(s): AUT 1210
Provides a laboratory experience enhanced by following the Suspension and Steering ASE task list. Emphases demonstrations, observations and hands-on participation. Utilizes actual vehicle systems of major manufactures to supplement training. Tool room fee of $19 for equipment applies. Course Lab fee of $17 for materials applies.

AUT 1220
Automatic Powertrain Systems
2
* Corequisite(s): AUT 122L
Includes the operation, diagnosis, repair, and adjustment of automatic transmissions and transaxes. Covers planetary gearing, strategies for operation, and service procedures of passenger car, SUVs and light-trucks. Software fee of $10 for applies. Lab access fee of $15 for computers applies.
AUT 122L
Automatic Transmissions and Transaxles Lab
1
* Prerequisite(s) or Corequisite(s): AUT 1220
Provides a laboratory experience enhanced by following the Automatic Transmissions and Transaxles ASE task list. Emphasizes demonstrations, observations and hands-on participation. Utilizes actual vehicle systems of major manufacturers to supplement training. Tool room fee of $19 for equipment applies. Course Lab fee of $19 for materials applies.

AUT 1230
Engine Performance
1
* Prerequisite(s): AUT 1110, AUT 1120, AUT 1130, and AUT 1160
* Corequisite(s): AUT 123L Recommended
Studies electrical and fuel systems fundamentals found on passenger cars, light-trucks, and marine applications of theory, operation, and construction. Includes solid state electronic ignition systems. Teaches tune-up including diagnosis and troubleshooting. Computerized fuel injection found on gasoline and diesel engines will also be studied. Software fee of $10 applies. Lab access fee of $15 for computers applies.

AUT 123A
Engine Performance
2
For automotive majors and other interested community members. Studies electrical and fuel system fundamentals including theory, construction and principles of operation. Covers batteries, lighting, starting, and charging. Includes all solid state electronic and ignition systems. Teaches tune-up including diagnosis and troubleshooting. Studies computerized ignition and fuel injection. Includes lab experience.

AUT 123B
Engine Performance 2nd Half
2
Includes advanced instruction in engine performance, starting systems, charging systems, and indicator circuits. Discusses all mechanical and electronic parts of the vehicle relative to quality engine tune-up and diagnostic instruction. Includes lab experience.

AUT 123L
Engine Performance Lab
1
* Prerequisite(s) or Corequisite(s): AUT 1230
Provides a laboratory experience enhanced by following the Engine Performance ASE task list. Emphasizes demonstrations, observations and hands-on participation. Utilizes actual vehicle systems of major manufactures to supplement training. Tool room fee of $19 for equipment applies. Course Lab fee of $17 for materials applies.

AUT 1260
Tech Math for Mechanics
3
For students in Automotive, Collision Repair, and Diesel Mechanics technology majors. Covers principles of math as required by the industry. Studies pressures, measuring engine and horsepower output, hydraulics, torque, and electrical flow. Includes solving equations in percent, proportion, variation, formula rearrangement, function and graphs with right and oblique triangles. Successful completers should be able to solve problems on the job using technical and mathematical data.

AUT 201L
Automotive Service Practicum Engine Performance and Steering Suspension
2
* Prerequisite(s): AUT 1210, AUT 1230 with a grade of C- or better
Includes field type service work in an instructional setting. Emphasizes vehicle service needs which are most frequently required in modern commercial service centers. Requires the diagnosis and repair of computerized vehicle systems. Includes standards for quality and quantity of work produced. Studies parts procurement, estimates, repair orders, and customer relations. Follows ASE P2 Performance Tasks for Steering/Suspension and Engine Performance. Tool room fee of $19 for equipment applies. Course Lab fee of $17 for materials applies.

AUT 202L
Automotive Service Practicum Emission Controls and Chassis Electronics
2
* Prerequisite(s): AUT 1160, AUT 1230 with a grade of C- or better
Includes field type service work in an instructional setting. Emphasizes vehicle service needs which are most frequently required in modern commercial service centers. Requires the diagnosis and repair of computerized vehicle systems. Includes standards for quality and quantity of work produced. Studies parts procurement, estimates, repair orders, and customer relations. Follows ASE P2 Performance Tasks for Emission Control Systems and Chassis Electrical. Tool room fee of $19 for equipment applies. Course Lab fee of $17 for materials applies.

AUT 203L
Automotive Service Practicum Brake Systems and Transmission Controls
2
* Prerequisite(s): AUT 1110, AUT 1160, AUT 1220 with a grade of C- or better
Includes field type service work in an instructional setting. Emphasizes vehicle service needs which are most frequently required in modern commercial service centers. Requires the diagnosis and repair of computerized vehicle systems. Includes standards for quality and quantity of work produced. Studies parts procurement, estimates, repair orders, and customer relations. Follows ASE P2 Performance Tasks for Automatic Transmissions and Brake Systems including Anti-Lock and Traction Control. Tool room fee of $19 for equipment applies. Course Lab fee of $17 for materials applies.

AUT 204L
Automotive Service Practicum Fuel Management Systems and HVACR
2
* Prerequisite(s): AUT 1160, AUT 1230 with a grade of C- or better
Includes field type service work in an instructional setting. Emphasizes vehicle service needs which are most frequently required in modern commercial service centers. Requires the diagnosis and repair of computerized vehicle systems. Includes standards for quality and quantity of work produced. Studies parts procurement, estimates, repair orders, and customer relations. Follows ASE P2 Performance Tasks for Engine Performance and Heating, Ventilation and Air Conditioning Systems. Tool room fee of $19 for equipment applies. Course Lab fee of $17 for materials applies.

AUT 2110
Advanced Steering Suspension and Alignment
2
* Prerequisite(s): AUT 1210, AUT 1160 with a grade of C- or better
* Corequisite(s): AUT 201L Recommended
Discusses advanced theory of two-wheel and four-wheel alignment. Studies nomenclature, theory of operation and service procedures for mechanical, electronic, and electrical parts of automotive steering and suspension systems. Software fee of $10 applies. Lab access fee of $15 for computers applies.
AUT 211L Automotive Service Practicum Steering/Suspension/Alignment Lab
1
* Prerequisite(s): AUT 1210
* Corequisite(s): AUT 2110
Includes field type service work in an instructional setting. Emphasizes vehicle service needs which are most frequently required in modern commercial service centers. Requires the diagnosis and repair of computerized vehicle systems. Includes standards for quality and quantity of work produced. Studies parts procurement, estimates, repair orders, and customer relations. Follows ASE P2 Performance Tasks for Steering/Suspension.

AUT 2120 Advanced Engine Performance
2
* Prerequisite(s): AUT 1130, AUT 1230, AUT 1160 with a grade of C- or better
* Corequisite(s): AUT 202L Recommended
Includes advanced instruction in engine performance, indicator circuits and On-Board Diagnostics II (OBD-II). Discusses mechanical and electronic parts of the vehicle relative to quality engine tune-up and diagnostic instruction. Software fee of $10 applies. Lab access fee of $15 for computers applies.

AUT 212L Automotive Service Practicum Engine Performance Lab
1
* Prerequisite(s): AUT 1230
* Corequisite(s): AUT 2120
Includes field type service work in an instructional setting. Emphasizes vehicle service needs which are most frequently required in modern commercial service centers. Requires the diagnosis and repair of computerized vehicle systems. Includes standards for quality and quantity of work produced. Studies parts procurement, estimates, repair orders, and customer relations. Covers tasks related to engine performance.

AUT 2130 Advanced Emission Control Systems
2
* Prerequisite(s): AUT 1130, AUT 1230, AUT 1160 with a grade of C- or better
* Corequisite(s): AUT 202L Recommended
Studies emissions control systems on vehicles. Reviews county emissions certification requirements. Emphasizes the pre and post testing of the different emission systems and the control of the systems as they apply to different types of fuel systems. Software fee of $10 applies. Lab access fee of $15 for computers applies.

AUT 213L Automotive Service Practicum Emission Controls Lab
1
* Prerequisite(s): AUT 2130
* Corequisite(s): AUT 2130
Includes field type service work in an instructional setting. Emphasizes vehicle service needs which are most frequently required in modern commercial service centers. Requires the diagnosis and repair of computerized vehicle systems. Includes standards for quality and quantity of work produced. Studies parts procurement, estimates, repair orders, and customer relations. Follows ASE P2 Performance Tasks for Emission Control Systems.

AUT 2140 Chassis Electrical and Electronics Systems
2
* Prerequisite(s): AUT 1160, AUT 1170 with a grade of C- or better
* Corequisite(s): AUT 202L Recommended
Studies theory, diagnosis, and repair of chassis electrical and electronic systems. Includes the study of lighting systems, electronic dash circuits, inflatable restraint systems, electronic cruise control systems and other accessories found on vehicles.

AUT 214L Automotive Service Practicum Chassis Electrical and Electronics Lab
1
* Prerequisite(s): AUT 1160
* Corequisite(s): AUT 2140
Includes field type service work in an instructional setting. Emphasizes vehicle service needs which are most frequently required in modern commercial service centers. Requires the diagnosis and repair of computerized vehicle systems. Includes standards for quality and quantity of work produced. Studies parts procurement, estimates, repair orders, and customer relations. Follows ASE P2 Performance Tasks for Chassis Electrical.

AUT 2210 Advanced Braking and Control Systems
2
* Prerequisite(s): AUT 1110, AUT 1160 with a grade of C- or better
* Corequisite(s): AUT 221L Recommended
Covers diagnosis and repair of electronic controlled braking systems; including anti-lock brakes, traction control systems, stability control systems and other control systems found on modern vehicles. Software fee of $10 applies. Lab access fee of $15 for computers applies.

AUT 221L Automotive Service Practicum Brake Systems Lab
1
* Prerequisite(s): AUT 1110
* Corequisite(s): AUT 2210
Includes field type service work in an instructional setting. Emphasizes vehicle service needs which are most frequently required in modern commercial service centers. Requires the diagnosis and repair of computerized vehicle systems. Includes standards for quality and quantity of work produced. Studies parts procurement, estimates, repair orders, and customer relations. Follows ASE P2 Performance Tasks for Brake, Anti-Lock and Traction Control Systems.

AUT 2220 Automatic Transmissions and Electronic Controls
2
* Prerequisite(s): AUT 1160 with a grade of C- or better
* Corequisite(s): AUT 203L Recommended

AUT 222L Automotive Service Practicum Transmission Controls Lab
1
* Prerequisite(s): AUT 1220
* Corequisite(s): AUT 2220
Includes field type service work in an instructional setting. Emphasizes vehicle service needs which are most frequently required in modern commercial service centers. Requires the diagnosis and repair of computerized vehicle systems. Includes standards for quality and quantity of work produced. Studies parts procurement, estimates, repair orders, and customer relations. Follows ASE P2 Performance Tasks for Transmission Controls.
AUT 2240
Heating Ventilation Air Conditioning and Refrigeration Theory
2
* Prerequisite(s): AUT 1160 with a grade of C- or better
* Corequisite(s): AUT 204L Recommended

Offers an in-depth study of automotive heating, ventilation, air conditioning (A/C), and refrigeration systems. Includes theory of operation, diagnosis and repair of HVAC/R systems. Environmental safety issues are stressed including laws and regulations, CFC recovery and recycling, ozone depletion, and new, environmentally friendly systems. Computerized automatic temperature controlled systems are also covered. Stresses service, diagnosis and troubleshooting using electronic test equipment. Software fee of $10 applies. Lab access fee of $15 for computers applies.

AUT 224L
Automotive HVAC Lab
1
* Corequisite(s): AUT 2240

This course provides a laboratory experience for Heating, Ventilation, and Air Conditioning lecture (AUT 2240). Studies and provides experience with R12 and 134a refrigerants, environmental issues, retrofit assemblies, evacuation and charging AC systems, and problem solving of AC systems. Course Lab fee of $17 for materials applies.

AUT 2250
Electronic Diesel Fuel Management Systems
2
* Prerequisite(s): AUT 1160 with a grade of C- or better
* Corequisite(s): AUT 204L Recommended


AUT 281R
Cooperative Work Experience
1 to 8
* Corequisite(s): AUT 285R

Designed for Automotive Technology majors. Provides paid, on-the-job work experience in the student’s major. Work experience, the correlated class, and enrollment are coordinated by the Cooperative Coordinator. Includes student, employer, and coordinator evaluations, on-site work visits, written assignments, and oral presentations. Provides experience in writing and completing individualized work objectives that improve present work performance. May be repeated as desired for interest. May be graded credit/no credit.

AUT 285R
Cooperative Correlated Class
1
* Corequisite(s): AUT 281R

Designed for Automotive Technology majors. Identifies on-the-job problems and provides remediation of those problems through in-class discussion and study. Includes the study of identifying and maximizing service opportunities. Students register for this class with approval of the Coop coordinator. Included lecture, guest speakers, video tapes, role playing, case analysis, oral presentations, and written assignments. Completers should be better able to perform in their field of work or study. May be repeated as desired for interest.

AUT 299R
SkillsUSA
1

Designed for Automotive Technology majors. Supports and facilitates the goals and objectives of SkillsUSA. SkillsUSA is a pre-professional student organization that develops social awareness, civic, recreational, and social activities. Students may participate in local, state, and national contests. May be repeated as desired for interest.

Autism Studies (AUTS)

AUTS 250G
Understanding the Autism Spectrum
3
* Prerequisite(s): ENGL 1010 or ENGH 1005 (with C or higher) or instructor approval

Discusses autism beginning with the history of the diagnostic category and moving through contemporary issues of etiology, neurobiology, prevalence, assessment, treatment, education, policy, and community impact and inclusion. Emphasizes principles of interdisciplinary care, cultural competence, family centered approaches, and life course perspective.

AUTS 3810
Autism Across the Lifespan I Infants and Children
3
* Prerequisite(s): AUTS 250G and University Advanced Standing

Examines key issues related to infants and children who are diagnosed with an autism spectrum disorder and the impact on family and communities. Emphasizes principles of interdisciplinary care, cultural competence, family-centered approaches, and life course perspective.

AUTS 382G
Autism Across the Lifespan II Teens and Adults
3
* Prerequisite(s): University Advanced Standing and AUTS 250G

Examines key issues related to teens and adults diagnosed with an Autism Spectrum Disorder and the impact on family and communities. Emphasizes principles of interdisciplinary care, cultural competence, family-centered approaches, and life course perspective.

AUTS 3850
Autism Assessment and Treatment
3
* Prerequisite(s): AUTS 250G or University Advanced Standing


AUTS 4650
Autism and Applied Behavior Analysis
3
* Prerequisite(s): AUTS 250G or EDSP 340G and University Advanced Standing

Describes the scientific principles of applied behavior analysis and how they relate to autism intervention. Discusses principles of single case designs, antecedents, reinforcement, consequences, and behavior modification.
AVSC 1010 Survey of Aviation Science
3
Designed for all students interested in aviation careers. Includes a general knowledge of aviation, historical events, and aerospace studies/development opportunities. Covers aviation and aerospace terminology, how aircraft and spacecraft fly, research and development of future systems, government and industry roles in the growth of aviation. Provides entering students with a first year experience covering critical thinking, time and financial management and collaboration as well as aviation career prospects.

AVSC 1050 Introduction to Aviation Management
3
Discusses aviation industry structure, practices, and administrative career opportunities; emphasizes strategic decision making in aviation transportation, manufacturing, airport, and government administration, and provides an overview of various administrative methods, tools, and responsibilities. Provides a general knowledge of aviation administration career options and the role of administrators within the aviation industry. May be delivered online.

AVSC 1100 Ground I - Private
3
* Prerequisite(s): Departmental Approval
Introduces the entry-level student to the airplane as they prepare for flight training. Covers airplane ground and flight operations, take-off and landing, basic flight maneuvers, cross country methods and emergency procedures. Prepares students for the required FAA Private Pilot Airplane Practical Test. May be delivered online. Course fee of $18,727 for flight applies.

AVSC 1110 Flight I - Private
3
* Prerequisite(s): Department Approval
* Prerequisite(s) or Corequisite(s): AVSC 1100
Covers airplane ground and flight operations, take-off and landing, basic flight maneuvers, cross country methods and emergency procedures. Prepares students for the required FAA Private Pilot Airplane Practical Test. May be delivered online. Course fee of $18,727 for flight applies.

AVSC 1120 Introduction to Aircraft and Spacecraft Systems
3
Introduces the design, installation and operation of basic airframe and propulsion systems, and associated technology, found in light piston-powered, electric, hybrid-electric and turbine-powered fixed wing and rotary-wing aircraft. Explores emerging technologies associated with unmanned aircraft systems (UAS), autonomous large unmanned cargo aircraft (LUCA), advanced air mobility (AAM), and space vehicles that will be deployed and operated within the National Airspace System and within space.

AVSC 1130 Glider Rating
1
* Prerequisite(s): AVSC 1100
Prepares student to transition from powered to unpowered glider flight in preparation for the FAA Private Pilot Glider Rating. Includes ground and flight lessons covering glider towing, launching, powered gliders, thermals, weather, landing, mountain waves, regulations, and emergency procedures. Teaches aerodynamic theory associated with more efficient flight and aircraft control.

AVSC 1150 Ground II - Instrument I
1
* Prerequisite(s): AVSC 1100, AVSC 1110
Examines FAA regulations, meteorology, navigation, radio procedures, instrument departures, on route and approach procedures, the instrument airway, and airspace systems as well as aircraft systems operation. Introduces glass cockpit instrumentation. Covers basic flight instrument construction and operation. Prepares pilots for the required FAA Instrument Pilot Airplane Knowledge Test.

AVSC 1160 Seaplane Rating
1
* Prerequisite(s): AVSC 1100, AVSC 1110
Provides training to aid in the transition from single-engine land to single-engine sea. Covers airplane ground and flight operations, take-off and landing, basic flight maneuvers, cross country methods and emergency procedures. Prepares students for the required FAA Private Pilot Airplane Practical Test. May be delivered online. Course fee of $18,727 for flight applies.

AVSC 1230 Flight II - Instrument I
2
* Prerequisite(s): AVSC 1100, AVSC 1110 and Department Approval
Prepares students to meet FAA Instrument Airplane and Commercial Airplane Pilot cross-country requirements. Introduces extended cross-country flights in both day and night environments with consideration for passenger safety. Includes operational flight performance using all available navigational weather and airplane performance data. Requires proof of completion of cross country airplane pilot in command time. May be delivered online.

AVSC 1240 Ground II - Instrument
3
* Prerequisite(s): AVSC 1100, AVSC 1110 and Department Approval
Examines FAA regulations, meteorology, navigation, radio procedures, instrument departures, on route and approach procedures, the instrument airway, and airspace systems as well as aircraft systems operation. Introduces glass cockpit instrumentation. Covers basic flight instrument construction and operation. Prepares pilots for the required FAA Instrument Pilot Airplane Knowledge Test.
AVSC 1250
Flight II - Instrument II
3
* Prerequisite(s): Department Approval
Stresses attitude instrument flying techniques. Covers instrument departure and approach procedures and instrument en route and cross-country navigation techniques in actual or simulated weather conditions with reference solely to the flight instruments. Prepares students for the required FAA Instrument Airplane Practical Test. Course fee of $17,890 for flight applies.

AVSC 1260
21st Century Avionics and Instrumentation
1
* Prerequisite(s): AVSC 1100
Provides pilots with the knowledge and practical experience using new generation glass cockpit electronic instrumentation and radio navigation devices. Includes glass cockpit system knowledge, functions, safety, flight planning, crew concepts, and the use of GPS technology. Requires flight, flight training device, or computer based instruction and experience to meet FAA standards for transition to this technology. May be delivered online.

AVSC 1310
AMT Procedures and Practices A
5
For Aviation Maintenance Technician Apprentice students. Introduces students to the aviation maintenance environment. Studies common procedures and practices in the industry, the use of tools and measurement devices, and Federal Aviation Regulation related to technician certification and inspections. Includes maintenance forms and record keeping, and weight and balance publications.

AVSC 1320
AMT General Knowledge A
5
For Aviation Maintenance Technician Apprentice students. Introduces general processes used by the Aviation maintenance Technician. Introduces aircraft electrical principles including the devices and procedures used in analyzing aircraft electrical systems. Covers materials and processes used in aircraft maintenance. Develops basic science application skills for aircraft maintenance.

AVSC 1330
AMT Airframe Phase I B
5
* Prerequisite(s): AVSC 1310, AVSC 1320, Must complete all (a) level AMT apprentice courses with grade of C- or better
For Aviation Maintenance Technician Apprentice students. Introduces students to the basic maintenance and procedures involving the airframes of a variety of aircraft. Discusses composite technology, aircraft finishes, sheet metal, basic structures, welding, and other fasteners.

AVSC 1340
AMT Powerplant Phase I B
5
* Prerequisite(s): AVSC 1310, AVSC 1320, Must complete all (a) level AMT apprentice courses with grade of C- or better
For Aviation Maintenance Technician Apprentice Students. Introduces students to the basics of power plant installation, repair, and servicing. Focuses on the reciprocating engine used on certified aircraft. Covers radial engines, basic two- and four-stroke reciprocating engines, engine overhaul, starter and ignition systems, and troubleshooting procedures.

AVSC 1400
Survey of Unmanned Aircraft Systems
3
Introduces Unmanned Aircraft Systems (UAS) history and development, current and future industry and military application, methods for launch and recovery, purpose and use of data-links, operating personnel and mission planning and governmental oversight. May be delivered online.

AVSC 1410
Aeronautical Knowledge for Small Unmanned Aircraft Systems
3
Prepares students for the required FAA sUAS aeronautical knowledge test. Includes applicable regulations, airspace classification and operating requirements, effects of weather, loading and performance, communication and emergency procedures, physiological effects of drugs and alcohol, aeronautical decision-making and judgment and airport operations.

AVSC 2070
Communications for Aviation Professionals WE
3
* Prerequisite(s): ENGL 1010 or ENGH 1005
Teaches the skills necessary to effectively communicate with a variety of aviation stakeholders and professionals. Examines principles of written and verbal communication. Covers the planning, organizing and delivery of positive and negative messages. Teaches effective interpersonal and listening skills as well as techniques for adapting the message to the audience. Includes the effective development and delivery of computer-aided presentations. Explores the hazards and impacts of miscommunication on aviation safety.

AVSC 2090
Air Transport Economics
3
* Prerequisite(s): MAT 1030 or 1035, STAT 1040 or 1045, MATH 1050 or 1055, AVSC 2150
Teaches basic economic concepts as applicable to air transportation. Introduces foundational principles of free enterprise, supply and demand, private and social implications of profit maximization, market structure, resource markets, inflation, economic and industry cycles, inflation and economic growth. Introduces competitive advantage, air transport demand, modeling, pricing, revenue management and supply and route architecture.

AVSC 2110
Aviation Weather
3
Enables the aviation administrator to understand and appreciate the operational and strategic impacts of weather on the aviation industry. Teaches atmospheric composition and structure, climate and synoptic weather, aviation weather reports, forecasts and weather data sources. Requires students to apply these principles in a decision making capacity through weather tracking, planning and decision making activities.

AVSC 2120
Personal Finance for Aviation Professionals
3
* Prerequisite(s): AVSC 1050, AVSC 1100
Covers financial decision making with a view of financial choices/ alternatives and the impact or consequences of these choices during a student's collegiate and professional career. Includes real life scenarios designed around common challenges and issues. Requires students to create a proposed budget and reconcile expenditures monthly as the course progresses. Explores net worth statements, budgets, taxes, insurance alternatives, and life decisions applicable to finance. May be delivered online.

AVSC 2130
Aviation Safety
3
Presents an introduction to aviation safety. Covers agencies overseeing safety at the commercial and general aviation levels as well as the applicable regulations they develop and enforce. Explores general aviation and commercial aviation accident statistics and accident causation models. Discusses airline, airport, aircraft, and air traffic control safety issues. Explores the role of the aviation administrator as a safety advocate and responsible party in a variety of settings.

AVSC 2040
Survey of Forensic Science
3
* Prerequisite(s): ENGL 1010 or ENGH 1005
Covers forensic science principles and methods. Includes crime scene investigation, evidence collection, and analysis. Explores the role of the forensic scientist in criminal investigations.

AVSC 2121
Aviation Law
3
* Prerequisite(s): AVSC 1050, AVSC 1100
Studies the legal foundations of aviation and the role of the Federal Aviation Administration. Examines the law of the air, aviation regulations, and their impact on aviation safety and liability.
AVSC 2150
Air Transportation Management
3
Presents the management skills necessary to be a fixed base operator and entry-level manager for scheduled airlines in the national aviation system. Teaches management functions, marketing, financing, organization and administration, flight operations, maintenance, safety, and liability. Provides hands-on experience of management styles through evaluations and critiques of local airlines and airport facilities.

AVSC 2180
Managing Technology in Aviation
3
* Prerequisite(s): AVSC 2150
Introduces airline computer applications. Teaches database language and calculation skills in aviation operations data query, analytics, and reporting. Uses off-the-shelf software to synthesize raw data into actionable knowledge. Examines the art of data visualization design and presentation through reports, dashboards, and stories.

AVSC 2190
Introduction to Dispatch and Scheduling
3
* Prerequisite(s): AVSC 1010
Introduces airline and corporate flight department operations and flight dispatch procedures. Teaches effects of weather, air traffic control and maintenance on fleet logistics. Introduces responsibilities of dispatchers, routers, maintenance controllers, and general system operations. Covers pertinent crew and operational federal aviation regulations. Examines tools and practices of airline system control and corporate flight departments. Explores responsibilities and authority of dispatchers and schedulers.

AVSC 2200
Aviation Marketing
3
* Prerequisite(s): ENGL 1010 or ENGH 1005
Teaches principles of aviation marketing and promotional concepts. Covers planning and coordination, advertising and media as well as sales presentations. Explores aviation tradeshows, trade events, and networking as industry marketing tools. Teachers marketing research, financial planning, and transportation methods.

AVSC 2210
AMT Airframe Phase II C
5
* Prerequisite(s): AVSC 1330, AVSC 1340, Must complete all (b) level AMT apprentice courses with grade of C- or better
For Aviation Maintenance Technician Apprentice Students. Prepares students for intermediate level understanding of major airframe components and accompanying devices. Includes lessons on structure alignments, aircraft rigging, flight control balance, communications and navigation equipment, brake systems, anti-skid systems, and landing gear position indication.

AVSC 2220
AMT Airframe Phase III D
5
* Prerequisite(s): AVSC 2210, AVSC 2230, Must complete all (c) level AMT apprentice courses with grade of C- or better
For Aviation Maintenance Technician Apprentice Students. Final airframe class prepares students to take FAA AMT Airframe Examination. Discusses landing gear systems, hydraulics, fuel systems, pneumatics, fuel dumping, pressurization, environmental controls, and indicator systems. Includes examinations of example aircraft systems in operation.

AVSC 2230
AMT Powerplant Phase II C
5
* Prerequisite(s): AVSC 1330, AVSC 1340, Must complete all (b) level AMT apprentice courses with grade of C- or better
For Aviation Maintenance Technician Apprentice Students. Provides students with information and understanding of turbine engines, designs, systems and components. Covers engine installation, accessory devices, lubrication systems, fuel metering, and airworthiness inspections.

AVSC 2240
AMT Powerplant Phase III D
5
* Prerequisite(s): AVSC 2210, AVSC 2230, Must complete all (c) level AMT apprentice courses with grade of C- or better
For Aviation Maintenance Technician Apprentice Students. Provides intermediate level understanding of engine components, accessories, and their operating principles. Prepares students for the FAA AMT Power plant Knowledge Examination.

AVSC 2250
Aviation Business Statistics
3
* Prerequisite(s): MAT 1030 or 1035, MATH 1050 or 1055, or STAT 1040 or 1045
Presents an application of statistics in business and economics within the context of an aviation-related business. Topics include methods of collecting, analyzing, and presenting data, descriptive statistics, populations and samples, measures of central tendency and dispersion, elementary probability, binomial and normal distributions and their interrelationship, frequency distributions, averages, index numbers, probability, sampling, estimation, analysis of variance, time series, regression and correlation, and chi-square.

AVSC 2300
Ground IV - Commercial
3
* Prerequisite(s): AVSC 1250 and Department Approval
Covers privileges, responsibilities and the operational environment of a commercial pilot. Explores application of aeronautical knowledge and skills in simulated commercial operation situations. Develops judgment and decision-making skills. Studies aerodynamics, performance and limitations, weight and balance, aircraft systems, airworthiness, aeromedical factors, night and high altitude operations, weather hazards and reports, airport operations, flight planning, and decision making. Prepares students for the required FAA Commercial Pilot Airplane Knowledge Test.
AVSC 235R
Unusual Attitude Safety Training 1
* Prerequisite(s): AVSC 1250
Teaches pilots how to assess various flight situations and take the appropriate action to avoid or recover from any in-flight unusual attitude scenario, includes training not covered by commercial flight courses such as situations involving wake turbulence, wind shear, mountain waves and other wind flow patterns, as well as instrument or control system failure and pilot error may produce unusual atttitudes beyond those experienced in normal flight. Presented in three phases: for the experience level of the 1) Private Pilot Student, 2) Instrument Pilot Student. 3) Commercial Pilot Student and for the Certified Flight Instructor Student. Course enhances overall pilot skill and increases confidence in all flight conditions. May be repeated for a maximum of 2 credits toward graduation.

AVSC 2400
Ground Certified Flight Instructor 4
* Prerequisite(s): Department Approval
Provides the foundational knowledge and teaching skills necessary to become an authorized FAA airplane flight instructor. Teaches certification and training requirements for which the student will have instructional privileges. Develops organization and presentation skills required for instructional activity including the application of human behavior and learning principles during instructional activity. Emphasizes training of aviation students to specific standards of competence regardless of the specific instructional privileges carried by the flight instructor. Focuses on the teaching of critical emphasis areas as identified by the FAA. Prepares students for the required FAA Flight Instructor Airplane Knowledge Test and Fundamentals of Instruction Knowledge Test. May be delivered online.

AVSC 2410
Flight Certified Flight Instructor 1
* Prerequisite(s): Department Approval
Designed for advanced pilots preparing for the Flight Instructor rating. Trains students to discuss and teach while precisely performing maneuvers and maintaining proper operational control. Emphasizes the identification of common student errors and proper correction. Prepares students for the required FAA Flight Instructor Airplane Practical Test. May be delivered online.

AVSC 2420
Ground CFI Instrument 1
* Prerequisite(s): AVSC 2300, AVSC 2310
* Corequisite(s): AVSC 2430
Stresses in-depth study of gyroscopic and pressure instruments, attitude instrument flying techniques, IFR departure, en route, arrival and approach procedures, and the teaching of this to other pilots. Discusses Federal Aviation Regulations that apply to instrument flight instruction, flight logbook endorsements and entries, and other directives and publications that apply to airplane instrument flight. Studies the correct procedures for teaching and the analyzing of student errors while performing the required instrument flight maneuvers. Prepares students for the required FAA Flight Instructor Instrument Airplane Knowledge Test. May be delivered online.

AVSC 2430
Flight CFI Instrument 1
* Prerequisite(s): AVSC 2300, AVSC 2310
* Corequisite(s): AVSC 2420
Designed for instructor pilots seeking the CFI Airplane Instrument rating. Covers all required instrument flying maneuvers from the right seat of the instrument training airplane such as instrument departures, en route navigation, and instrument approach to landings. Prepares students for the required FAA Flight Instructor Instrument Airplane Practical Test. May be delivered online.

AVSC 2440
Ground III - Multi Engine 1
* Prerequisite(s): AVSC 1110 and Department Approval

AVSC 2450
Flight III - Multi Engine 1
* Prerequisite(s): AVSC 1110 and Department Approval
Prepares students for flight in complex multi-engine airplanes. Stresses normal and emergency flight procedures and skills demonstrated and practiced for all phases of flight. Includes single-engine operation of a multi-engine airplane in varying flight environments and situations. Discusses complex systems operation as well as instrument flight procedures. Prepares the student for the required FAA Multi-engine Airplane Practical Test. Course fee of $11,209 for flight applies.

AVSC 2500
Ground Multi Engine Instructor 1
* Prerequisite(s): AVSC 2300, AVSC 2310
* Corequisite(s): AVSC 2510
Presents specific teaching techniques and skills necessary to certify as a flight instructor with a multi-engine airplane rating. Includes a review of the multi-engine airplane pilot certification requirements. Stresses the unique instructional and safety responsibilities with students in multi-engine airplanes. Prepares students for the oral exam portion of the FAA Multi-Engine Airplane Instructor Practical Test.

AVSC 2510
Flight Multi Engine Instructor 1
* Prerequisite(s): AVSC 2300, AVSC 2310
* Corequisite(s): AVSC 2500
Prepares students for various maneuvers and operations necessary to instruct pilots for the FAA Multi-engine Airplane Practical Test. Teaches normal and emergency flight operations and procedures in all the various flight environments and regimes. Teaches the knowledge and skill necessary to operate a multi-engine airplane safely, while instructing multi-engine airplane pilots. Prepares students for the required FAA Multi-engine Airplane Instructor Practical Test. May be delivered online.

AVSC 2710
Aviation Marketing 3
* Prerequisite(s): AVSC 2150
Teaches principles of aviation marketing, market research and promotional concepts. Covers planning and coordination, advertising, and media as well as sales presentations. Explores aviation trade shows trade events, and networking as industry marketing tools. Covers the history of customer service in the aviation industry. Introduces customer service principles applicable to both general and commercial aviation. Analyzes customer rights and carrier responsibilities and explores diffusion of confrontational customers. Analyzes airline and corporate cultures and resulting effects on employees and customers.
Course Descriptions

**AVSC 2750**
Unmanned Aircraft Systems  
3  
* Prerequisite(s): AVSC 2150
Introduces unmanned aircraft systems and applications. Examines the history and development of unmanned aircraft, their systems, technology, training methods, and implementation. Examines the current and future roles these aircraft will take in society and the implications surrounding their increased usage. Explores security, privacy and safety as they relate to the utilization of unmanned aircraft systems in military, law enforcement and civilian applications. Examines challenges and opportunities related to civilian utilization. May be delivered online.

**AVSC 276R**
Current Topics in Aviation  
1 to 3  
Selected topics in Aviation Science that will vary from semester to semester. May be repeated with different topic areas for a maximum of six credit hours toward graduation.

**AVSC 281R**
Cooperative Work Experience  
1 to 8

**AVSC 285R**
Cooperative Correlated Class  
1  
* Corequisite(s): AVSC 281R
Designed to enable students with career aspirations in aviation related fields to begin career planning. Enhances a student's knowledge, personal development, professional development and professional preparation by integrating academic study with practical experience and resume preparation. May be repeated for a maximum of 2 credits toward graduation.

**AVSC 2860**
SkillsUSA  
1  
SkillsUSA includes leadership training, parliamentary procedure, job interview skills, prepared speaking, extemporaneous speaking, and organizational skills. Upon completion, the student should understand the SkillsUSA organization and how it helps to build leadership skills.

**AVSC 3010**
Flight Environment  
3  
* Prerequisite(s): AVSC 1240 and University Advanced Standing
Teaches interpretation, selection, and compilation of appropriate weather data. Examines METAR, TAF, PIREPS, AIRMET’s, SIGMET’s and other sources of applicable weather information. Uses sample reports, data, and charts. Includes class and group discussion, lecture, practical example, and case studies. May be delivered online.

**AVSC 3020**
Aviation Insurance and Risk Management  
3  
* Prerequisite(s): AVSC 2130 and University Advanced Standing
Explores the complexity of aviation risk management from flight operations and aircraft maintenance perspectives. Examines industry insurance practices and standards, including the development of risk management procedures to meet both government and insurance requirements. Analyzes basic underwriting procedures and requirements. Presents basic principles of hazardous materials handling in aviation.

**AVSC 3030**
Air Traffic Control I  
3  
* Prerequisite(s): AVSC 1100 and University Advanced Standing
Teaches tower, approach, and center techniques and terminology. Covers radar and non-radar control environments and the pilot's responsibility in each. Explains effective use of the Air Traffic Control System.

**AVSC 3040**
Air Traffic Control II  
3  
* Prerequisite(s): AVSC 3030 and University Advanced Standing
Covers advanced air traffic management concepts, weather problems, communications procedures, and technical control skills. Provides simulated air traffic control situations and crisis management skills. Discusses terminal en route procedures and Federal Aviation Regulations. May be delivered online.

**AVSC 3060**
Airline Management  
3  
* Prerequisite(s): AVSC 2150 and University Advanced Standing
Prepares student for management level duties at air carriers. Examines airline operational considerations, regulation, financing, accounting methods, marketing, customer service, profitability, and labor relations. Discusses how some airlines succeed and others fail.

**AVSC 3070**
Aviation Cargo Operations  
3  
* Prerequisite(s): AVSC 2150 and University Advanced Standing
Studies air cargo history and industry development. Teaches air cargo scheduling and supply chain administration. Explores aircraft options and conversions and airport and logistical considerations. Discusses shipping and air cargo regulations including hazardous material (hazmat) and security issues. Explores domestic and international air cargo considerations.

**AVSC 3090**
Airline and Dispatch Operations  
3  
Prerequisite(s): AVSC 2150, AVSC 2110 and University Advanced Standing
Introduces airline and corporate flight department operations and flight dispatch procedures. Teaches effects of weather, air traffic control and maintenance on fleet logistics. Introduces responsibilities of dispatchers, routers, maintenance controllers, and general system operations. Covers pertinent crew and operational federal aviation regulations. Examines tools and practices of airline system control and corporate flight departments. Explores responsibilities and authority of dispatchers and schedulers.

**AVSC 3100**
Corporate Aviation Management  
3  
* Prerequisite(s): AVSC 2150 and University Advanced Standing
Introduces basic principles of corporate flight department management. Discusses regulatory requirements in corporate aviation, acquisition procedures, insurance requirements, and pilot certification programs. Explores fractional ownership programs and management.

**AVSC 3110**
Aviation Security  
3  
* Prerequisite(s): AVSC 2150, and University Advanced Standing
Presents advanced security issues related to aviation including passenger screening, profiling, hijacking, bomb threats and passenger disruptions. Covers historical incidents and studies a variety of responses to threats from various countries. Discusses the role of the Department of Homeland Security and the Transportation Security Administration. Covers the role of pilots and other flight crew in security, including the Federal Flight Deck Officers Program. Includes a discussion of regulatory issues and laws established since the 9/11 attacks. May be delivered online.

**AVSC 3120**
Airport Management  
3  
* Prerequisite(s): AVSC 2150 and University Advanced Standing
Explores airport management at both small and large airports. Emphasizes basic requirements and attributes of successful airport managers. Course includes discussion of local and state airport finance and regulatory issues. Discusses pertinent Federal Aviation Regulations and security issues.
AVSC 3140
Fixed Base Operations Management
3
* Prerequisite(s): AVSC 2150 and University Advanced Standing
Prepares students for employment and management at a fixed base operation and related general aviation management. Covers the organization, profit, maintenance, and safety systems concerning fixed base operators. Presents pertinent Federal Aviation Regulations, facility management, and advertising issues.

AVSC 3150
Principles of Aviation Management
3
* Prerequisite(s): AVSC 2070, AVSC 2150 and University Advanced Standing
Teaches principles of aviation management including the management process, decision-making, and organizational structure. Covers leadership skills including communication, fostering team work, conflict resolution, and human resource management. Analyzes the importance of ethics and social responsibility as well as developing and crafting executive strategies. Studies organizational culture and effective management of innovation and change. May be delivered online.

AVSC 3170
Advanced Air Mobility Technology and Operations
3
* Prerequisite(s): University Advanced Standing
Surveys critical topics associated with the design, manufacture, operation and support of a new field of air transportation identified as advanced air mobility. Includes urban air mobility (UAM), personal air transportation vehicles, and autonomous UAS. Analyzes how these new air vehicles will change the landscape of aerospace, how we travel, technical skills required, and career paths necessary to support them.

AVSC 3200
Flight Physiology
3
* Prerequisite(s): AVSC 1240 and University Advanced Standing
For pilots with a career goal in commercial Aviation. Teaches physiological and psychological factors that affect pilot performance. Studies issues such as human error, fatigue, fitness, attitudes, training devices, controls, cabin space, and human payload. Includes lecture, demonstration, experiments, group projects, class discussion, and possible guest lecturers.

AVSC 3210
Aircraft Incident and Emergency Management
3
* Prerequisite(s): AVSC 2130 and University Advanced Standing
Teaches how to develop a pre-accident plan addressing the issues of chain and command responsibility, initial response to safety and security issues, and the coordination of human and material resources for public safety. Emphasizes post crash/aircraft incident preservation of forensic evidence. May be delivered online.

AVSC 3220
Aircraft Accident Investigation
3
* Prerequisite(s): AVSC 2130 and University Advanced Standing
Explores the fundamental requirements of aircraft mishap and accident investigation. Covers the initial gathering and preservation of evidence at the crash site, including photographic and videographic documentation, assessing environmental factors, human factor considerations, aircraft maintenance status, and air traffic control considerations.

AVSC 3230
Accident Witness Interviewing
3
* Prerequisite(s): (AVSC 3210 or AVSC 3220) and University Advanced Standing
Teaches the currently recommended techniques for conducting an accident witness interview and common mistakes. Presents methods of evaluating and analysis of interview information. Case studies and role playing will be used in classroom exercises.

AVSC 3240
Aviation Accident Reporting
3
* Prerequisite(s): (AVSC 3210 or AVSC 3220), (ENGL 1010 or ENGH 1005), and University Advanced Standing
Teaches the student a working knowledge of preparing a complete aircraft mishap/accident report that includes the factual information, analysis, and conclusions, including probable causes, and aviation safety recommendations. Involves turning accident investigation data into an accident report.

AVSC 3300
Jet Transport Systems
3
* Prerequisite(s): AVSC 1240 and University Advanced Standing
Provides training on turbine driven engines, thrust vectoring, pneumatics, electrical, hydraulic, and auxiliary systems. Includes subjects such as pressurization, de-ice and anti-ice, environmental, and warning systems. Utilizes schematic drawings, computer based trainers, and various jet operating manuals. Includes lecture, class discussion, demonstrations, group practice, and possible guest lecturers.

AVSC 3310
Aviation Logistics Management
3
* Prerequisite(s): AVSC 2150, AVSC 3150, and University Advanced Standing
Examines functional areas of supply, maintenance, transportation and services at operational, strategic and tactical levels. Covers facilities, manpower, labor relations, financial and system management, contract administration, analytical techniques and decision making. Uses a variety of case studies and examples of various transportation companies, airlines, and support groups. May be delivered online.

AVSC 3320
Aviation Managerial Accounting
3
* Prerequisite(s): AVSC 2150 and University Advanced Standing
Provides aviation administration students with knowledge of financial, managerial, and basic cost accounting concepts and applications. Introduces basic accounting methods, accounting information systems and the utilization of accounting information in the decision making process. Uses aviation industry case studies and examples. May be delivered online.

AVSC 3350
Aviation Labor and Human Resource
3
* Prerequisite(s): AVSC 2150, AVSC 3150, and University Advanced Standing
Focuses on effective management of human resources in the unique environment of the aviation industry. Teaches planning, recruitment, selection, training, development, labor relations, employee benefits and compensation, employee legal issues, termination and unemployment, and applicable state and federal regulations. May be delivered online.

AVSC 3400
International Flight Operations
3
* Prerequisite(s): AVSC 1240 and University Advanced Standing
Provides an overview of international flight operations including advanced air navigation systems. Explores navigation equipment and aids utilized in international flight operations. Teaches the operation of the "Glass Cockpit" flight data center. Utilizes simulation for operation of a glass cockpit equipped aircraft.
AVSC 3530
Flight Aerodynamics 3

Teaches the aerodynamics involved in commercial aircraft. Includes aircraft turning and accelerated climb performance, takeoff velocity, load factors, hypersonic flight, and laminar flow airfoils. Includes demonstration, examples, experiments, and class discussion. May be delivered online.

AVSC 3600
Multi-piloted Operations 3

* Prerequisite(s): AVSC 1100, AVSC 2070 and University Advanced Standing

Explores concepts of Crew Resource Management (CRM), Threat and Error Management (TEM), and Advanced Qualification Program (AQP) concepts. Covers crew coordination, communication, flight discipline, pilot flying and pilot monitoring protocols in multi-piloted environments.

AVSC 3740
Advanced Methods in Aviation Investigation 3

* Prerequisite(s): AVSC 3220 and University Advanced Standing

Teaches current scientific techniques for the analysis of aircraft materials, components, performance and design. Considers aircraft crashworthiness. Discusses the process of establishing facts from analysis and of the findings of an aircraft investigation and probable vs. proximate cause.

AVSC 4020
Applied Aviation Finance 3

* Prerequisite(s): AVSC 3320 and University Advanced Standing

Examines financial management in the aviation corporate and public sectors and the role of financial markets and institutions. Introduces finance terminology and techniques. Discusses time value of money, fundamentals of security valuation, capital asset pricing model and capital budgeting. Introduces weighted average cost of capital and contrasts debt policy and governance in the public and private aviation sectors.

AVSC 410G
Global Ethical and Professional Issues in Aviation 3

* Prerequisite(s): AVSC 2150, PHIL 2050, and University Advanced Standing

Designed for aviation managers and pilots to develop a global perspective and understanding of key intercultural issues facing aviation. Studies the role of multi-culturalism and globalization, especially where these issues impact safety and the business environment. Includes a study of aviation regulation and scenario-based problem solving skills.

AVSC 4160
Aviation Law WE 3

* Prerequisite(s): AVSC 2150, Senior Standing and University Advanced Standing.

Introduces the student to the United States Constitution plus derivation and application of international, federal, state and local laws as applied to aviation. Covers administrative, civil and criminal law including torts, principles of liability, contracts, sales, commercial transactions, the environment, labor law and Federal Aviation regulations.

AVSC 4210
Flight: Turbine Transition 1

* Prerequisite(s): AVSC 2300, AVSC 2310, and University Advanced Standing

Covers the required training experience in preparation for an FAA airplane type rating practical exam. Includes start up, taxi, take-off, en-route, approach, landing, shutdown, and emergency procedures. Requires individualized instruction in a cockpit procedures trainer, simulator or aircraft. Proof of earned airplane type rating is required.

AVSC 4300
Ground Airline Transport Pilot Aircraft Dispatcher 3

* Prerequisite(s): AVSC 2110 and University Advanced Standing

Discusses aircraft aerodynamics, airspace and airports, air traffic control, aviation weather, and aero-medical factors and applicable NTSB and FAA regulations. Analyzes the aspects of decision making and professionalism in aviation. Prepares students for the required FAA Airline Transport Pilot Airplane 121 (ATP); FAA Airline Transport Pilot Airplane (135); or Aircraft Dispatcher (ADX) Knowledge Tests.

AVSC 4310
Flight Airline Transport Pilot 1

* Prerequisite(s): AVSC 2300, AVSC 2310, and University Advanced Standing

Focuses on the areas necessary to pass an Airline Transport Pilot Airplane Practical Test. Covers pre-flight, takeoff and departure, in flight maneuvers, instrument procedures, approaches and landings, normal and abnormal procedures, emergency procedures and postflight procedures. Prepares students for the required FAA Airline Transport Pilot Airplane Practical Test.

AVSC 4500
Aerospace Aftermarket Support Services 3

* Prerequisite(s): University Advanced Standing

Explores organizational structures, geographical location selection, staffing, service delivery, and infrastructure requirements of an effective aftermarket product support program associated with aerospace vehicles. Explores existing support concepts to enable the student to design and plan an integrated and deployable product support organization. Emphasizes key elements of customer relationship management. Includes studies for both Original Equipment Manufacture (OEM) and third-party service providers.

AVSC 4550
Aerospace Vehicle Certification-Reliability-Maintainability Systems 3

* Prerequisite(s): University Advanced Standing

Explores the standards, regulations, infrastructure, and issues involving the certification, reliability, maintainability, risk management, and safety of aerospace vehicles through their life cycle. Studies the aerospace sectors of civil, defense, unmanned, and space-based systems. Investigates global training and certification standards of maintenance engineers and technicians.

AVSC 4700
Aviation Professional Seminars 3

* Prerequisite(s): Senior Standing and University Advanced Standing

Informs aviation students on personal and career development through guest lectures and industry seminars. Discusses career opportunities to develop and promote career success.

AVSC 4710
Aviation Career Preparation 1

* Prerequisite(s): Senior Standing and University Advanced Standing

Prepares students for the rigors of an aviation interview by reviewing important areas including Federal Aviation Regulations, aviation specific discipline knowledge and interpersonal skills necessary to successfully obtain a position in the aviation industry. Includes specific resume, background search, and interview preparation procedures.

AVSC 475R
Current Topics in Aviation 1 to 3

* Prerequisite(s): AVSC 1010 and University Advanced Standing

Presents selected topics in Aviation Sciences and will vary each semester. Requires a special project related to the area of study. May be repeated with different topic areas for a maximum of 6 credits toward graduation.
AVSC 4800 Professional Pilot Capstone
3
* Prerequisite(s): AVSC 3300, 3600 and University Advanced Standing

Teaches systems, operations and performance limitations of the CRJ. Emphasizes operating practices, along with systems indoctrination, and procedures training. Includes systems and operations common to most turbine and transport category aircraft. Provides insight into the rigors of studying for ground school systems class. Utilizes lecture, demonstration, and cockpit procedure trainers. Student who complete the course should be prepared to pass the applicable written exam. May be delivered online. Software fee of $100 applies

AVSC 4805 Canadair Regional Jet Orientation
1
* Prerequisite(s) or Corequisite(s): AVSC 4800

Introduces Canadair Regional Jet aircraft (CRJ) procedures through hands on application in the CRJ flight simulation training device. Provides simulated experience as a pilot in normal, abnormal, and emergency operations. Includes scenario based training in the CRJ200 flight management system (FMS) and other essential systems. Emphasizes crew resource management (CRM) skills in transport category aircraft.

AVSC 481R Cooperative Work Experience
1 to 8
* Corequisite(s): AVSC 485R

For upper division Aviation majors. A current job in an aviation related field required prior to registering for this course. Course content is individualized, with students setting objectives in consultation with their faculty coordinator and their on-the-job supervisor. Credit is determined by the number of hours a student works during the semester. (One credit for each five hours of work per week.) May be repeated for a maximum of 8 credits toward graduation. May be graded credit/no credit.

AVSC 485R Cooperative Related Class
1
* Prerequisite(s): Current job in an aviation related field and University Advanced Standing
* Corequisite(s): AVSC 481R

For upper division Aviation Science majors. Designed to enable students with career aspirations in aviation related fields to begin career planning. Enhances a student's knowledge, personal development, professional development and professional preparation by integrating academic study with practical experience and resume preparation. May be repeated for a maximum of 2 credits toward graduation.

AVSC 4900 Strategic Aviation Management Capstone
3
* Prerequisite(s): AVSC 3150, Senior standing, and University Advanced Standing
* Prerequisite(s) or Corequisite(s): AVSC 4020

Provides aviation administration students with the opportunity to practice and apply their cumulative knowledge acquired over the entire course of study. Teaches the components of formulating a strategic plan, implementing and controlling its execution, and evaluating its success. Applies principles of accounting, finance, economics, labor, logistics, operations, research and strategy development through simulation and aviation case studies.

AVSC 491R Undergraduate Research Project
3 to 6
* Prerequisite(s): AVSC 3200, AVSC 3600, ENGL 2010, Matriculation into Bachelor's Degree, and University Advanced Standing

Combines and integrates concepts, methodologies, and skills developed in previous AVSC course work through the completion of a comprehensive project. Students will develop their own project and portfolio in consultation with a faculty advisor. A list of detailed guidelines for the project is available from the Aviation Science Department. May be repeated three times for a maximum of 6 credits.

AVSC 4950 Aerospace Technology Management Capstone Project WE
3
* Prerequisite(s): AVSC 4500, AVSC 4550, and University Advanced Standing.

Assesses significant evidence of learning within the discipline studied through a culminating project. Documents evidence of achievement, experience and competencies for current and prospective employers to aid in job placement or promotion.

Behavioral Science (BESC)

BESC 1000 Behavioral Science Forum
2
For students interested in exploring a Behavioral Science major. Offers an overview of curriculum, major requirements, faculty and their specialties, study and writing helps and guidelines, campus resources and career possibilities. Utilizes lectures, guest speakers, field trips, and application-oriented activities.

BESC 107G Multicultural Societies
3
* Prerequisite(s): PSY 3110 or declared major in Family Science and (admission into BSW program or declared major in Behavioral Science, Family Science, or Psychology) and (ANTH 101G, FAMS 240G, PSY 1010, SOC 1010, or SW 1010) and University Advanced Standing

Examines societies and cultures within the kinships, beliefs, values and political backgrounds related to differing ethnic groups. Provides a forum for constructive interaction among people of differing economic, social, racial, ethnic and religious backgrounds.

BESC 295R Beginning Research Experience
1 to 3
* Prerequisite(s): Instructor approval; BESC department major

Provides a mentored experience to assist on a faculty member's research project. Begin to explore academic literature to investigate topics of interest. Requires individual initiative and responsibility. Includes limited formal instruction and faculty supervision. Includes literature searches, materials creation, data collection, or other options as approved by the instructor. May be repeated for a maximum of six credits toward graduation. May be graded Credit/No Credit.

BESC 3020 Research Methods for the Behavioral Sciences
3
* Prerequisite(s): PSY 3110 or declared major in Family Science and (admission into BSW program or declared major in Behavioral Science, Family Science, or Psychology) and (ANTH 101G, FAMS 240G, PSY 1010, SOC 1010, or SW 1010) and University Advanced Standing

Surveys the most common research designs in the social sciences. Includes true experiments, quasi-experiments, correlational designs, survey research, single case, and the philosophy of qualitative methods. Includes the design of a study, original data collection, data analysis, presentation of results. May be delivered hybrid and/or online.

BESC 3100 Career and Graduate School Preparation for Behavioral Science Majors
3
* Prerequisite(s): (ANTH 101G or FAMS 240G or PSY 1010 or SOC 1010 or SW 1010) and (ENGL 2010 with a C+ or higher) and University Advanced Standing

Emphasizes the development of skills necessary to successfully apply for employment and/or graduate school. Includes resume writing, cover letters and basic interview skills, preparation of acceptable application packages, and learning how to network with school and community resources to find employment and/or graduate school opportunities.
**Course Descriptions**

**BESC 3420** (Cross-listed with: COMM 3420)  
Communication and Conflict  
3  
* Prerequisite(s): (COMM 3410 or COMM 2110) and University Advanced Standing  
Studies contemporary theories of conflict and communication. Analyzes the roles of culture, gender, personal, and organizational ethics in conflicts and disputes. Covers the nature of conflict and teaches methods of negotiation, mediation, and conflict resolution with an emphasis on collaborative problem-solving. Canvas Course Mats $45/McGraw applies.

**BESC 3820**  
Women/War/Peacebuilding  
3  
* Prerequisite(s): (PSY 1010 or SOC 1010 or ANTH 101G) and (ENGL 2010 with a C+ grade or higher) and University Advanced Standing  
Examines the gendered foundations and dynamics of war (and ethno-political violence) and peace. Explores consequences to women and their roles in militarism and transformational justice and peacebuilding. Emphasizes an analysis of gender within the framework of the behavioral sciences.

**BESC 4030**  
Introduction to Practice Evaluation and Grant Writing  
3  
* Prerequisite(s): (ENGL 2010 with a C+ grade or higher), PSY 3110, BESC 3020, and University Advanced Standing  
Provides practical guidance for conducting an evaluation study from its inception, through the planning stage, to research design, data collection, data analysis and the reporting, dissemination, and application of conclusions.

**BESC 4040**  
Applied Behavioral Science Research  
3  
* Prerequisite(s): (ENGL 2010 with a C+ grade), PSY 3110, BESC 3020, and University Advanced Standing  
Introduces psychological theory, methods, and knowledge to actively analyze and engage problems facing a variety of clients. Discusses a variety of organizations, including businesses, government, religion, social science, health care, criminal justice, and others. Utilizes psychological tools to identify, investigate, and actively seek viable solutions to issues that can be applied by organizations to achieve greater success. Requires students to develop, carry out, and professionally present an original research project. Lab access fee of $13 applies.

**BESC 4050**  
Clinical Research  
3  
* Prerequisite(s): ENGL 2010 with a C+ grade or higher, PSY 3110, BESC 3020, and University Advanced Standing  
Introduces students to the field of clinical research. Integrates traditional psychological research methods and the area of clinical practice. Uses the scientist-practitioner model to demonstrate common research methodologies and examine clinical outcomes. Applies quantitative and qualitative methods in a clinical setting. Focuses on determining the effectiveness of therapeutic process and outcome using research.

**BESC 4510**  
Academic and Career Advising  
3  
* Prerequisite(s): (ENGL 2010 with a C+ or higher) and University Advanced Standing  
Provides students with an understanding of the field of academic/career advising and what it means to be a scholar and practitioner within the field. Engages in scholarly study of academic advising literature, discussion of advising theory and practice, observation of academic advising sessions, and interviews with advisors. Provides knowledge of advising theory and practice, an understanding of student development theory, and an increase in the knowledge and skills needed to advise students effectively.

**BESC 481R**  
Senior Internship  
1 to 8  
* Prerequisite(s): PSY 3110, BESC 3020, (ENGL 2010 with a C+ grade or higher) and University Advanced Standing  
Provides practical experience in a governmental, corporate, or private agency apart from their regular employment. Provides practical and research experience over the course of the 15-week semester. Supervised by agency representative. May be repeated for a maximum of 8 credits toward graduation. May be graded credit/no credit.

**BESC 485R**  
Internship Seminar  
1  
* Prerequisite(s): (ENGL 2010 with a C+ grade or higher), PSY 3110, BESC 3020, and University Advanced Standing  
* Corequisite(s): BESC 481R  
Provides integration of classroom learning with learning that takes place in an on-site internship. To be taken concurrently with BESC 481R, Senior Internship. Repeatable for a maximum of 8 credits toward graduation.

**BESC 495R**  
Advanced Research Experience  
1 to 3  
* Prerequisite(s): (ANTH 101G or FAMS 1010 or PSY 1010 or SOC 1010 or SW 1010) with a C grade or higher; ENGL 2010 with C+ grade or higher; Instructor approval; BESC department major; University Advanced Standing  
Provides a mentored experience to significantly assist on a faculty member's research project or carry out an independent research project of the student's design under faculty mentorship. Requires individual initiative and responsibility. Includes limited formal instruction. Includes literature searches, completion of the IRB application process, materials creation, data collection, data analysis, writing a publishable paper, preparing a poster, preparing an oral presentation, or other options as approved by the instructor. May be repeated for a maximum of nine credits toward graduation. May be graded credit/no credit.

**Biology (BIOL)**

**BIOL 1010**  
General Biology  
3  
Introduces major themes and concepts of biology including cell and molecular biology, genetics, diversity, evolution, and ecology. Provides students with necessary information and skills to critically evaluate what they hear, read, and see in the living world; communicate clearly; and apply methods to interpret data for making informed decisions concerning the role of biology in a world of which they are a part. May be delivered online.

**BIOL 1011**  
Introduction to Bioinformatics  
3  
Covers fundamental topics of bioinformatics including bioinformatics databases, sequence and structure alignment, and protein structure prediction. Uses current examples to introduce an overview of methodologies and applications sufficient to introduce students to the field of bioinformatics.

**BIOL 1015**  
General Biology Laboratory  
1  
* Prerequisite(s): BIOL 1010  
Covers introductory topics in general biology. Complements the student's experience in the General Biology 1010 course with emphasis on the application of the scientific method. Includes actual student experiences with living organisms, use of the microscope, and an introduction to techniques used in the study of life. Course lab fee of $13 for supplies applies.
BIOL 101H General Biology 3
Introduces major themes and concepts of biology including cell and molecular biology, genetics, diversity, evolution, and ecology. Provides students with necessary information and skills to critically evaluate what they hear, read, and see in the living world; communicate clearly; and apply methods to interpret data for making informed decisions concerning the role of biology in a world of which they are a part. Requires a term paper, project, or presentation.

BIOL 1070 Heredity 3
* Prerequisite(s): BIOL 1010 is strongly recommended
Introduces genetics for non-majors. Addresses patterns of inheritance from generation to generation (with an emphasis on human heredity), DNA structure and function as well as other aspects of molecular genetics and reproductive technologies.

BIOL 1200 (Cross-listed with: GEO 1020) Prehistoric Life 3
* Prerequisite(s): BIOL 1010 or GEO 1010 recommended
Studies prehistoric life. Uses the concepts of biology and physical science. Studies major groups of ancient animals and plants as found in the rock record. Includes aspects and fundamental concepts of biology, ecology, and geology.

BIOL 1500 (Cross-listed with: ANTH 1020) Biological Anthropology 3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and (ANTH 101G or BIOL 1010)
For students with special interests in Anthropology or the Life Sciences. Studies fossils and living primates, primate biology and behavior. Surveys humanoid fossils. Investigates human evolution and variations of basic biology as it pertains to human development. Stresses the importance of the distribution and diversity of mankind.

BIOL 1610 College Biology I 4
* Prerequisite(s): ACT (or equivalent) composite score of 21+, or completion of ENGH 1005 or ENGL1010 (or higher) with a minimum grade of C-
* Prerequisite(s) or Corequisite(s): BIOL 1615
Gives a broad exposure to many aspects of the life sciences. Covers topics of biochemistry, energetics, cell structure and function, genetics, and evolution. BIOL 1615 is recommended, but not required for pre-nursing or pre-dental hygiene majors.

BIOL 1615 College Biology I Laboratory 1
* Corequisite(s): BIOL 1610
Laboratory course to accompany BIOL 1610. Topics covered include scientific method, biomolecules, cell structure and function, cellular reproduction, Mendelian and molecular genetics, DNA technology, and evolution. Course Lab fee of $30 applies.

BIOL 1620 College Biology II 3
* Prerequisite(s): BIOL 1610 and BIOL 1615 with a C- or higher in each.
* Corequisite(s): BIOL 1625
Provides the second semester material in the two semester introductory course designed for biology majors. Covers the evolution of life, the relationships between major taxa, anatomy and physiology of these major taxa, and interactions between living organisms and their environments. Discusses major current issues in the biological field.

BIOL 1625 College Biology II Laboratory 1
* Corequisite(s): BIOL 1620
Laboratory course to accompany BIOL 1620. Topics covered include animal biology and diversity and plant biology and diversity. Course Lab fee of $30 for lab, transportation applies.

BIOL 202R (Cross-listed with: GEO 202R) Science Excursion 1
For students interested in the natural world. Explores a wide variety of topics in science, including geology, botany, astronomy, zoology, ecology, and archaeology. Consists of a minimum of a four-day field trip. Participants should gain an increased understanding of several fields of scientific study. May be repeated as many times as desired for interest, however a maximum of 3 credits may count toward graduation.

BIOL 202R (Cross-listed with: GEO 202R) Science Excursion 1
For students interested in the natural world. Explores a wide variety of topics in science, including geology, botany, astronomy, zoology, ecology, and archaeology. Consists of a minimum of a four-day field trip. Participants should gain an increased understanding of several fields of scientific study. May be repeated as many times as desired for interest, however a maximum of 3 credits may count toward graduation.

BIOL 202R (Cross-listed with: GEO 202R) Science Excursion 1
For students interested in the natural world. Explores a wide variety of topics in science, including geology, botany, astronomy, zoology, ecology, and archaeology. Consists of a minimum of a four-day field trip. Participants should gain an increased understanding of several fields of scientific study. May be repeated as many times as desired for interest, however a maximum of 3 credits may count toward graduation.

BIOL 204R (Cross-listed with: GEO 204R) Natural History Excursion 3
For students interested in the natural world. Promotes an in-depth look at a wide variety of topics in science, including geology, botany, astronomy, zoology, ecology, and archaeology. Consists of 15 hours of lecture plus an appropriate field trip. Participants should gain an interdisciplinary understanding of science and nature. May be repeated for up to six credits toward graduation.

BIOL 2070 (Cross-listed with: GEO 2070) Desert Natural History 3
Integrates the teaching of geological and biological systems of the southwestern deserts. Discusses the ecology and geology of unique desert ecosystems; the rocks and strata providing the foundation of the landscape; the evolutionary and geological processes that mold the landscape and the species within it over time; and, the relationships between the physical and biological aspects of the ecosystem, including humans. Provides an intense, hands-on field course where faculty and students participate together in daily activities in a natural setting. Is held for part of the time on the UVU main campus and part of the time at the Capitol Reef Field Station. Requires students to live and learn at the field station for approximately 1/3 of the course.

BIOL 2500 Environmental Biology 3
* Prerequisite(s): BIOL 1010 or BIOL 1610 is recommended
Acquaints students with the principles of environmental systems, including biogeochemical cycles, energy transformations, biotic and abiotic interactions, natural resources and their management. Discusses the interactions of ecological principles and humanity's technology relative to the world today and factors that influence the quality of life.

BIOL 290R Special Topics In Biology 1 to 4
* Prerequisite(s): BIOL 1010 or higher or Instructor Approval
Explores and examines special topics relating to the field of Biology. Emphasizes areas of rapid growth in Biology or current importance to society. May be repeated for a total of six credits toward graduation.

BIOL 295R Independent Studies in Life Sciences 1 to 4
* Prerequisite(s): At least 3 credit hours of college level biology, approval of a faculty mentor, and approval of the department chair
Provides individual studies in biology under the direction of a faculty mentor. May include literature reviews, original research, and participation in ongoing departmental projects. Introduces students to the methodology of life science research. Requires written and oral communication of scientific information. May be repeated for up to 4 credits toward graduation.
**Course Descriptions**

**BIOL 3070** (Cross-listed with: GEO 3070)  
Advanced Desert Natural History  
3  
* Prerequisite(s): University Advanced Standing  
Integrates the geological and biological systems of the southwestern deserts. Includes discussion of the ecology and geology of unique desert ecosystems; the rocks and strata providing the foundation of the landscape; the evolutionary and geological processes that mold the landscape and the species within it over time; and, the relationships between the physical and biological aspects of the ecosystem, including humans. Provides an intense, hands-on field course where faculty and students participate together in daily activities and experimental design in a natural setting. Is held part of the time on the UVU main campus and part of the time at the Capitol Reef Field Station. Requires students to live and learn at the field station for approximately 1/3 of the course.

**BIOL 3100**  
Introduction to Data Analysis for Biologists  
3  
* Prerequisite(s): University Advanced Standing  
Introduces computational methods for analyzing and visualizing common biological data types, focusing on developing computational skills and best practices for working with biological data. Provides instruction in command-line computing and appropriate software environments to enable robust and reproducible analyses of varied data sets.

**BIOL 3150**  
Bioinformatics Data Skills  
3  
* Prerequisite(s): BIOL 1011 and University Advanced Standing  
Introduces basic data skills for bioinformatics students with a focus on genetic sequence data, command-line usage, and pipeline development. Develops competence in interacting with a remote high-performance computing environment and installing, parsing, and linking novel bioinformatics tools. Applies the principles of project organization and reproducibility to create an analysis pipeline.

**BIOL 3200**  
Guided Research Experience  
1 to 3  
* Prerequisite(s): BIOL 1610 or BIOL 1010  
Provides an authentic research experience that is structured in a way that the class will move through the stages of research at the same time throughout the semester. Covers selected essential components and skills of conducting research including laboratory techniques, experimental design, hypothesis testing, and communication of findings. Focused for biology majors with little to no research experience. Course fee of $15 for materials applies.

**BIOL 3300**  
Developmental Biology  
3  
* Prerequisite(s): BIOL 1610 with a minimum grade of C- and University Advanced Standing  
Examines the principles of Developmental Biology with emphasis on the specialization of cells and their organization into body plans. Is recommended for Biology Majors interested in developmental processes. May be delivered online.

**BIOL 3400**  
Cell Biology  
3  
* Prerequisite(s): BIOL 1610 and CHEM 1220 with a C- or higher in each and University Advanced Standing  
For Biology majors or those desiring more knowledge of this subject. Studies the cell as an organism emphasizing molecular basis of cell structure and functions.

**BIOL 3405**  
Cell Biology Laboratory  
1  
* Prerequisite(s): BIOL 1610 and CHEM 1220 or higher with minimum grade of C- in each and University Advanced Standing  
* Corequisite(s): BIOL 3400  
Uses laboratory exercises to demonstrate topics covered in BIOL 3400. Includes experimental methods for studying cell processes, enzymes, tissue specific proteins, organelles, and experimental design. Course Lab fee of $100 applies.

**BIOL 3500**  
Genetics  
3  
* Prerequisite(s): BIOL 1610 with minimum grade of C- and University Advanced Standing  
For Biology majors. Studies the genetic basis of life and the mechanisms by which information to make life is stored in the DNA. Presents classical, molecular, and population genetics in the background of current techniques and understanding of genetic processes. Provides an understanding of the basic principles of genetics and preparation for more advanced courses in other aspects of biology. Canvas CourseMat $103/Macmillan applies

**BIOL 3550**  
Molecular Biology  
3  
* Prerequisite(s): BIOL 1610, CHEM 1215, and University Advanced Standing  
Examines structure, organization, replication, and expression of genomes. Explores the methods used for study of genome structure and function, including nucleotide and protein extractions, separations, and characterizations. Compares sequence data of genomes, transcriptomes, and proteomes. Examines primary literature in the field.

**BIOL 3555**  
Experiments in Molecular Biology  
1

**BIOL 3600** (Cross-listed with: CHEM 3600)  
Biological Chemistry  
3  
* Prerequisite(s): University Advanced Standing  
* Prerequisite(s) or Corequisite(s): CHEM 2320  

**BIOL 3605** (Cross-listed with: CHEM 3605)  
Biological Chemistry Lab  
1  
* Prerequisite(s): University Advanced Standing  
* Corequisite(s): BIOL 3600  
Introduces laboratory techniques in biochemistry. Studies methods and theory behind purification of proteins and nucleic acids including chromatography and electrophoresis. Uses methods in assessing enzyme activity and kinetics and protein structure analysis. Includes analysis and manipulation of DNA and RNA. Course Lab fee of $145 applies.

**BIOL 3620** (Cross-listed with: CHEM 3620)  
Biological Chemistry II  
3  
* Prerequisite(s): (CHEM 3600 or BIOL 3600) and University Advanced Standing  
Is a continuation of CHEM 3600. Teaches in-depth the biochemistry of molecular and cell biology processes. Explores the topics of molecular information flow and signaling. Examines current understanding in biochemical methods and ideas beyond those discussed in Biochem I.
BIOL 369R
Introduction to Undergraduate Research
1
* Prerequisite(s): BIOL 1610; (MATH 1050 or STAT 2040 highly recommended) and University Advanced Standing

Introduces fundamentals of research in biology, including how to identify a research problem, form testable hypotheses, select appropriate experimental methods, collect data, determine appropriate sample size, establish appropriate controls, conduct experiments, document experiment details and data, tabulate, analyze and interpret data and how to write a research report. Emphasizes research ethics, institutional research guidelines, personal protection, and proper disposal of hazardous chemicals and biologicals. Introduces research opportunities available within and beyond the university community. May be repeated for a maximum of 2 credits toward graduation.

BIOL 3700
General Ecology
3
* Prerequisite(s): BIOL 1620 with a C- or higher, and University Advanced Standing

Introduces the relationships between organisms and their environment, including processes at the individual, population, community, ecosystem, and biosphere levels. Includes specific topics such as adaptation to abiotic factors in terrestrial and aquatic habitats, global climate patterns and biomes, evolution of life histories, reproductive strategies and social behaviors, population distributions and dynamics, species interactions, community structure and succession, energy flow and nutrient cycles in ecosystems, global biodiversity, and the impact of humans on ecological processes.

BIOL 3705
General Ecology Laboratory
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): BIOL 3700

Laboratory component to General Ecology in which students may acquire skills in the collection, analysis, and presentation of ecological data. Activities include field sampling of plant and animal populations, laboratory experiments and observations, and computer simulations. Emphasizes techniques in data storage and statistical analysis, graphical representation of data, and scientific writing. Course Lab fee of $18 for lab, transportation applies.

BIOL 3800
Conservation Biology
3
* Prerequisite(s): (BIOL 1010 or BIOL 1620 with a minimum of C-) and University Advanced Standing; BIOL 3700 strongly recommended

Presents scientific principles of conservation biology and associated cultural and ethical issues. Explores the diversity of life on this planet and how that diversity is organized and distributed. Investigates the challenges facing management of our natural resources in order to maintain healthy and productive populations and ecosystems. Course fee of $13 for materials, transportation applies.

BIOL 3850
Marine Biology
3
* Prerequisite(s): BIOL 1620 with a C- or higher, and University Advanced Standing

Introduces students to the study of life in the ocean. Presents basic principles of the geological, chemical, and physical environment of marine systems. Examines the principal groups of marine organisms including microbes, seaweeds, invertebrates, fishes, marine birds, reptiles, and mammals. Surveys the basics of marine ecology and introduces students to the different types of oceanic habitats from the intertidal and surface waters down to the deep sea. May include an optional non-graded field trip (additional cost would apply, for more information contact the instructor).

BIOL 4000
Freshwater Ecology
4
* Prerequisite(s): BIOL 1620 and (BIOL 2500 or BIOL 3700) with a C- or higher in each, and University Advanced Standing

Explores physical, chemical, and biological characteristics of freshwater systems, including lakes, rivers, and streams. Emphasizes freshwater habitats as ecosystems. Studies human impacts on freshwater, with particular reference to Utah and the West. Emphasizes field experience in collecting and measuring the physiochemical characteristics and different groups of organisms found in freshwater habitats. Includes weekly laboratory. Course Lab fee of $17 for lab, transportation applies.

BIOL 4260
Ethical Issues in Biology WE
2
* Prerequisite(s): BIOL 1010 or BIOL 1610 with a C- or higher, and University Advanced Standing

Offers an in-depth analysis of current ethical issues in biology. Requires extensive reading and an analytical term paper. Presents subjects in lecture and in lab sessions. Concentrates on readings and on analyses of issues and their effects on people. Explores and discusses individual participant paradigms.

BIOL 4300
Bioinformatics and Genome Analysis
4
* Prerequisite(s): BIOL 3500 with a minimum grade C- and University Advanced Standing

Studies analysis of genomic sequences, comparison of genomes of different species to gather information about protein function. Includes hands on learning in bioinformatics and genomics. Uses a combination of computer work and discussions that will allow the student to perform basic gene and protein analysis using web tools.

BIOL 4400
Genomics
3
* Prerequisite(s): BIOL 3500 with minimum grade of C- and University Advanced Standing

Introduces genomics as a science and its relationship to bioinformatics. Provides fundamental knowledge and skills to carry out analysis of genes and genomes. Covers computational approaches for interpreting genomic data, including genome sequencing and annotation, gene expression and the transcriptome, functional genomics, metagenomics, and genetic variation and SNPs.

BIOL 4450
(Cross-listed with: MICR 4450)
Immunology
3
* Prerequisite(s): (MICR 2060 or MICR 3450 or ZOOL 2420) and University Advanced Standing

Explores the macromolecules, cells and organs involved in innate and adaptive immunity. Examines the development of lymphocyte repertoire, positive and negative selection of lymphocytes and the production of effector lymphocytes. Studies properties of antigens, vaccines, antigen presenting cells and the mechanisms of antigen presentation. Reviews major immunological methods for medical diagnostics and other applications. Examines causes and consequences of autoimmune and lymphoproliferative diseases and immunodeficiencies. Probes how immune response could be manipulated for cancer therapy and transplantation medicine.
Course Descriptions

**BIOL 4455 Immunology Laboratory 1**
*Prerequisite(s): University Advanced Standing*
*Corequisite(s): BIOL 4450*
Addresses federal, local and institutional regulations on using vertebrate animals for biomedical research. Teaches and regularly practices aseptic techniques required in handling biohazardous materials including vertebrate tissues. Studies how to collect tissues and blood from vertebrate animals and process the samples for harvesting various types of cells and macromolecules. Presents common immunological techniques such as western blot analysis and ELISA. Covers how to immunize animals using appropriate adjuvant and harvest plasma from immunized animals to isolate immunoglobulin. Examines tissue typing methodologies including PCR techniques. Course Lab fee of $150 applies.

**BIOL 4500 Principles of Evolution WE 3**
*Prerequisite(s): BIOL 1620 and (BIOL 3500 or MICR 3650) with a C- or higher in each, senior status, and University Advanced Standing*
*Prerequisite(s) or Corequisite(s): BIOL 3700 or MICR 3150 or BOT 3700*
Focuses on the concepts of evolution as a fundamental principle of biology. Emphasizes the mechanisms and explanations of the tremendous diversity of life. Studies classical, molecular and current explanations of evolution in the background of current techniques and understanding of the genetic processes. Examines the principles of evolution and the various aspects of natural selection and speciation.

**BIOL 4550 Molecular Evolution and Bioinformatics WE 3**
*Prerequisite(s): BIOL 3500 with minimum grade of C-, and minimum of 6 additional credits upper division biology (BIOL, BOT, MICR, ZOOL, BTCE) courses, and University Advanced Standing*
Focuses on the concepts of evolution as a fundamental principle of biology with emphasis on change at the molecular level. Teaches how natural selection shapes the evolution of genes, gene systems, macromolecules, and organisms. Explores the roles of mutation, natural selection, population size and subdivision, and genetic recombination. Introduces different approaches for testing hypotheses about how molecules evolve by using phylogenetic analysis.

**BIOL 4600 Bioinformatics Capstone 3**
*Prerequisite(s): Senior status in the Bioinformatics program and University Advanced Standing*
Applies concepts from the previous Bioinformatics sequence of courses to the real world. Allows students to work with faculty members and industry experts to design and complete a project that incorporates various concepts that have been presented in previous Bioinformatics courses. Requires development and/or application of bioinformatic tools and presentation of results.

**BIOL 481R Biology Internship 1 to 5**
*Prerequisite(s): BIOL 1620 with a C- or higher and Instructor Approval*
Allows biology majors to earn credit while obtaining practical and research experience as an intern in a government, nonprofit, private agency, or with an approved employer. Must be supervised by agency representative and faculty advisor. Department chairperson approval required and written contracts must be completed and signed. May be repeated with a maximum of 5 credits counting toward graduation. May be graded credit/no credit.

**BIOL 489R Student Research 1 to 4**
*Prerequisite(s): BIOL 1620, CHEM 1210, instructor permission, and University Advanced Standing*
Provides guided research studies in biology under the direction of a Biology Department faculty mentor. Includes any combination of literature reviews, original research, and/or participation in ongoing departmental projects. Involves students in the methodology of original biology research. Requires preparation and presentation of oral and/or written reports. May culminate in results that will form the basis of the senior thesis in the major, if thesis option is chosen. May be repeated for 9 credits toward graduation.

**BIOL 4900 Museum-Based Taxonomy and Biodiversity Research 3**
*Prerequisite(s): BIOL 1620 and (BOT 2050 or BOT 2100 or BOT 2400) with a C- or higher, and University Advanced Standing*
Focuses on botany and utilizes the UVU natural history museum herbarium and other online natural history resources. Employs museum-based pedagogical tools and will evaluate, define and practice taxonomic applications in biodiversity research, including how florals, faunas and mycotas have been used by scientists. Uses floristics to assess outputs (dissemination) and impacts as well as assess technology on field data collection, uses, potential, and how might collections be used in the future.
**Course Descriptions**

**BIOL 499R**  
Senior Thesis  
1 to 2  
* Prerequisite(s): ENGL 2010, junior standing, instructor permission, and University Advanced Standing  
Teaches students to write a thesis based on library research or work performed during laboratory/field research under BIOL 489R. Provides experience in critically analyzing published literature and, if laboratory/field research was performed, comparing research results with the scientific literature. Requires a technically accurate report on one's findings. Includes the opportunity to present the research results to students, faculty and the community at a Department of Biology seminar. May be repeated once for a total of 2 credits toward graduation.

**BIOL 5000**  
Regulatory Affairs for Life Sciences  
4  
* Prerequisite(s): Acceptance into the Certificate of Proficiency in Regulatory Affairs for Life Sciences or Instructor Approval  
Introduces regulatory affairs as practiced by medical device and biopharma companies in the US. Focuses on United States Federal Drug Administration and International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use guidances and best practices.

**BIOL 5010**  
Quality Management Systems for the Life Sciences  
2  
* Prerequisite(s): BIOL 5000  
Introduces FDA and International Conference on Harmonisation (ICH) requirements for the QSR (Quality System Regulation), Focuses on ISO 13485 and related guidances. Specifically covers the regulations and standards which are the basis of the regulated life science industry.

**BIOL 5020**  
Design Control and Risk Management for the Life Sciences  
3  
* Prerequisite(s): BIOL 5000  
Introduces design control and risk management requirements for medical device and BioPharma companies.

**BIOL 525R**  
Advanced Topics for Biology Teachers  
1 to 5  
* Prerequisite(s): Departmental Approval  
For licensed teachers or teachers seeking to re-certify their biology endorsement from the Utah State Office of Education. Teaches principles of biology and pedagogy of teaching biology for teachers in public or private schools. Emphasizes correlation with the Utah Core Curriculum, the National Science Education Standards, and the Benchmarks of Project 2061. Topics will vary.

**BIOL 579R**  
Special Topics  
2  
Focuses on issues that are current and often changing in regulatory affairs, such as international regulations. Engages students in discussion and lectures with industry experts on cutting-edge issues that impact how medical devices and pharmaceuticals are regulated for compliance and safety. May be repeated for a maximum of 8 credits toward graduation. May be delivered online.

**BIOL 580R**  
Capstone Project  
1  
* Prerequisite(s): BIOL 5020  
Applies knowledge learned in the Regulatory Affairs sequence of courses to the real world. Allows students to work with faculty members and industry experts to design and complete a project that incorporates various concepts that have been presented in previous Regulatory Affairs courses. May be repeated for a maximum of 3 credits toward graduation.

**BIOL 581R**  
Biology Internship  
1 to 5  
* Prerequisite(s): Instructor Approval and Internship Orientation  
Allows students to earn credit while obtaining practical and research experience as an intern in a government, nonprofit, private agency, or with an approved employer. Must be supervised by agency representative and faculty advisor. Department chairperson approval required and written contracts must be completed and signed. May be repeated with a maximum of 5 credits counting toward graduation. May be graded credit/no credit.

**BIOL 580R**  
Capstone Project  
1  
* Prerequisite(s): BIOL 5020  
Applies knowledge learned in the Regulatory Affairs sequence of courses to the real world. Allows students to work with faculty members and industry experts to design and complete a project that incorporates various concepts that have been presented in previous Regulatory Affairs courses. May be repeated for a maximum of 3 credits toward graduation.

**BMED 4200**  
Methods of Teaching Business/Marketing/ Digital Technology  
3  
* Prerequisite(s): (IM 2600 or IM 3700 or Instructor Approval), EDSC 3000, and University Advanced Standing  
Provides foundation knowledge of business education. Includes methods of teaching business, marketing, digital media, emerging technologies, and keyboarding. Includes philosophical foundations of business education, curriculum trends impacting business and technology classrooms, classroom management, curriculum planning, and assessment. Includes curriculum standards, competency-based instruction, career and technical education, and professionalism. Requires field observation. May be delivered hybrid. Lab access fee of $45 applies.

**BMED 4250**  
Methods of Teaching Business and Marketing  
3  
* Prerequisite(s): EDSC 3000, LEGL 3000, MKTG 220G, ECON 2020, MKTG 3600, or instructor approval, and University Advanced Standing  
Provides an opportunity for prospective teachers to become facilitators of learning specifically by planning, developing, delivering, and evaluating basic business and marketing curriculum. Provides the background and foundation of business/marketing teacher education for students seeking a secondary education degree. Includes textbook selection, student organizations, professional associations, and advisory committees. Addresses issues and trends in business and marketing education. Lab access fee of $45 for transportation applies.
Botany (BOT)

BOT 1800  Introduction to Horticulture  3
Introduces students to the horticulture industry including plant propagation, landscape management, and greenhouse management. Provides students with information to care for house plants and to design and care for home gardens.

BOT 2050  Field Botany  3
* Prerequisite(s): BIOL 1010 or BOT 2400 recommended
Covers the classification, identification, and ecology of woody plants with an emphasis on native trees and shrubs. Includes field trips and laboratory work. Designed for both biology majors and non-majors. Requires student plant collection. Course Lab fee of $30 for transportation applies.

BOT 2100  Flora of Utah  3
* Prerequisite(s): BIOL 1010 is recommended
Focuses on vascular plant taxonomy and is intended for botany and biology majors or anyone interested in learning about plants native to Utah. Covers the principles of plant classification, nomenclature, and identification with an emphasis on Utah flowering plants. Includes field trips and weekly laboratory. Requires student plant collection. Course Lab fee of $30 for transportation applies.

BOT 2400  Plant Kingdom  4
* Prerequisite(s): BIOL 1010 or BIOL 1610 with a minimum grade of C-
Surveys of the Divisions (Phyla) traditionally studied by botanists, emphasizing structure, reproduction, systematic, and evolution. Completers should be familiar with the morphological features of the major prokaryotic, fungal, algal, and plant groups. Includes a weekly laboratory. Course Lab fee of $50 for supplies applies.

BOT 290R  Special Topics In Botany  1 to 4
* Prerequisite(s): BIOL 1010 or higher or Instructor Approval
Explores and examines special topics relating to the field of Botany. Emphasizes areas of rapid growth in Botany or current importance to society. May be repeated for a total of six credits toward graduation.

BOT 295R  Independent Studies in Botany  1 to 4
* Prerequisite(s): At least 3 credit hours of college level biology, approval of a faculty mentor, and approval of the department chair
Provides individual studies in botany under the direction of a faculty mentor. May include literature reviews, original research, and participation in ongoing departmental projects. Introduces students to the methodology of botany research. Requires written and oral communication of scientific information. May be repeated for up to 4 credits toward graduation.

BOT 3210  Controlled Environment Experiments in Horticulture  3
* Prerequisite(s): BIOL 1610, BIOL 1615, MATH 1050, and University Advanced Standing
Introduces students to conducting greenhouse or growth chamber experiments. Discusses basic greenhouse design and components. Requires students to develop, conduct and analyze basic greenhouse research with the help of the instructor.

BOT 3340  Plant Biology  4
* Prerequisite(s): BIOL 1620 and (CHEM 1120 or CHEM 1220 or higher) with a minimum grade of C- in each, and University Advanced Standing
Covers structure-function interrelationships from the cellular to whole plant level, including aspects of plant anatomy, physiology, reproduction, growth and development with emphasis on the angiosperms (flowering plants). Designed for Biology Education majors and others wishing a one semester upper division combined plant anatomy/plant physiology course. Includes weekly laboratory. Course lab fee of $30 for supplies applies.

BOT 3500  Mycology  4
* Prerequisite(s): University Advanced Standing
Provides an introduction to the fungal kingdom, focusing on understanding evolutionary relationships and adaptations, and in gaining an appreciation for the environmental, industrial, and medical functions that fungi play. Actively explores current primary literature and research methods in mycology.

BOT 3710  Plant Propagation  3
* Prerequisite(s): BIOL 1620 and University Advanced Standing, BOT 1800 recommended
Provides students with an understanding of the basic principles of plant propagation. Emphasizes specific techniques for various types of plants in their appropriate environments. Includes propagating from seed, bulbs, layering, vegetative cuttings, grafting and micropropagation. Focuses on the science behind various propagation methods.

BOT 3800  Ethnobotany WE  4
* Prerequisite(s): BIOL 1620 with a C- or higher and University Advanced Standing
Analyzes and evaluates interactions between people and plants. Discusses how plants are used in medicine, industry, food, and culture. Covers basic concepts, including literature and field research techniques, phytochemical analysis, and ethical issues such as bioprospecting and conservation. Includes class discussions, student-led activities, oral presentations, and a final project. Course lab fee of $15 applies.
**Course Descriptions**

**BOT 4050**
**Plant Ecology**
3
* Prerequisite(s): BIOL 1620 with a C- or higher, and University Advanced Standing
* Corequisite(s): BOT 4055

Studies the interrelationships between plants and their environment, including population, community, and ecosystem processes. Specific topics include adaptation to abiotic factors, plant life history patterns, species interactions such as competition and herbivory; community structure, diversity, and dynamics; biome structure and distribution, and energy flow and nutrient cycles in ecosystems. Presents the impact of humans on plant communities and ecological processes.

**BOT 4055**
**Plant Ecology Laboratory**
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): BOT 4050

Laboratory component of Plant Ecology in which students acquire skills in the collection, analysis, and presentation of ecological data. Includes field sampling of plant populations, laboratory and greenhouse experiments, and scientific writing. Field trips, including one weekend field trip, are required. Course Lab fee of $97 for lab, transportation applies.

**BOT 4100**
**Plant Anatomy**
4
* Prerequisite(s): BIOL 1620 and BIOL 1625 with a minimum grade of C- in each, and University Advanced Standing

Covers the structure and development of cells, tissues and tissue systems in stems, roots, leaves, and reproductive structures in vascular plants, with emphasis on the angiosperms. Discusses primary and secondary plant body, including wood anatomy. Includes weekly laboratory. Course lab fee of $25 for supplies applies.

**BOT 4200**
**Plant Systematics**
3
* Prerequisite(s): (BOT 2050 or BOT 2100), (BIOL 1010 or BIOL 1620) with a C- or better in each course, and University Advanced Standing

Covers the principles of plant classification and the techniques employed in gathering and analyzing taxonomic data. Focuses on the essentials of phylogenetic analysis in plants and on the evolutionary relationships between the major groups of vascular plants. Includes a weekly laboratory.

**BOT 4300**
**Native Trees and Shrubs of Utah**
3
* Prerequisite(s): BOT 2050 or BOT 2100; University Advanced Standing

Explores the diversity of woody plants of Utah, the plant communities they inhabit, and the ecological roles they play. Requires field trips; may include overnight trips as well as scheduled labs. Course Lab fee of $70 for transportation applies.

**BOT 4430**
**Plant Pathology**
3
* Prerequisite(s): BIOL 1610 with a minimum grade of C- and University Advanced Standing

Teaches the fundamental concepts of plant pathology. Describes plant disease symptoms and organisms that cause those diseases and methods of control and diagnosis of diseases. Includes required laboratory. Course fee of $20 applies.

**BOT 4500**
**Introduction to Grasses**
3
* Prerequisite(s): BOT 2100 or BOT 2050 (with a C- or better); University Advanced Standing

Discusses grasses and their relatives, grass anatomy, taxonomy, and ecology. Emphasizes identification techniques. Includes heavy lab component and required field trips. Requires student plant collection.

**BOT 4600**
**Plant Physiology WE**
3
* Prerequisite(s): BIOL 1620 and CHEM 1220 both with a minimum grade of C-, and University Advanced Standing
* Corequisite(s): BOT 4605

Covers the physiological processes occurring in plants. Includes experimental techniques used in the investigation of processes such as photosynthesis, water and solute transport, tissue culture, growth regulation and responses and plant hormones. Involves problem solving and critical thinking skills.

**BOT 4605**
**Plant Physiology Laboratory**
1
* Prerequisite(s): BIOL 1610, BIOL 1615, and University Advanced Standing
* Corequisite(s): BOT 4600

Focuses on laboratory aspects of topics in BOT 4600. Covers experimental methods for studying plant physiological processes such as respiration, photosynthesis, mineral nutrition, transpiration and tissue-water relations. Course Lab fee of $35 applies.

**BOT 4650**
**Greenhouse Management**
3
* Prerequisite(s): CHEM 1220, BIOL 1620, and University Advanced Standing; BOT 1800 recommended

Gives students an in-depth understanding of greenhouse operations, infrastructure and management. Covers greenhouse structures components and controls. Studies plant growth and development within controlled environments. Informs students about plant nutrition, plant substrates, watering, and lighting strategies used in greenhouse management.

**BOT 4700**
**Plant Tissue Culture WE**
4
* Prerequisite(s): BIOL 1620 with a minimum grade of C- and University Advanced Standing

Focuses on laboratory aspects of topics in BOT 4700. Involves problem solving techniques. Prepares the student to design and carry out their own micro propagation systems for the cultivation of a particular plant species. Course lab fee of $60 applies.

**BOT 4800**
**Plant-Herbivore Interactions**
3
* Prerequisite(s): BIOL 1620 with a C- or higher, and University Advanced Standing

Studies the diversity of interactions between plants and herbivores, and how these interactions can affect population, community, and ecosystem-level dynamics. Topics include plant defenses, tri-trophic interactions, plant succession, and co-evolution. Implications of plant - herbivore interactions to natural resource management are considered.

**BOT 481R**
**Botany Internship**
1 to 5
* Prerequisite(s): BIOL 1620 with a C- or higher, Instructor Approval, and University Advanced Standing

Allows biology majors to earn credit while obtaining practical and research experience as an intern in a government, nonprofit, private agency, or with an approved employer. Must be supervised by agency representative and faculty advisor. Department chairperson approval required and written contracts must be completed and signed. May be repeated for a maximum of 5 credits toward graduation. May be graded credit/no credit.
Course Descriptions

**BOT 489R Student Research**
1 to 4
*Prerequisite(s): BIOL 1620, CHEM 1210, Junior or Senior Standing, Instructor Approval, and University Advanced Standing*

Provides guided research studies in botany under the direction of a Biology Department faculty mentor. Includes any combination of literature reviews, original research, and/or participation in ongoing departmental projects. Involves students in the methodology of original botanical research. Requires preparation and presentation of oral and/or written reports. May culminate in results that will form the basis of the senior thesis in the major, if thesis option is chosen. May be repeated for 9 credits toward graduation.

**BOT 490R Museum-Based Taxonomy and Biodiversity Research**
3
*Prerequisite(s): BIOL 1620 and (BOT 2050 or BOT 2100 or BOT 2400) with a C- or higher, and University Advanced Standing*

Focuses on botany and utilizes the UVU natural history museum herbarium and other online natural history resources. Employs museum-based pedagogical tools and will evaluate, define and practice taxonomic applications in biodiversity research, including how floras, faunas and mycotas have been used by scientists. Uses floristics to assess outputs (dissemination) and impacts as well as assess technology on field data collection, uses, potential, and how might collections be used in the future.

**BOT 499R Senior Thesis**
1 to 2
*Prerequisite(s): ENGL 2010, Junior standing, Instructor Approval, and University Advanced Standing*

Is for students who are nearing completion of a baccalaureate degree in Botany with the thesis option. Assists students who are writing a thesis based only on library research, or those who have performed laboratory/field research under BIOL 489R or BOT 489R. Provides experience in critically analyzing published literature and, if laboratory/field research was performed, comparing research results with the scientific literature, is supervised by an appointed faculty member of the Department of Biology. Requires a technically accurate report on one's findings. Includes the opportunity to present the research results to students, faculty and the community at a Department of Biology seminar. May be repeated once for a total of 2 credits toward graduation.

**Biotechnology (BTEC)**

**BTEC 1010 Fundamentals of Biotechnology I Career Survey**
3
Explores careers in biotechnology with emphasis on central dogma of biology, DNA techniques, applications in biotech, and bioethics. Examines forensics and human cloning. Includes lab work. Course Lab fee of $26 applies.

**BTEC 2010 DNA Manipulation and Analysis**
3
*Prerequisite(s): BTEC 1010 with a minimum grade of a C; BIOL 1610 and BIOL 1615, with minimum grade of C- in each*

Facilitates the mastery of lab skills relevant to DNA technology including recombinant DNA cloning, DNA gel electrophoresis, polymerase chain reaction and DNA sequencing. Course fee of $86 for lab applies.

**BTEC 2020 Protein Purification and Analysis**
3
*Prerequisite(s): BTEC 2010 with minimum grade of C*

Teaches current techniques with protein production, purification, and analysis. Includes instruction and practice with polyacrylamide gel electrophoresis (PAGE), chromatography, western blot, and FPLC analysis. Course fee of $107 for lab applies.

**BTEC 2030 Cell Culture Techniques**
2
*Prerequisite(s): BIOL 1615 with a minimum grade of a "C"

Teaches basics of eukaryote cell culture. Includes handling, storage, and maintenance of mammalian stocks. Emphasizes media preparation and sterile techniques. Includes in vitro labeling and transfection. Course fee of $195 for lab applies.

**BTEC 2040 Advanced Nucleic Acid Laboratory**
3
*Prerequisite(s): BTEC 2010 with minimum grade of C*

Teaches advanced nucleic acid modification and analysis methods. Includes site-directed mutagenesis, DNA sequencing, and RNA analysis methods, high-resolution DNA melting for genotyping and real-time PCR to quantitate DNA in samples. Incorporates methods to mutate 2 genes using CRISPR gene editing technology followed by RT-PCR to analyze gene expression (RNA isolation, creating cDNA, followed by real-time PCR).

**BTEC 3300 (Cross-listed with: CHEM 3300) Biomolecular Modeling and Simulations**
4
*Prerequisite(s): CHEM 3600 or BIOL 3600, and University Advanced Standing*

Introduces students to the field of molecular modeling and simulations and to the wide range of problems that can be tackled using computational methods. Focuses on biomolecular simulations and computer-aided drug discovery. Emphasizes the connection between structure, dynamics, and function. Teaches application of algorithmic thinking to solving complex problems. Develops practical skills needed to perform simulations and analyze the results. Develops understanding of the inherent approximations and limitations of the methods for adequate assessment of modeling results. Covers topics such as molecular visualization and rendering, molecular dynamics simulations, and computer-aided drug discovery through virtual screening and small molecule docking.

**BTEC 481R Biotechnology Internship**
1 to 10
*Prerequisite(s): BIOL 1610 with a minimum grade of C-, Junior standing in Biotechnology B.S. program, and instructor approval*

Allows biotechnology majors to earn credit while obtaining practical and research experience as an intern in a government, nonprofit, private agency, or with an approved employer. Must be supervised by agency representative and faculty advisor. Department chairperson approval required and written contracts must be completed and signed. May be repeated for a maximum of 10 credits. May be graded credit/no credit.
BTEC 489R
Student Research
1 to 4
* Prerequisite(s): BIOL 1610, CHEM 1210, BTEC 2010, Junior or Senior Standing, instructor permission, and University Advanced Standing

Provides guided research studies in biotechnology under the direction of a Biology Department mentor. Includes any combination of literature reviews, original research, and/or participation in ongoing departmental projects. Involves students in the methodology of original biology research. Requires preparation and presentation of oral and/or written reports. May culminate in results that will form the basis of the senior thesis in the major, if thesis option is chosen. May be repeated for 6 credits toward graduation.

BTEC 490R
Special Topics in Biotechnology
1 to 4
* Prerequisite(s): BIOL 1610 with minimum grade of C-, and University Advanced Standing

Explores and examines special topics relating to the field of biotechnology. Emphasizes areas of rapid growth in biotechnology or current importance to society. May be repeated for a maximum of 18 credits toward graduation.

BTEC 494R
Student Seminar WE
2
* Prerequisite(s): BTEC 2010 with minimum grade of C and University Advanced Standing

Requires students to research scientific literature, write a research paper, give oral presentations, and lead discussions on assigned biotechnology topics in specific areas of current research in biotechnology. May be repeated for up to 4 credits toward graduation.

BTEC 499R
Senior Thesis
1 to 2
* Prerequisite(s): ENGL 2010, junior standing, instructor permission, and University Advanced Standing

Is for students who are nearing completion of a baccalaureate degree in Biotechnology with the thesis option. Assists students who are writing a thesis based only on library research, or those who have performed laboratory/field research under BTEC 499R. Provides experience in critically analyzing published literature and, if laboratory/field research was performed, comparing research results with the scientific literature. Is supervised by an appointed faculty member of the Department of Biology. Requires a technically accurate report on one's findings. Includes the opportunity to present the research results to students, faculty and the community at a Department of Biology seminar and/or other appropriate venues (e.g., conferences). May be repeated for a maximum of 2 credits toward graduation.

Culinary Arts (CA)

CA 1000
Culinary Basics
3
Designed for hospitality management majors and as elective credit for other business majors. Explains the techniques and procedures of quality and quantity food production. Studies the selection and preparation of major food products. Provides an extensive set of basic and complex recipes for practice. Includes lectures, lab, visits of guest chefs, and field trips. Completers should be prepared to enter the working field as a prep cook. Course fee of $150 for materials applies.

CA 1120
Cooking Skills Development
5
* Prerequisite(s): CA 1490, Food Handlers permit or ServSafe Certification. Acceptance into the Culinary Arts Institute.

Covers basic food service skills in a commercial kitchen environment. Stresses the use of standardized recipes and procedures. Introduces basic ingredients, stocks, soups, mother sauces, protein fabrication, cooking methods and breakfast items. Includes daily end product assessment. Emphasizes sanitary food handling practices and professional work habits. Course fee of $750 for materials and equipment applies.

CA 1140
Professional Dining Room Services
1
* Prerequisite(s): Acceptance into the Culinary Arts Institute

Covers the key aspects and responsibilities of table servers in different styles of operations. Covers taking reservations, greeting guests, basic table settings, formal and specialized settings, food and beverage service, selling menu specials, closing checks, customer complaints, emergency procedures, and using a Point of Sale system.

CA 1150
Nutrition and Food Service
3
Provides an understanding of how and why the relationship between food and health has moved into sharp focus. This course will trace the change in dietary patterns that have been noted by the food service industry. This course has been designed to help meet the need of developing adequate healthful food programs. You will learn about the changes in eating attitudes and be able to define the various responsibilities of the food service industry. You will learn how to identify whether a market exists for a healthful food program and how to plan and manage such a program. The course will also explore nutrients and their food sources; physiological and metabolic aspects of nutrient functions; individual requirements; food choices and selection; prevention and treatment of common nutritional-related disease; along with contemporary and controversial issues.

CA 1160
Culinary Math
1
* Prerequisite(s): Matriculation and Acceptance into the Culinary Arts Institute

Reviews basic math functions. Applies basic math functions to culinary specific uses including unit conversion, recipe scaling, yields, recipe costing, menu costing, food service expenses and costs, and baker's percentages.

CA 1170
Pastry and Baking Skills
5
* Prerequisite(s): Food Handlers permit or ServSafe Certification. Acceptance into the Culinary Arts Institute. * Prerequisite(s) or Corequisite(s): CA 1490

Covers basic baking and pastry skills in a commercial kitchen environment. Stresses the use of standardized recipes and procedures. Covers baking terms, equipment and ingredients. Includes daily end product assessment. Covers yeast-leavened breads, quick breads, pies and tarts, custards, creams, cookies, brownies, pâte à choux, and meringues. Introduces nutritional and specialty diet concerns in baking and pastry. Emphasizes sanitary food handling practices and professional work habits. Course fee of $750 for materials and equipment applies.

CA 1180
Professional Kitchen Garde Manger
5
* Prerequisite(s): CA 1120, Food Handlers permit or ServSafe Certification

Covers preparation of cold food items in a commercial kitchen environment. Covers salad greens, tossed and composed salads, sandwiches, dressings & sauces, cold soups, display platters, assorted forcameats, savory mousse, preservation techniques, cold hors d'oeuvres, cold appetizers, cheese and centerpieces. Course fee of $750 for materials and equipment applies.
Course Descriptions

CA 1230 Professional Kitchen I Cooking 5
* Prerequisite(s): CA 1120
Covers advanced food service skills in a commercial kitchen environment. Introduces center of plate foods, starches, vegetables, and compound sauces. Advances comprehension of ingredients, stocks, soups, sauces, protein fabrication, cooking methods, flavor and taste development. Includes daily end product assessment. Emphasizes sustainability, sanitary food handling practices and professional work habits. Course fee of $750 for materials and equipment applies.

CA 1260 Culinary Spanish 1
* Prerequisite(s): Matriculation and Acceptance into the Culinary Arts Institute
Designed to assist food service employers, managers, and workers to effectively communicate to an increasingly Spanish-speaking work force. Introduces short phrasing to assist in basic communication.

CA 1310 Purchasing and Storeroom Management 3
* Corequisite(s): CA 1120 and CA 1170
Teaches principles and practices concerning purchasing of foods, supplies, and materials for a modern full-service food service operation. Emphasizes buying, writing specifications, determining needs, and controlling quality.

CA 1320 Culinary Management 3
* Prerequisite(s): Matriculation and Acceptance into the Culinary Arts Institute
Focuses on employee management and supervision concepts used in the food service field. Includes instruction on writing a professional resume.

CA 1480 Sanitation and Table Service 3
Teaches effective food and beverage service management in outlets ranging from cafeterias and coffee shops to room service, banquet areas, and high-check-average dining rooms. Presents basic service principles while emphasizing the special needs of guests. Explains effective sanitation management to achieve high standards that will keep customers coming back. Includes lecture, film, and tapes. Develops an entry-level working knowledge of serving food and beverage.

CA 1490 Food Service Sanitation 1
Explains effective sanitation measures that will keep customers and employees safe. Uses the ServSafe Program from the National Restaurant Association to meet the state wide requirements for food service employee’s sanitation and safety training.

CA 2120 Professional Kitchen II Restaurant 5
* Prerequisite(s): CA 1230
Focuses on practical applications of all Culinary Arts courses by running Restaurant Forte. Enhances knowledge of cooking methods, mise en place, flavor building, soups, salads, entrees and desserts through regional and international cuisines. Course fee of $750 for materials, equipment applies.

CA 2130 Advanced Pastry Baking 5
* Prerequisite(s): CA 1170
Covers advanced baking and pastry skills in a commercial kitchen environment. Covers cakes, icing, decoration of cakes, petit fours, dessert sauces, laminated doughs, and fillings and toppings. Introduces the use and role of value added dessert items, and banquet and catering dessert requirements. Emphasizes sanitary food handling practices and professional work habits. Course fee of $750 for materials and equipment applies.

CA 2430 Menu Facilities Design and Beverage Management 3
* Prerequisite(s): CA 1310
Introduces menu design. Explores the relationship between menus and restaurant design for both production and service areas. Explains fundamental principles and techniques for planning menus for different operation styles. Provides practical experience and approaches in beverage management and service. Emphasizes legal and moral responsibilities of serving alcoholic beverages. Teaches understanding, service, and storage of beverages in full service restaurants.

CA 2450 Menu Design 2
* Prerequisite(s): CA 1310
Introduces menu design. Explores the relationship between menus and restaurant design for both production and service areas. Explains fundamental principles and techniques for planning menus for different operation styles.

CA 2750 Baking 3
* Prerequisite(s): Instructor Approval
Teaches intermediate baking skills. Includes lectures, demonstrations, and daily hands-on activities. Emphasizes quality products, methods/techniques and formula development.

CA 2760 Pastry 5
* Prerequisite(s): Instructor approval
Combines patisserie skills learned in other culinary arts classes to develop advanced skills in the production of fine baked products. Stresses the use of standardized recipes and procedures. Includes cakes, tortes, pastries, chocolate, and desserts. Provides daily end-product critiquing. Course fee of $250 for materials applies.

CA 282R Culinary Arts Internship 1 to 8
* Prerequisite(s): Culinary Arts Institute Director Approval
Provides a transition from school to work where learned theory is applied to actual practice through a meaningful on-the-job experience commensurate with classroom instruction. May be repeated for up to eight hours toward graduation in the Culinary Arts degree. May be graded credit/no credit.

CA 296R Culinary Arts Seminar 1 to 3
* Prerequisite(s): Instructor Approval
Provides short courses, workshops, and special programs in Culinary Arts topics. Repeatable for up to three credits toward graduation.

CA 298R ACF 1
* Prerequisite(s): Instructor approval
Provides a foundation in activities. Prepares students to participate in local, state, and national competitions. May require payment of membership dues. A maximum of four credits may be applied toward graduation.

CA 299R VICA 1
For Culinary Arts students who are interested in participating with a national professional association (American Culinary Federation). Prepares students to participate in local, state, and national competitions. May require payment of membership dues. A maximum of four credits may be applied toward graduation.
Cabinetry and Architectural Woodwork (CAW)

CAW 100R
Survey of Working with Wood
2
An introductory course for those interested in working with wood. Students will experience the satisfaction of making a piece of furniture with individualized help from the instructor. Includes “hands on” practice with woodworking equipment and instruction in methods to design, build, and finish a wood project. May be repeated up to four times for credit. Course fee of $15 for materials, equipment applies.

CAW 1100
Artistic Wood Design
2
Explores form, functions, and utility of wood products through students' design and creation of projects in the wood lab. Provides opportunities to design and create a unique piece of woodworking.

CAW 1130
Residential Cabinetry
4
Studies cabinetmaking methods including joinery, construction, gluing, and clamping. Includes building a set of residential cabinets. Introduces hand and portable electric and air tools. Covers tool care and minor repairs. Stresses functions, selection, maintenance, and safety. Course fee of $15 for materials, equipment applies.

CAW 1140
Millworking and Safety Shop I
5
A lab for CAW students. Teaches fundamentals of woodworking machines and standard millwork operations. Studies correct construction techniques. Safety is taught the first 15 hours and stressed throughout the course. Course fee of $25 for materials, equipment applies.

CAW 114A
Millworking and Safety Shop I
2.5
Laboratory for Cabinetry students. Covers half of CAW 1140. Teaches fundamentals of woodworking machines and standard millwork operations. Studies correct construction techniques. Teaches safety the first 15 hours and stressed throughout the course. Course fee of $15 for materials, equipment applies.

CAW 114B
Millworking and Safety Shop I
2.5
Laboratory for Cabinetry students. Covers half of CAW 1140. Teaches fundamentals of woodworking machines and standard millwork operations. Studies correct construction techniques. Teaches safety the first 15 hours and stressed throughout the course. Course fee of $15 for materials, equipment applies.

CAW 1150
Design Drafting and Billing
3
For CAW majors and other interested community members. Teaches detailed drawing concepts, writing bills of materials, and material cost estimates. Uses all elements of good design.

CAW 1170
Finish Technology
2
For CAW majors and other interested community members. Studies types of stains, fillers, and finishes, and techniques to properly prepare wood. Teaches hand and spray painting. Includes lab experience. Course fee of $15 for materials applies.

CAW 1210
Cabinetmaking Materials and Hardware
1
Emphasizes characteristics of wood, plastic laminates, plywoods, and particle boards. Discusses proper use and residential hardware. Covers specifications, types, selection, and installation.

CAW 1240
Millworking Shop II
5
A second semester shop course for CAW students and interested community members. Teaches the design and construction of more difficult millworking projects. Studies advanced joiners, finishing techniques, and fastening devices. Stresses safety. Course fee of $25 for materials, equipment applies.

CAW 124B
Millworking Shop II
2
A second semester shop course for CAW students and interested community members. Covers half of CAW 1240. Teaches the design and construction of more difficult Millworking projects. Studies advanced joiners, finishing techniques, and fastening devices. Stresses safety. Course fee of $15 for materials, equipment applies.

CAW 1250
Drafting and Computer Applications for Cabinetmakers
4
Emphasizes design, purpose, function, appearance, materials, and construction for quality cabinetmaking. Covers efficient timesaving methods. Teaches material cost estimating. Teaches basic CNC software. Uses computer software Cabinet Vision® Master CAM. Course fee of $15 for materials, software applies. Lab access fee of $15 for computers applies.

CAW 140R
Millwork Technology
4
Teaches the techniques and skills necessary to construct quality furniture using current technology and processes. Stresses safety, machine and tool usage, joinery, and operations. Each semester the joinery and operations will differ and increase in difficulty depending on the required project. May be repeated for a maximum of 16 credits toward graduation.

CAW 2250
Computer Aided Manufacturing for Woodworking
4
Teaches how to use computer numerical controlled "CNC" machines to aid in the manufacturing of wood products. Includes machine setup, tooling, software usage, and parts production. Uses CAM software.

CAW 2300
Counter Top Technology
3
Explores methods used to produce different types of counter-tops. Studies high pressure laminates, solid wood, solid surface, tile, and stone. Includes field trips to counter-top shops. Course fee of $25 for materials, equipment applies.

CAW 2310
Cabinetry Math
2
Covers math used in cabinetmaking. Includes fractions, decimals, percents, interest, volume, and metrics. Studies special trade formulas. Students receive instruction through structured situations to cope with the special problems required in the woodworking industry.
Course Descriptions

CAW 2340
Millworking Shop III
5
Custom cabinetmaking shop. Practice in making and setting up custom shaper knives, doing custom flat and curved veneer and lamination work. Includes lathe work on the duplicator attachments. Completers should be able to enter the field as a cabinet and architectural woodworking trainee. Course fee of $25 for materials, equipment applies.

CAW 234A
Millworking Shop III
2.5
Custom cabinetmaking shop. Covers half of CAW 2340. Practice in making and setting up custom flat and curved veneer and lamination work. Includes lathe work on the duplicator attachments. Completers should be able to enter the field as a cabinet and architectural woodworking trainee. Course fee of $15 for materials, equipment applies.

CAW 234B
Millworking Shop III
2.5
Custom cabinetmaking shop. Covers half of CAW 2340. Practice in making and setting up custom shaper knives, doing custom flat and curved veneer and lamination work. Includes lathe work on the duplicator attachments. Completers should be able to enter the field as a cabinet and architectural woodworking trainee. Course fee of $15 for materials, equipment applies.

CAW 2340
Commercial Cabinetry Technology
4
Studies zoning, shop flow, and production set. Includes field trip to commercial cabinet shop. Teaches set up of machines used in the industry. Course fee of $15 for materials, equipment applies.

CAW 2440
Millworking Shop IV
5
A culminating architectural woodworking shop. Students build projects demonstrating advanced skills learned in previous shop courses. Course fee of $25 for materials, equipment applies.

CAW 244B
Millworking Shop IV
2
Culminates previous architectural woodworking courses. Covers half of CAW 2440. Requires advanced skills, learned previously, to complete projects. Course fee of $15 for materials, equipment applies.

CAW 2450
Machine Maintenance and Upkeep
2
Studies the maintenance and upkeep of machines and tools used in the woodworking industry. Focuses on sharpening, routine maintenance, machine set-up, adjustments, and diagnosing problems.

CAW 281R
Cooperative Work Experience
1 to 8
* Corequisite(s): CAW 285R the first time only
For CAW majors. Provides paid, on-the-job work experience in the student's major. Work experience, the related class, and enrollment are coordinated by the Cooperative Coordinator. Includes student, employer, and coordinator evaluations, on-site work visits, written assignments, and oral presentations. Provides experience in writing and completing individualized work objects that improve present work performance. May be repeated twice for credit. May be graded credit/no credit.

CAW 285R
Cooperative Correlated Class
1
* Corequisite(s): CAW 281R the first time only
For CAW majors. Identifies on-the-job problems and provides remediation of those problems through in-class discussion and study. Includes the study of identifying and maximizing service opportunities. Students register for this class with approval of the Cooperative Coordinator. Includes lectures, guest speakers, video tapes, role playing, case analysis, oral presentations, and written assignments. Completers should be better able to perform in their field of work or study. May be repeated twice for credit.

CAW 299R
Skills USA
1
Supports and facilitates the goals and objectives of Skills USA pre-professional student organization that develops social awareness, civic, recreational, and social activities. Students may participate in local, state, and national contests. May be repeated for a maximum of 2 credits toward graduation.

Chemistry (CHEM)

CHEM 1010
Introduction to Chemistry
3
* Prerequisite(s): MAT 1010 or higher with a C- or better, OR STAT 1040 or STAT 1045 or above with a C- or better, OR a placement score equivalent to MATH 1050 or above
* Corequisite(s): CHEM 1015 (optional)
Assumes no previous knowledge of chemistry. Presents the foundations of chemistry to students who need preparation for further study in chemistry as well as to students who only want to take an introductory course. Covers chemical measurements, atomic structure, formulas, chemical reactions and equations, chemical nomenclature, stoichiometry, molecules and chemical bonding, gas laws, liquids, solids, solutions, acids and bases. Course lab fee of $31 applies.

CHEM 1015
Introduction to Chemistry Lab
1
* Corequisite(s): CHEM 1010
A lab designed to accompany CHEM 1010. Provides practical experience to support chemistry foundational learning. Emphasizes chemical measurements, atomic structure, formulas, chemical reactions and equations, chemical nomenclature, stoichiometry, molecules and chemical bonding, gas laws, liquids, solids, solutions, acids and bases. Course lab fee of $31 applies.

CHEM 1110
Elementary Chemistry for the Health Sciences
4
* Prerequisite(s): MAT 1010 or higher with a C- or better, or STAT 1040 or STAT 1045 with a C- or better, or a placement score into MATH 1050 or higher
Introduces the fundamentals of chemistry to students in the health sciences. Covers chemical measurements and calculations, atomic structure, chemical bonding, chemical reactions, states of matter, solutions, chemical equilibrium, acid-base systems, and introduces organic chemistry.

CHEM 1115
Elementary Chemistry Laboratory
1
* Prerequisite(s) or Corequisite(s): CHEM 1010 or CHEM 1110
Introduces inorganic laboratory experiments including density, precipitation, determination of empirical formulas, gas laws and acid-base reactions. Course Lab fee of $27 applies.
CHEM 1120  
**Elementary Organic Bio-Chemistry**  
4  
* Prerequisite(s): CHEM 1110  
Introduces organic and biochemistry for non-chemistry majors entering nursing and other allied health fields such as medical technology, physical therapy, nutrition, and environmental technology. Studies the nomenclature of organic compounds, organic functional groups and their reactivities, stereochemistry, major biomolecules and their metabolism, enzymes, chemical communications, and chemistry of heredity. May also be used to prepare for organic chemistry (CHEM 2310 and 2320).

CHEM 1125  
**Elementary Organic Bio-Chemistry Laboratory**  
1  
* Prerequisite(s): CHEM 1110 and CHEM 1115  
* Corequisite(s): CHEM 1120  
An introductory organic bio-chemistry laboratory class for non-chemistry majors who need a laboratory to accompany Elementary Organic Bio-Chemistry (CHEM 1120). Explores identifications and reactions of organic functional groups and conducts experiments with biomolecules. Course Lab fee of $80 applies.

CHEM 1210  
**Principles of Chemistry I**  
4  
* Prerequisite(s): MATH 1080, MATH 1050, MATH 1055 or any higher MATH course with a C- or better, or appropriate placement scores for MATH 1060 or higher. Also, it is highly recommended to have prior chemistry experience in high school or in CHEM 1010  
* Corequisite(s): CHEM 1215  
First semester of a full-year course primarily for students in the physical and biological sciences and engineering. Covers fundamentals of chemistry including atoms, molecules, reactions, stoichiometry, chemical bonding, thermochemistry, and gas laws.

CHEM 1215  
**Principles of Chemistry I Laboratory**  
1  
* Corequisite(s): CHEM 1210  
Primarily for students in the physical and biological sciences and engineering. Introduces laboratory safety and chemical waste disposal practices. Teaches techniques of using standard laboratory equipment. Shows how to record laboratory data and prepare laboratory reports. Experiments follow topics in CHEM 1210. Course Lab fee of $26 applies.

CHEM 1220  
**Principles of Chemistry II**  
4  
* Prerequisite(s): CHEM 1210 with a grade of C- or higher  
* Corequisite(s): CHEM 1225  
Continuation of Chemistry 1210. Primarily for students in the physical and biological sciences and engineering. Covers intermolecular interactions, properties of solutions, kinetics, equilibria, thermodynamics, and electrochemistry.

CHEM 1225  
**Principles of Chemistry II Laboratory**  
1  
* Prerequisite(s): CHEM 1215 with a C- or better  
* Corequisite(s): CHEM 1220  
Is designed for the physical and biological sciences and engineering. Teaches intermolecular interactions, properties of solutions, kinetics, equilibria, thermodynamics, and electrochemistry. Follows CHEM 1215 and emphasizes topics from CHEM 1220. Course Lab fee of $42 applies.

CHEM 1250  
**Chemistry Cornerstone- Research and Careers**  
1  
Explores scientific literature, culture and careers. Teaches college success strategies for STEM fields to support students interested in a STEM major.

CHEM 1260  
**Chemistry Cornerstone- Ethics**  
1  
Explores scientific ethics. Teaches college success strategies for STEM fields to support students interested in a STEM major.

CHEM 2310  
**Organic Chemistry I**  
4  
* Prerequisite(s): CHEM 2200 & CHEM 2315 with a C- or higher  
* Corequisite(s): CHEM 2325  
Introduces spectroscopic techniques used in identification of organic compounds. Teaches carbon-carbon bond formation strategies. Introduces the concept of aromaticity. Teaches free radicals and their effects on environment and life. Surveys biologically important organic molecules such as carbohydrates, proteins, lipids, and nucleic acids.

CHEM 2320  
**Organic Chemistry II**  
4  
* Prerequisite(s): CHEM 2310 & CHEM 2315 with a C- or higher  
* Corequisite(s): CHEM 2325  
The second of a series of two laboratory courses to accompany CHEM 2310 and 2320. For students majoring in science and those interested in careers in medicine, dentistry, veterinary science, and pharmacy. Provides hands-on experience in organic synthesis using a series of single and multistep transformations. Teaches identification of products of reactions using spectroscopic techniques. Explores biologically important organic molecules. Course Lab fee of $88 applies.

CHEM 3000  
**Analytical Chemistry**  
2  
* Prerequisite(s): CHEM 1220, CHEM 1225 and Advanced University Standing  
* Corequisite(s): CHEM 3005  
For Chemistry majors and others interested in the basic principles of chemical measurement. Studies principles of quantitative analysis, stoichiometry, equilibrium theory, and volumetric analysis. Introduces error analysis and instrumental methods, especially electrochemistry, spectrophotometry, chromatography, and mass spectrometry.
Course Descriptions

CHEM 3005
Analytical Chemistry Laboratory
2
* Prerequisite(s): CHEM 1220, CHEM 1225, and University Advanced Standing
* Corequisite(s): CHEM 3000
For Chemistry majors and others interested in the basic principles of chemical measurement. Laboratory companion to CHEM 3000. Involves conducting experiments in quantitative and qualitative analysis, including volumetric and gravimetric analysis. Also, students will conduct experiments in introductory instrumental methods, including experiments in spectrophotometry, electrochemistry, and chromatography. Course Lab fee of $146 applies.

CHEM 3020
Environmental Chemistry
3
* Prerequisite(s): CHEM 1225 and University Advanced Standing
Studies the chemistry of soil, ground water, hazardous waste, and the atmosphere. Explores current environmental concerns and issues.

CHEM 3025
Environmental Chemistry Laboratory
1
* Prerequisite(s): CHEM 1225 and University Advanced Standing
Laboratory course which supports CHEM 3020, Environmental Chemistry. Introduces laboratory, sampling, and data analyses techniques used in environmental laboratories. Covers air sampling, and soil and water analysis using a variety of instruments and techniques.

CHEM 3060
Physical Chemistry I WE
4
* Prerequisite(s): CHEM 1250, CHEM 1260, PHYS 2220, and University Advanced Standing
* Corequisite(s): CHEM 3065
Offers an advanced discussion of the laws of thermodynamics and chemical thermodynamics. Applies the laws to chemical reactions and equilibrium. Covers changes of state, including phase diagrams. Discusses real gases and real solutions. Introduces electrochemistry and chemical kinetics.

CHEM 3065
Physical Chemistry I Lab
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): CHEM 3060
Demonstrates physical chemistry experiments exploring principles and concepts introduced in CHEM 3060. Teaches design and execution of physical chemistry experiments and interpretation of the observations, as well as application of physical chemistry to solving physical chemistry problems. Course lab fee of $75 applies.

CHEM 3070
Physical Chemistry II
4
* Prerequisite(s): CHEM 3060, MATH 2210 and University Advanced Standing
* Corequisite(s): CHEM 3075
Provides an advanced discussion of quantum mechanics, including solutions to the Schrodinger wave equation. Connects quantum mechanics with observables, including spectroscopy.

CHEM 3075
Physical Chemistry II Lab
1
* Prerequisite(s): CHEM 3060, CHEM 3065, and University Advanced Standing
* Corequisite(s): CHEM 3070
Demonstrates physical chemistry experiments exploring principles and concepts. Provides opportunity to design and execute physical chemistry experiments and interpretation of the observations. Applies physical chemistry to solving physical chemistry problems.

CHEM 3080
Physical Chemistry III
3
* Prerequisite(s): CHEM 3070 and University Advanced Standing
Teaches the fundamentals of statistical mechanics and chemical kinetics, as well as the fundamentals of the specialized topics of the physical chemistry of chemical symmetry, computational chemistry, NMR spectroscopy, and electrochemistry.

CHEM 3100
Advanced Inorganic Chemistry
4
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): CHEM 3000
Reviews major trends across the periodic table.Surveys basic structure, bonding, and oxidation states of the elements. Introduces inorganic stereochemistry including coordination compounds.

CHEM 3115
Advanced Inorganic Chemistry Lab
1
* Prerequisite(s): CHEM 3005 and University Advanced Standing
* Corequisite(s): CHEM 3100
Explores principles and concepts introduced in CHEM 3100. Teaches design and execution of inorganic chemistry experiments and interpretation of the observations. Uses application of inorganic chemistry to solving inorganic chemistry problems. Course Lab fee of $130 applies.

CHEM 3300
(Biomedical Chemistry Laboratory)
4
* Prerequisite(s): CHEM 3600 or BIOL 3600, and University Advanced Standing
Introduces students to the field of molecular modeling and simulations and to the wide range of problems that can be tackled using computational methods. Focuses on biomolecular simulations and computer-aided drug discovery. Emphasizes the connection between structure, dynamics, and function. Teaches application of algorithmic thinking to solving complex problems. Develops practical skills needed to perform simulations and analyze the results. Develops understanding of the inherent approximations and limitations of the methods for adequate assessment of modeling results. Covers topics such as molecular visualization and rendering, molecular dynamics simulations, and computer-aided drug discovery through virtual screening and small molecule docking.

CHEM 3600
(Biomedical Chemistry Laboratory)
3
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): CHEM 2320

CHEM 3605
(Biological Chemistry Laboratory)
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): BIOL 3600
Introduces laboratory techniques in biochemistry. Studies methods and theory behind purification of proteins and nucleic acids including chromatography and electrophoresis. Uses methods in assessing enzyme activity and kinetics and protein structure analysis. Includes analysis and manipulation of DNA and RNA. Course Lab fee of $145 applies.

CHEM 3620
(Biological Chemistry II)
3
* Prerequisite(s): (CHEM 3600 or BIOL 3600), and University Advanced Standing
is a continuation of CHEM 3600. Teaches in-depth the biochemistry of molecular and cell biology processes. Explores the topics of molecular information flow and signaling. Examines current understanding in biochemical methods and ideas beyond those discussed in Biochem I.
CHEM 3800 (Cross-listed with: ENVT 3800, PHYS 3800)  
Energy Use on Earth  
3  
* Prerequisite(s): (PHYS 1010 or PHSC 1000 or GEO 1010 or GEO 2040 or METO 1010) and (MATH 1050 or MATH 1055) and CHEM 1010 and University Advanced Standing  
Covers the science of energy production and consumption. Quantitatively analyzes various methods of energy production, distribution, and end use in all sectors of our society, including transportation, residential living, and industry. Examines the impacts of our energy consumption on the environment and prospects for alternative energy sources. Is intended for science majors interested in energy use in society or in an energy related career, and for students in other majors who feel that a technical understanding of energy use will help them to understand and mitigate its impact in our society.

CHEM 4000  
Instrumental Analysis WE  
2  
* Prerequisite(s): CHEM 3000, and University Advanced Standing  
* Corequisite(s): CHEM 4005  
Covers modern instrumental methods and basic principles of instrumentation. Includes spectroscopic and chromatographic analysis.

CHEM 4005  
Instrumental Analysis Laboratory  
2  
* Prerequisite(s): CHEM 3000, CHEM 2325, and University Advanced Standing  
* Corequisite(s): CHEM 4000  
Experiments in selected areas of instrumental methods of analysis. Covers both quantitative and qualitative methods of analysis. Includes introductory laboratory exercises and laboratories using advanced sample preparation and instrumental analysis techniques. Involves the independent creation and implementation of an advanced laboratory exercise. Course Lab fee of $333 applies.

CHEM 4030  
Radiochemistry  
3  
* Prerequisite(s): CHEM 1220, MATH 1210, and University Advanced Standing  
Introduces nuclear and radiochemistry, stressing the fundamentals of nuclear structure, systematics of nuclear decay, the detection and measurement of radiation, radiation protection, and the role of nuclear chemistry in medical, environmental and scientific applications. Discusses nuclear fuel cycles and nuclear waste problems.

CHEM 4600  
Structure Determination  
3  
* Prerequisite(s): CHEM 2320, and University Advanced Standing  
* Corequisite(s): CHEM 4605  
Explores integrated topics in organic, inorganic, physical, solid-state, and biochemistry using advanced theory. Enables hands-on use and manipulation of state-of-the-art instrumentation. Examines primary chemistry literature, and involves substantial problem solving using spectroscopic and spectrometric data.

CHEM 4605  
Structure Determination Laboratory  
1  
* Prerequisite(s): CHEM 2320 and University Advanced Standing  
* Corequisite(s): CHEM 4600  
Exposes students to integrated topics in organic, inorganic, physical, solid-state, and biochemistry using advanced theory. Enables hands-on use and manipulation of state-of-the-art instrumentation. Immerses students in the primary chemistry literature, and involves substantial problem solving using spectroscopic and spectrometric data. Taken as a corequisite with CHEM 4600. Course lab fee of $204 applies.

CHEM 4800  
Pharmacology  
3  
* Prerequisite(s): (CHEM 3600 or BIOL 3600) and University Advanced Standing  
Explores the science behind pharmacological therapeutics. Examines general considerations such as pharmacokinetics, drug metabolism, and toxicology. Surveys focused topics including drugs and drug targets for a wide variety of diseases.

CHEM 482R  
Chemistry Internship  
1 to 4  
* Prerequisite(s): CHEM 2320, a minimum GPA of 3.0, Departmental approval of the internship proposal, and University Advanced Standing  
Provides supervised, practical, and research experience for students preparing for careers in chemistry. May be repeated for a maximum of 6 credit hours as per school standards. May be graded credit/no credit.

CHEM 483R  
Undergraduate Research in Chemistry  
1 to 4  
* Prerequisite(s): Departmental approval and University Advanced Standing  
Conducts research on a project determined by the student jointly with a chemistry faculty and approved by the Chemistry Department Chair. Emphasizes experimental technique, data collection and analysis, and preparation of research for presentation to an audience of peers. May be repeated for a maximum of 6 credits toward graduation.

CHEM 491R  
Advanced Topics in Inorganic Chemistry  
3  
* Prerequisite(s): Instructor Approval and University Advanced Standing  
Examines advanced and current topics of inorganic chemistry including bioinorganic chemistry, organometallic chemistry, symmetry and molecular orbital theory, and the descriptive chemistry of main-group compounds. Varies from semester to semester. Offered on demand. May be repeated for a maximum of 9 credits.

CHEM 4920  
Chemistry Capstone- Literature/Seminar  
1  
* Prerequisite(s): CHEM 2320 with a C- or higher and University Advanced Standing; ENGL 2010 highly recommended  
Engages in current chemistry topics. Enables familiarity with chemistry literature resources, teaches chemistry research and design, and facilitates preparation for further education and employment in chemistry-related fields. Focuses on current topics in chemistry and on chemistry literature.

CHEM 4930  
Chemistry Capstone- Ethics/Seminar  
1  
* Prerequisite(s): CHEM 2320 with a C- or higher and University Advanced Standing  
Teaches chemistry research and design for further education and employment in chemistry-related fields. Focuses on scientific ethics, current topics in chemistry, chemistry literature and formal report writing based on American Chemical Society guidelines.

CHEM 495R  
Advanced Topics in Organic Chemistry  
3  
* Prerequisite(s): CHEM 2310, CHEM 2320, Instructor approval, and University Advanced Standing  
For students majoring in Chemistry. Varies from semester to semester. May be repeated for a maximum of 9 credits. Topics include organic synthesis, reaction mechanisms, and identification of organic compounds.

CHEM 496R  
Special Topics in Chemistry  
1 to 4  
* Prerequisite(s): CHEM 2320, Junior or Senior standing, instructor approval, and University Advanced Standing  
Explores special topics in chemistry. Topics vary depending on student demand and current topics of significance in chemistry. May be repeated for a maximum of 8 credits toward graduation.
Course Descriptions

CHEM 499R
Independent Study and Research
1 to 4
* Prerequisite(s): Instructor approval and University Advanced Standing
Uses independent study on selected topics and conducting experiments in the same topic. Provides guidance by a faculty member. May be taken for a maximum of 4 credits.

CHEM 525R
Advanced Topics for Chemistry Teachers
1 to 5
* Prerequisite(s): Departmental Approval
For licensed teachers or teachers seeking to recently their chemistry endorsement from the Utah State Office of Education. Teaches principles of chemistry and pedagogy of teaching chemistry for teachers in public or private schools. Emphasizes correlation with the Utah Core Curriculum, the National Science Education Standards, and the Benchmarks of Project 2061. Topics will vary.

Chinese (CHIN)

CHIN 1010 LH
Beginning Chinese I
4
Offers an introduction to basic Chinese. Uses various methods of instruction that focus on the development of functional competence in listening, speaking, reading, and writing. Provides comprehensive explanations of basic Chinese grammar along with structural practice for building language accuracy. Lab access fee of $10 applies.

CHIN 1020 LH
Beginning Chinese II
4
* Prerequisite(s): Students need equivalent knowledge of CHIN 1010
Offers a continuation of basic Chinese. Uses various methods of instruction that focus on the development of functional competence in listening, speaking, reading, and writing. Provides comprehensive explanations of basic Chinese grammar along with structural practice for building language accuracy. Lab access fee of $10 applies.

CHIN 115R LH
Chinese Conversation I
1
Offers novice Chinese speakers opportunities to enhance their speaking proficiency in the target language by focusing on oral verbal production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, and sharpen listening comprehension for natural conversational flow. Contrasts with all other first year courses which must strive to produce mastery of the whole range of language acquisition components, including writing, grammar, etc. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of speech opportunities and defusing concern for such matters as spelling, etc. Increases mastery of lexical items through increased frequency of oral usage. May be repeated for a maximum of 3 credits toward graduation.

CHIN 2000 LH
Chinese Character Studies
2
* Prerequisite(s): Basic Chinese speaking ability
Prepares students who have oral fluency in Chinese to read and write Chinese characters, including skills in sentence and paragraph writing according to Chinese language norms in order to advance to 3000 level courses.

CHIN 2010 LH
Intermediate Chinese I
4
* Prerequisite(s): Students need equivalent knowledge of CHIN 1020
Offers a continuation of basic Chinese. Reviews and builds additional skills from 1000-level language courses. Uses various methods of instruction that focus on the development of functional competence in listening, speaking, reading, and writing. Introduces authentic texts and provides discussions based on reading. Provides comprehensive explanations of basic Chinese grammar along with structural practice for building language accuracy. Lab access fee of $10 applies.

CHIN 202G HH
Intermediate Chinese II
4
* Prerequisite(s): Students need equivalent knowledge of CHIN 2010
Emphasizes increased communicative ability as well as grammatical accuracy; adds more complex, literary grammatical structures, as well as discussion of contemporary cultural and political themes. Includes reading of basic 1000 characters and writing of basic 450-600 characters. Uses diglot weave (mixture of English and Chinese) and character-romanization mix to ease learning of characters. Lab access fee of $10 applies.

CHIN 215R LH
Chinese Conversation II
1
* Prerequisite(s): Students should have equivalent knowledge of CHIN 1020
Offers lower division / novice Chinese speakers opportunities to enhance their speaking proficiency in the target language by focusing on oral verbal production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, sharpen listening comprehension, and develop conversational strategies such as circumlocution and managing a conversation with useful expressions for starting a conversation, gaining time to think, helping the other speaker, seeking agreement, etc. Contrasts with all other first year courses which must strive to produce mastery of the whole range of language acquisition components, including writing, grammar, etc. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of speech opportunities and defusing concern for such matters as spelling, etc. Increases mastery of lexical items through increased frequency of oral usage. May be repeated for a maximum of 3 credits toward graduation.

CHIN 3030 HH
Chinese Composition and Conversation
3
* Prerequisite(s): (CHIN 202G or equivalent experience or instructor approval) and University Advanced Standing
Advances mastery of Chinese grammar while emphasizing production skills of speaking and writing. Expands reading and listening skills to a lesser degree. Reviews and extends lexical depth. Allows students without experience living in a Chinese immersion setting to advance in their communication skills to where they may participate more comfortably in future upper division courses with other students who do have immersion experience. Offers a variety of topics presented in a variety of media as content basis for real communicative practice in Chinese. Conducts all course work primarily in Chinese. Chinese character learning prepares students advanced reading in Chinese.
CHIN 3050
Advanced Chinese
3
* Prerequisite(s): It is recommended that students have passed CHIN 202G, have had one year residency in a Chinese-speaking region, or instructor approval.
* Prerequisite(s) or Corequisite(s): CHIN 2000
Designed for non-native Mandarin speakers who, as a result of foreign residency or similar exposure to the language, have attained a good mastery of basic Mandarin Chinese. Sharpens students’ speech-making, reading, and writing skills through advanced Chinese readings about culture, civilization and society, with an emphasis on vocabulary, grammar and syntax. Enhances students’ cultural knowledge and awareness through a variety of carefully designed practices and activities. Taught predominantly in Chinese.

CHIN 3100
Introduction to Classical Chinese
3
* Prerequisite(s): Completion of CHIN 3050 with a grade of C or above; University Advanced Standing
Introduces classical Chinese, the written language from Pre-Qin time through the Han Dynasty (220AD), and the foundation of the literary language of China until the early twentieth century when the vernacular Chinese was introduced through New Cultural Movement in the 1910s and 1920s. Introduces basic syntax, grammar, and vocabulary through the readings of authentic texts ranging from a variety of literary genres including philosophical writings, historical/political literature.

CHIN 3116
Exploring China-Past/Present and You
3
* Prerequisite(s): High school students have to pass the AP Chinese Language or AP Chinese Literature & Culture test with a 3 or higher
This course is part of the State of Utah Chinese Bridge Program and it will be taught only in high schools and for high school students. Not to be taught on college campus for university students. Explores the legacies of Chinese culture and tradition and its impacts on and relations to the contemporary societal issues. Emphasizes literary analysis and criticism. Develops knowledge of literary history, skills in interpreting literary texts, and deepens understanding of the Chinese language.

CHIN 3117
Chinese Legacies: tradition and modernity
3
* Prerequisite(s): High school students must pass the AP Chinese Language or AP Chinese Literature & Culture test with a grade of “3” or higher
This course is part of the State of Utah Chinese Bridge Program and it will be taught only in high schools and for high school students. Not to be taught on college campus for university students. Explores the legacies of Chinese culture and tradition and its impacts on and relations to the contemporary societal issues. Emphasizes literary analysis and criticism. Develops knowledge of literary history, skills in interpreting literary texts, and deepens understanding of the Chinese language.

CHIN 3118
Chinese Popular Culture
3
* Prerequisite(s): High school students have to pass the AP Chinese Language test with a score of 3 or above.
This course is part of the State of Utah Chinese Bridge Program and it will be taught only in high schools and high school students. Not to be taught on college campus for university students. Explores the role that current film, media, and entertainment play in the Chinese-speaking world and exposes students to the historical and cultural perspectives presented through these media. This course is instructed in Chinese.

CHIN 315R
Advanced Chinese Conversation
1
* Prerequisite(s): CHIN 202G or one year residency in a Chinese-speaking country, or instructor approval. University Advanced Standing.
Offers speaking opportunities to middle or upper division Chinese learners to enhance their speaking proficiency in high level language by focusing on oral and verbal production. Improves authentic pronunciation, reduces grammatical and structural errors, and aids student progression beyond translation to natural production. May be repeated for a maximum of 3 credits toward graduation.

CHIN 3200
Business Chinese I
3
* Prerequisite(s): CHIN 3050 and University Advanced Standing
Prepares students to take the Business Chinese Test (BCT), a state-level standardized test designed to assess the Chinese proficiency of non-native speakers engaged in business activities. Explores how students can effectively and respectfully pursue business activities with Chinese companies within the framework of Chinese culture, sponsored by Office of Chinese Language Council International. Taught predominantly in Chinese.

CHIN 351G
Chinese Culture and Civilization
3
* Prerequisite(s): (CHIN 3050 or equivalent) and University Advanced Standing
Explores chronologically the evolution and development of Chinese culture and civilization, and a multitude of aspects that construct Chinese national identity and civilization. Examines modern and contemporary issues, cultural, ethnic, historic, social and economic development of China, as well as historical prosperity and decline, and independence from and interdependence with other nations. Conducted entirely in Mandarin Chinese, including presentations and class instructions.

CHIN 3560
Modern Chinese Literature from 1900
3
* Prerequisite(s): CHIN 3030 or CHIN 3050, and University Advanced Standing
Studies and analyzes chronologically from 1900 representative Chinese authors to focus on the relevance of their writings to the student’s own life. Emphasizes literary analysis and criticism. Develops knowledge of literary history, skills in interpreting literary texts, and deepens understanding of the Chinese language. Analyzes works of diverse genres such as fiction, poetry, and essay. Provides students with enough exposure to each author to develop a feeling for his or her work.

CHIN 3690
Modern China Through Film
3
* Prerequisite(s): CHIN 3050 and University Advanced Standing
Studies Chinese cinema within the historical, cultural, thematic, and aesthetic context. Reflects on the historical, cultural, political, social, and economic issues that shape Modern China.

CHIN 4050
Chinese Language and Culture
3
* Prerequisite(s): CHIN 3050, over one year residency in a Mandarin Chinese-speaking country, or instructor approval, and University Advanced Standing
Designed for non-native Mandarin speakers who, as a result of foreign residency or similar exposure to the language, have attained a fairly good mastery of basic Mandarin Chinese. Sharpens students’ speech making, reading and writing skills through advanced Chinese readings on culture, civilization and society, with an emphasis on vocabulary, grammar and syntax. Enhances students’ cultural knowledge and awareness through a variety of carefully designed practices and activities. Taught predominantly in Chinese.
CHIN 4060
Topics in Grammar Usage and Style 3
* Prerequisite(s): [CHIN 3030 or CHIN 3050] with a grade of C or higher and University Advanced Standing

Reviews Chinese grammar focusing on problem areas. Explores grammar as deployed in different genres. Emphasizes writing in different styles. Identifies styles in readings and compiles according to certain styles.

CHIN 4100
Translation and Interpretation 3
* Prerequisite(s): CHIN 4050 and University Advanced Standing

Introduces translation as a discipline. Discusses basic theory, principles and tools of translation. Employs the tools of translation: dictionaries, glossaries, grammars and computerized resources. Extensive practice of translation and interpretation from English to Chinese and from Chinese to English.

CHIN 412R
Chinese for the Professions 3
* Prerequisite(s): CHIN 3050 and University Advanced Standing

Offers Medical Chinese, Legal Chinese, Chinese for Science and Technology, or Chinese for Tourism according to student demand. Focuses on the practical needs of students who seek careers in the applicable areas. Addresses the specialized vocabulary and communicative ability necessary for a professional in a bilingual English-Chinese or monolingual Chinese environment. Introduces interpretation in professional situations. May be repeated for a maximum of 6 credits toward graduation with different topics.

CHIN 4200
Business Chinese II 3
* Prerequisite(s): CHIN 3200 and University Advanced Standing

Builds on the content of CHIN 3200. Teaches students business Chinese with more complicated grammatical and rhetorical structures. Studies business Chinese terms and expressions, subtle business Chinese culture and customs practiced in Chinese business society, and the more advanced Chinese business language and culture in Chinese societal settings. Prepares students to effectively and respectfully pursue business activities with Chinese companies within the framework of Chinese culture through a better understanding of the language, culture and society. Strengthens and prepares students to take the Business Chinese Test (BCT), a state-level standardized test designed to assess the Chinese proficiency of non-native speakers engaged in business activities. Taught predominately in Chinese.

CHIN 4250
Newspaper Readings 3
* Prerequisite(s): CHIN 3030 or CHIN 3050 with a grade of C or higher and University Advanced Standing

Introduces the language of Chinese media, including newspapers, magazines, TV, radio and the internet. Covers both the content of the selected materials and the linguistic characteristics of the language: its structures, vocabulary and style. Emphasizes improved reading comprehension through the study, analysis and discussion of a wide range of topics in the Chinese media.

CHIN 4280
Selected Readings in Classical Chinese 3
* Prerequisite(s): CHIN 3100 and University Advanced Standing

As a continuation of CHIN 3100, takes students to a range of philosophical, historical and literary texts. Includes readings from prose texts such as Daodejing, Lunyu, Mengzi, Zhan’guo ce, and Shiji. Introduces readings in different genres, such as ghost tales and love romances from the Medieval period, and short excerpts from canonical Ming-Qing novels.

CHIN 4300
Advanced Writing in Chinese 3
* Prerequisite(s): (CHIN 3050 or CHIN 4050) and University Advanced Standing

Designed to improve students’ accuracy, clarity and use of appropriate styles, forms and vocabularies when writing in Chinese. Informs students of the significant roles played by styles, content and intentionality of discourse in their writing, and focuses on improving their skills in addressing the requirements of those various roles in different contexts.

CHIN 490R
Special Topics in Chinese Language and Literacy 3
* Prerequisite(s): CHIN 3050, University Advanced Standing

Presents selected topics in Chinese language and literacy (grammar, literacy, and culture). Covers topics such as “Practical Modern Chinese Grammar” or “Modern Chinese Literacy and Sentence Structure”. Studies the main points in Modern Chinese language, literacy and their relations to Chinese society, history and culture. Projects and evaluation will vary according to the topic. May be repeated for a maximum of 9 credits toward graduation.

Chinese Studies (CHST)

CHST 200G
Introduction to Chinese Studies 3
* Prerequisite(s): ENGL 1010 or ENGH 1005

Taught in English. Introduces Chinese Language and Culture to interested students and gives them an overview about the minor study program. Includes an introduction into the characteristics of Chinese script by memorizing a few everyday expressions in Chinese. Introduces Chinese history, economy, society, politics, culture and popular culture, and ethics including philosophy, religions, beliefs, film, literature, contemporary discourses.

CHST 362G
Traditional Chinese History 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Introduces the student to the broad outlines of the cultural history of traditional China from some of the earliest historical records (about 1200 BCE) up through the late imperial period (about 1800 CE). Taught in English.

CHST 363G
Modern Chinese History 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Introduces the student to the broad outlines of Chinese Civilization from the last Imperial Dynasty until the present day. Taught in English.

CHST 3650
China Transformations from 1949 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Introduces China transformations from the broad outlines under the Communist Party of China since 1949 until the present day. Taught in English.

CHST 3739
Selected Readings from Pre-Qin Writings 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Introduces traditional Chinese thinkers in pre-Qin time and enrich students knowledge of ancient Chinese culture and civilization through selected readings from pre-Qin classical writings. Taught in English.

CHST 373G
Classical Chinese Literature 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Studies classical Chinese literature within the historical, cultural, thematic, and aesthetic context. Taught in English.
CHST 375G
Modern Chinese Literature 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Studies modern Chinese literature within the historical, cultural, thematic, and aesthetic context. Taught in English.

CHST 416R
Chinese Culture and Film 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Examines a selection of films from internationally acclaimed Chinese film directors.

CHST 481R
Internship 1 to 8
* Prerequisite(s): Departmental Approval, and University Advanced Standing

For upper-division students working toward a Minor in Chinese Studies or Chinese Commerce. On approval also counts for a Bachelor of Science Degree in Business Management. Provides a transition from school to work where learned theory is applied to actual practice through meaningful on-the-job experience. No more than three credit hours of internship work experience will apply toward graduation in Chinese Studies or in any Business Management Specialization; may be repeated for a maximum of 16 credits. May be graded credit/no credit.

CHST 490R
Special Topics in Chinese Studies or Commerce 3
* Prerequisite(s): University Advanced Standing

Taught in English. Covers topics of social change, history, political science, culture including literature, art, cinema, economy including commerce, and business culture. Offers insights into Chinese life in the past and today. Defines terminology involved, studies evolution and/or specific texts or contexts, and considers theoretical discourse. Provides additional materials in Chinese for students who want more language practice, e.g., in the Chinese Language minor. May be repeated for a maximum of 9 credits toward graduation.

Cinema Studies (CINE)

CINE 2150 (Cross-listed with: ENGL 2150) HH
Critical Introduction to Cinema Studies 3
* Prerequisite(s): ENGL 2010

Studies film as an aesthetic and cultural medium. Teaches the fundamentals of film, including narrative form, mise en scene, cinematography, editing, sound, and non-narrative forms. Teaches film analysis, including ideological approaches, and considers film as a cultural institution. May be delivered hybrid.

CINE 217G (Cross-listed with: COMM 217G, ENGL 217G) HH
Race Class and Gender in U S Cinema GI 3
* Prerequisite(s): ENGL 1010 or ENGH 1005

Raises cultural awareness through aesthetic, critical, and interdisciplinary examination of the evolution of the representation of race, class, and gender in American cinema. Focuses on both Hollywood and independent minority filmmakers. Some films screened may carry an “R” rating.

CINE 2311 (Cross-listed with: THEA 2311)
Film History I FF 3

Explores the development of the feature film, both in America and abroad from 1895 to 1945. Covers the evolution of motion pictures from conception as an entertainment novelty (c. 1895) to the mass-audience, commercial art form of the 1940’s. Examines film as a serious historical study of a form of mass communication, which has had ethical, social, and political consequences on society. Includes lecture, screenings, and demonstrations with critical discussions of assigned readings and films.

CINE 2312 (Cross-listed with: THEA 2312)
Film History II 3

Explores the development of the feature film, both in America and abroad from 1940 to the Present. Emphasizes the continuing evolution of motion pictures from the height of the Studio System 1930s through to its status as one “form” of digital entertainment in 2010. Examines film as a serious historical study of a form of mass communication, which has had ethical, social, and political consequences on society. Includes lecture, screenings, and demonstrations with critical discussions of assigned readings and films. (Note: Some films screened may be considered controversial and carry an “R” rating.)

CINE 234R (Cross-listed with: THEA 234R)
Special Topics in Cinema Studies 3
* Prerequisite(s) or Corequisite(s): THEA1023 or CINE2150

Focuses upon a particular genre, director, or film movement. May be repeated once for a total of 6 credits toward graduation.

CINE 312R (Cross-listed with: LANG 312R)
National Cinema History 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Covers a single national cinema tradition from the early days of film to the present. Explores representative films from a nation's cinematic chronology, considering major themes, movements, controversies, and artists. Considers social and political contexts as related to the national film output. May be repeated for a maximum of 9 credits toward graduation.

CINE 3150 (Cross-listed with: ENGL 3150)
Cinema and Television Theory 3
* Prerequisite(s): (CINE 2150 or ENGL 2150) and University Advanced Standing

Examines major theoretical approaches to the screen arts. Explores how cinema and television reflect and are created by historical and contemporary cultural contexts. Includes the study of various approaches such as fan studies, spectatorship, stars, authorship, genre, long-form narrative and production. Includes lecture, film and media screenings, and critical discussions of assigned readings.

CINE 416R (Cross-listed with: ENGL 416R, THEA 416R)
Special Topics in Film Studies 3
* Prerequisite(s): (ENGL 2150 or CINE 2150 or THEA 1023) and University Advanced Standing

Covers cinema directors, genre, theory, and social change on a rotating basis. Explains course focus, defines terminology involved, then studies evolution and/or specific texts or contexts, and considers theoretical discourse. May be repeated for a maximum of 9 credits toward graduation. Some films screened may carry an “R” rating. Course fee of $40 for support applies.

CINE 418R
Sundance Documentary Film 3
* Prerequisite(s): University Advanced Standing

* Prerequisite(s) or Corequisite(s): ENGL 2150 or CINE 2150

Covers history of documentary film, studies current modes and models of documentary film, includes attending Sundance film festival documentaries. May be repeated for a maximum of 6 credits toward graduation. Some films screened may carry an “R” rating, or may not be rated but would carry an “R” rating. Course fee of $50 for support applies.

Civil Engineering (CIVE)

CIVE 2130
Engineering Economics and Statistics 3

Covers fundamental engineering economic topics and introduces concepts of probability and statistics. Includes economic compound interest and discount rate factors, nominal and effective interest rates, cash flow diagrams, capitalized cost, net present worth analysis, equivalent uniform annual cost, internal rate of return, benefit-cost analysis, basic microeconomics, cost estimation, and cost indexes. Includes probability theories, random sampling, Gaussian distributions, Chi-Squared distributions, hypothesis testing, and analysis of variation.
CIVE 2450 Numerical Methods with Excel and VBA 3
* Prerequisite(s): MATH 2250
Discusses computational and symbolic methods for the solution of complex engineering problems. Introduces basic programming logic in visual basic. Discusses computer representation of numbers and algorithm error analysis. Covers the solution of multiple constraints. Covers use of Microsoft EXCEL and Visual Basic for Applications (VBA).

CIVE 3010 Introduction to Transportation Engineering 3
* Prerequisite(s): EGDT 1040, University Advanced Standing and (Formal Acceptance into the Civil Engineering Program or Departmental Approval)
Covers analysis and design of transportation systems and their components. Introduces technological, economic, and social aspects of transportation. Covers economic considerations, role of public policy, system planning, design, management, traffic flow models, intersection control, network analysis, and environmental impact. Lab access fee of $45 applies.

CIVE 3130 Structural Analysis 3
* Prerequisite(s): ENGR 2140, University Advanced Standing, and (Formal Acceptance into the Civil Engineering Program or Departmental Approval)
Focuses on analysis of determinate and indeterminate structural systems. Covers flexibility and moment distribution methods. Introduces design load distribution and load guidelines. Lab access fee of $45 applies.

CIVE 3140 Structural Steel Design 3
* Prerequisite(s): CIVE 3130, University Advanced Standing, and (Formal Acceptance into the Civil Engineering Program or Departmental Approval)
Focuses on design of structural steel components of a building. Covers tension members, compression members, beams, and connections using Load and Resistance Factor Design (LRFD). Includes a design component. Lab access fee of $45 applies.

CIVE 3150 Reinforced Concrete Design 3
* Prerequisite(s): CIVE 3130, University Advanced Standing, and (Formal Acceptance into the Civil Engineering Program or Departmental Approval)
Focuses on design of reinforced concrete components of a structure. Covers beams, columns, slabs, and foundations according to the American Concrete Institute (ACI) 318 building code requirements. Includes a design component. Lab access fee of $45 applies.

CIVE 3210 Geotechnical Engineering 3
* Prerequisite(s): ENGR 2140, University Advanced Standing, and (Formal Acceptance into the Civil Engineering Program or Departmental Approval)
Focuses on study of soil properties, classifications, and behavior. Applies principles of mechanics to soil as an engineering material. Introduces consolidation and compaction theories, effective stresses, shear strength, and earth pressure and slope stability. Includes a design component. Lab access fee of $45 applies.

CIVE 3320 Hydraulics and Hydrology 3
* Prerequisite(s): ME 3310, University Advanced Standing, and (Formal Acceptance into the Civil Engineering Program or Departmental Approval)
* Prerequisite(s) or Corequisite(s): ENGR 2450 or CIVE 2450
Focuses on concepts of hydraulics such as pipe and open channel flows. Covers weather patterns, precipitation measurement, distribution, and runoff. Introduces storm hydrograph and peak flow analysis, flood design, reservoir and channel routing. Includes a design component. Lab access fee of $45 applies.

CIVE 3335 Civil Engineering Experimentation I WE 2
* Prerequisite(s): ME 3310, University Advanced Standing, and (Formal Acceptance into the Civil Engineering Program or Departmental Approval)
* Prerequisite(s) or Corequisite(s): CIVE 3320
Covers temperature, pressure, and flow measurement, along with calibration of thermal/fluid sensors in a lab setting. Focuses on experiments to investigate various phenomena in fluid flow, hydraulics, and hydrology. Investigates the performance of pumps. Includes a writing component. Lab access fee of $45 applies.

CIVE 3610 Environmental Engineering 3
* Prerequisite(s): CHEM 1210, MATH 2250, University Advanced Standing, and (Formal Acceptance into the Civil Engineering Program or Departmental Approval)
Introduces the fundamentals of environmental engineering. Focuses on chemical, biological, and physical principles dealing with water, waste water, and solid waste management. Covers analyses of air, surface, and ground water quality. Includes a design component. Lab access fee of $45 applies.

CIVE 4010 Traffic Engineering 3
* Prerequisite(s): CIVE 3010 and University Advanced Standing
Introduces elements of traffic engineering including: road use, traffic flow theories, traffic control devices, traffic data collection. Covers freeways and rural highways and principles of intersecting signalization, service level and capacity. Includes a design component. Lab access fee of $45 applies.

CIVE 4020 Highway Design 3
* Prerequisite(s): CIVE 3010 and University Advanced Standing
Covers classification of highways. Focuses on the process involved in design of highways and their elements. Introduces design of highway cross sections, intersections, and interchanges. Covers design of vertical and horizontal alignment and establishment of sight distances. Includes a design component. Lab access fee of $45 applies.

CIVE 4135 Civil Engineering Experimentation II WE 2
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ENGR 2160
Covers testing of civil engineering materials such as soil, asphalt, concrete, and metals related to geotechnical, pavement, and structural aspects of civil engineering. This is a laboratory course with a writing component. Course lab fee of $25 applies. Lab access fee of $45 applies.

CIVE 4210 Foundation Design 3
* Prerequisite(s): CIVE 3210 and University Advanced Standing
Covers foundation classifications. Applies fundamentals of soil mechanics to analysis and design of soil structure systems. Covers shallow and deep foundations, piles and caissons, and retaining structures. Includes a design component. Lab access fee of $45 applies.

CIVE 4220 Ground Improvement Methods 3
* Prerequisite(s): CIVE 3210 and University Advanced Standing
Focuses on the analysis, design, and application principles of ground improvement methods to address soil and rock engineering problems. Includes compaction theory and methods, deep dynamic compaction, compaction by explosion, vibro-compaction, stone columns, in-situ control tests, dewatering, preloading, mechanically stabilized (reinforced) earth.
CIVE 4310  
Storm Water Management  
3  
* Prerequisite(s): ME 3310 and University Advanced Standing  
Applies fluid mechanics and hydrology principles to the analysis and design of storm water management facilities. Covers environmental issues related to storm water management. Includes a design component. Lab access fee of $45 applies.

CIVE 4320  
Open Channel Flow  
3  
* Prerequisite(s): CIVE 3320 and University Advanced Standing  
Covers analysis of open channel flow systems. Introduces natural and designed channels, steady and unsteady flows, uniform and non-uniform flows and flow transitions. Includes lectures and design projects. Lab access fee of $45 applies.

CIVE 4510  
Civil Engineering Seminar  
1  
* Prerequisite(s): University Advanced Standing  
* Prerequisite(s) or Corequisite(s): CIVE 4810  
Introduces various civil engineering careers and related industries. Emphasizes the importance of life-long learning and active participation in professional societies and communities through lectures given by practicing engineers using their own experiences. Introduces various engineering codes of ethics. Intended as a culminating seminar for graduating seniors to prepare for their engineering careers. Lab access fee of $45 applies.

CIVE 4610  
Water and Wastewater  
3  
* Prerequisite(s): CIVE 3320 and University Advanced Standing  
Introduces municipal water and wastewater treatment and distribution practices. Applies physical, chemical, and biological principles to design and operation of water and wastewater distribution systems. Lab access fee of $45 applies.

CIVE 4810  
Civil Engineering Capstone I  
3  
* Prerequisite(s): University Advanced Standing, Formal Acceptance into Civil Engineering Program, and Department Approval  
Serves as a comprehensive two-semester civil engineering design experience with practical constraints. Focuses on applying civil engineering principles and the design process along with economic analysis and project management methods to a real-world project, and present the findings to other engineers and the public. Capstone I and II must be taken in consecutive semesters. Lab access fee of $45 applies.

CIVES 481R  
Internship  
1 to 3  
* Prerequisite(s): Matriculation to civil engineering program, Instructor Approval, and University Advanced Standing.  
Provides opportunities to apply classroom theory while students work as employees in a job that relates to their careers. Students communicate regularly with a coordinator. Credit is determined by the number of hours a student works during the semester and completion of individually set goals. May apply for up to 3 credits; may be graded as credit/no credit.

CIVE 4820  
Civil Engineering Capstone II  
3  
* Prerequisite(s): CIVE 4810 and University Advanced Standing  
Serves as a second semester of the two-semester design experience from conception to modeling or prototype. Focuses on applying civil engineering principles and the design process along with economic analysis and project management methods to a real-world project, and present the findings to other engineers and the public. Capstone I and II must be taken in consecutive semesters. Lab access fee of $45 applies.

CIVE 490R  
Advanced Current Topics in Civil Engineering  
1 to 3  
* Prerequisite(s): University Advanced Standing and (Formal Acceptance into the Civil Engineering Program or Department Approval)  
Provides exposure to emerging topics and technologies of current interest in civil engineering. Varies each semester depending upon the state of technology. May be repeated for a maximum of 6 credits toward graduation without prior written department approval. Lab access fee of $45 applies.

CJ 1010  
Introduction to Criminal Justice  
3  
* Prerequisite(s): CJ 1010; CJ 1390 is also strongly recommended as a pre- or co-requisite for Criminal Justice majors  
Introduces the fundamentals of criminal investigations. Examines the techniques commonly utilized by investigative personnel for crimes against property and persons to include case management and documentation, interacting with victims, witnesses and suspects, and crime scene analysis. May be delivered online.

CJ 1300  
Introduction to Forensic Science  
3  
Studies Forensic Science and multiple forensic disciplines as they correlate with criminal investigations. Teaches the identification and importance of multiple types of physical evidence typically found at a crime scene and how that evidence is used to provide a link between the victim, suspect, and crime scene. Explains the proper techniques needed to document a crime scene and physical evidence. Provides the process of taking the evidence from the scene and the scientific analysis of the evidence, which is completed at the crime laboratory.

CJ 1330  
Introduction to Policing  
3  
* Prerequisite(s): ME 3100  
Examines the crime problem, criminal justice system, the elements of specific offenses, and the role of the criminal justice profession in the fact-gathering process.
Course Descriptions

**CJ 1800**
POST Module I
7
* Prerequisite(s): Departmental approval required, Passing score on National Peace Officer Selection Test.

Completes all training required by Utah Peace Officer Standards and Training (POST) to become certified as a Peace Officer. Certification may become active when hired by an agency with Peace Officer authority.

**CJ 1810**
POST Module II
11
* Prerequisite(s): CJ 1800, Departmental Approval Required

Completes all training required by Utah Peace Officer Standards and Training (POST) to become certified as a Law Enforcement Officer. That certification may become active when hired by an agency with Peace Officer authority.

**CJ 2110**
Security Management and Loss Prevention
3
* Prerequisite(s): CJ 1010

Examines external and internal security measures, confidential personnel investigations, and interview procedures. Studies principle and major concepts in prevention, protection, loss control, and crime prevention in the commercial sector.

**CJ 2200**
Writing for Criminal Justice Professionals
3
* Prerequisite(s): CJ 1010 and (ENGL 1010 or ENGH 1005)

Teaches written communication across the criminal justice spectrum. Emphasizes basic formats and language used to present accurate, understandable and factual information. Requires written reports, affidavits, warrants, probable cause statements and other legal documents. Applies proper communication principles to legal writing situations. Allows students to author a variety of formal legal documents. Canvas Course Mats of $49/ Pearson applies.

**CJ 2330**
Juvenile Justice
3
* Prerequisite(s): CJ 1010

Provides an overview of the juvenile justice system from its origin through present-day trends and development. Examines the origin and development of the juvenile court as well as its changing social and political philosophy. Discusses the role and relationship of municipal law enforcement toward the juvenile offender. Examines closed juvenile institutions, juvenile probation, parole, and alternative placement such as group homes.

**CJ 2350**
Laws of Evidence
3
* Prerequisite(s): CJ 1330

Examines the principles and practices of the laws and rules of evidence pertaining to the use of criminal evidence in the trial process. Studies legal issues including admissibility of evidence, judicial notice, burdens of proof, hearsay, documentary evidence, evidentially privileged and witnesses. Studies the various sources of rules at the Federal and State levels discovering how the American system of case law affects the development of evidence law.

**CJ 250G**
Justice For All
3

Examines issues of diversity in criminal justice and current trends associated with racial and ethnic conflict. Investigates the topics of racism, immigration, gender, sexual orientation, and socio-economic disparity. Discusses salient issues to facilitate critical thinking, enhance knowledge, and inform perspectives. Analyzes varying viewpoints to provide a deeper understanding of the actions taken by individuals both inside and outside the criminal justice system. Emphasizes the social construction of crime and the treatment of minorities as offenders and victims.

**CJ 281R**
Internship
1 to 8
* Prerequisite(s): Department Approval

Provides actual, on-the-job work experience on a paid basis in a criminal justice profession or other approved related situation. Emphasizes successful work experience, with emphasis on identifying and solving problems. Completers should be qualified to work at entry-level jobs in the criminal justice profession. May be repeated for a maximum of 8 credits toward graduation. May be graded credit/no credit.

**CJ 290R**
Criminal Justice Lecture Series
1
* Prerequisite(s): CJ 1010 and University Advanced Standing

Offers weekly lectures by professionals working in criminal justice related fields. Provides insight regarding the practical aspects of a career in policing, courts, corrections, and other related professions. Encourages social awareness, explores current legal issues, and develops civic consciousness. Credit/No-Credit grade issued. May be repeated for a total of three elective credits towards graduation.

**CJ 3020**
Police Administration
3
* Prerequisite(s): ENGL 2010, CJ 1010 and University Advanced Standing

Discusses the issues facing contemporary law enforcement administrators. Focuses on the complexities associated with law enforcement organization leadership and strategic planning, training, and stress management; evaluation, promotion, and discipline; legal issues and police department liability; budgeting; politics; and media relations.

**CJ 3040**
Community Policing
3
* Prerequisite(s): ENGL 2010 (recommended), CJ 1010, and University Advanced Standing

Presents the fundamentals of the community-oriented policing philosophy. Includes the comparison of traditional and community policing philosophies; law enforcement and community relationships. Analyzes the importance of political and public support and involvement; attitudinal changes involving the roles of police management, supervisors, and line personnel; creation of partnership with community organizations and police problem-solving methodologies.

**CJ 3060**
Corrections in the Community
3
* Prerequisite(s): CJ 1300 and University Advanced Standing

Studies the Criminal Justice Community Corrections component. Presents historical origin, development, and current practices in probation, parole, the halfway house, work and educational release, as well as furlough programs. Requires the design of an ideal corrections facility and a pre-sentence investigation report and recommendation.

**CJ 3070**
Criminal Profiling
3
* Prerequisite(s): CJ 1010 and University Advanced Standing

Introduces process of reviewing and assessing the behavioral facts of a violent criminal act from a law enforcement and/or investigative perspective.

**CJ 3100**
Criminal Law
3
* Prerequisite(s): Department Approval

Introduces the fundamental principles of the law as it applies to criminal justice and its administration. Emphasizes the legal concepts that criminal justice professionals should know. Examines the various sources of rules at the Federal and State levels.

**CJ 3140**
Corrections Law
3
* Prerequisite(s): CJ 1300 and University Advanced Standing

Teaches the law as it pertains to the corrections field. Examines civil liability and pertinent constitutional amendments as they relate to corrections covering the areas of probation, incarceration, and parole.
CJ 3270
Criminology
3
* Prerequisite(s): CJ 1010 and University Advanced Standing

Introduces the field of criminology, providing an overview of the issues involved in defining, measuring, and explaining crime. Examines the nature, extent, and general characteristics of criminal behavior and the potential causes of criminal offenses and offenders. Reviews early and contemporary theories which attempt to explain criminal behavior from a sociological, psychological, and biological perspective; the effectiveness of theories in explaining crime; theory integration and application of theory to selected issues as they relate to the modern world.

CJ 3300
Victimology
3
* Prerequisite(s): CJ 1010 and University Advanced Standing

Presents historic treatment and emerging roles of the crime victim in the criminal justice process. Investigates problems and dilemmas faced by crime victims and victimization risk factors. Studies systemic and societal creation of victims, relationships between victims and offenders, crime victim compensation, and reparations.

CJ 3320
Crime and Gender
3
* Prerequisite(s): CJ 1010 and University Advanced Standing

Involves an in-depth approach to the study of women in the criminal justice system from both a theoretical and practical perspective. Covers three main areas: 1) women as offenders; 2) women as victims; and 3) women as criminal justice practitioners.

CJ 3330
Financial Crimes Investigations
3
* Prerequisite(s): CJ 1340 or ACC 2010 or ACC 2110 and University Advanced Standing

Examines the complex world of financial crimes, money laundering, and the national and international standards for financial institutional compliance.

CJ 3340
Terrorism and the Criminal Justice System
3
* Prerequisite(s): University Advanced Standing and CJ 1010 or ACC 2010.

Examines the phenomena of radicalization and terrorism as they relate to the criminal justice system in America. Examines the various radical movements that have led to acts of terrorism, including jihadist extremists, animal rights and environmental extremist, as well as the white supremacist and domestic far-right extremist movement in America. Examines the role of law enforcement in counter terrorism efforts in the United States and law enforcement responses to terrorism. Examines the challenges of prosecuting, sentencing, and incarcerating terrorists, both domestic and international. Evaluates the movement of Countering Violent Extremism as a means to impede the pathway to terrorism.

CJ 3360
Prisons Contemporary Issues and Dilemmas
3
* Prerequisite(s): CJ 1010, ENGL 2010, and University Advanced Standing

Studies the history of the American prison system, targeting current issues and trends. Explores options for resolving current issues and attempts to understand and diagnose future trends and issues.

CJ 3400
Drugs and Crime
3
* Prerequisite(s): CJ 1010, ENGL 2010, and University Advanced Standing

Presents historical, economic, social, and political roles of legal and illegal drugs. Explains the drug contribution to crime and the impact that drugs have on the criminal justice system. Compares drug production and distribution systems. Illustrates efforts to combat the drug epidemic including decriminalization, prevention, and treatment.

CJ 4060
Special Problems in Criminal Justice WE
3
* Prerequisite(s): CJ 1010 and University Advanced Standing

Examines selected current issues and problems in criminal justice. Researches external factors related to the professions of police, courts, and corrections. Demonstrates functions of the criminal justice system through realistic situations and events.

CJ 4160
Constitutional Criminal Rights
3
* Prerequisite(s): CJ 1330, ENGL 2010, and University Advanced Standing

Studies decisions in leading U.S. Supreme Court criminal cases. Presents an overview of criminal procedure relating to constitutional amendment laws with a criminal justice emphasis. Discusses leading cases concerning constitutional rights and responsibilities.

CJ 4200
Ethical Issues in Criminal Justice
3
* Prerequisite(s): CJ 1010 and University Advanced Standing

Presents major ethical problems within the criminal justice system. Studies differences between moral decay and the ideal justice system. Uses an issue-based approach to solve individual, group and departmental ethical dilemmas.

CJ 4250
Criminal Justice Career Strategies
2
* Prerequisite(s): University Advanced Standing

Emphasizes the development of effective techniques for successfully locating, applying for and securing employment as well as advancing in a Criminal Justice related career path. Includes industry and job research, demonstration, role play, and application exercises. Should be taken during second semester junior year. Provides preparation for co-op/internship experience.

CJ 470G
Comparative Criminal Justice Systems
3
* Prerequisite(s): CJ 1010, and University Advanced Standing

Studies the implementation of criminal justice within the four major legal traditions and the cultural issues that influence its administration. Compares and contrasts the differences in interpretation of procedural and substantive law, policy-making, law enforcement, court systems, corrections, and juvenile justice with that of the United States.

CJ 475R
Current Topics in Criminal Justice
3
* Prerequisite(s): CJ 1010, University Advanced Standing, and Instructor Approval

Presents selected topics in Criminal Justice, Law Enforcement, and/or National Security and will vary each semester. Requires a special project related to the area of study. May be repeated with different topic areas for a maximum of 9 credits toward graduation.
Course Descriptions

CJ 481R Internship
1 to 12
* Prerequisite(s): University Advanced Standing
Provides actual, on-the-job work experience on a paying or non-paying (volunteer) basis in a criminal justice profession or other approved related situation. Emphasizes successful work experience, with emphasis on identifying and solving problems. May be repeated for a maximum of 12 credits toward graduation. May be graded credit/no credit.

CJ 487R Criminal Justice Field Experience
1 to 6
* Prerequisite(s): Junior or Senior status and University Advanced Standing
Provides students access to law enforcement agencies, prisons, detention centers, courts and institutions dealing with criminals and delinquents. Includes 2-3 weeks of intense classroom instruction, interviews, and lectures by practitioners in the field and several on-site visits of varying duration. Course may be repeated five times for a total of 6 hours of credit.

CJ 4880 Qualitative Research Methods in Criminal Justice
3
* Prerequisite(s): University Advanced Standing
Explores the methods of research used by criminal justice educators and practitioners. Introduces the application of basic research practices to law enforcement and corrections problems. Includes the use of American Psychological Association (APA) style.

CJ 491R Directed Reading and Special Projects
1 to 3
* Prerequisite(s): Junior or Senior status and University Advanced Standing
Offers independent study as directed in reading, individual projects, etc., at the discretion and approval of the department chair. May be repeated for a maximum of 9 credits.

CJ 4990 Criminal Justice Capstone Seminar
3
* Prerequisite(s): CJ 4880 and University Advanced Standing
Applies qualitative, quantitative, and/or mixed research methods to selected issues and dilemmas in criminal justice. Requires the student to develop and present an undergraduate research project both orally and in writing.

CJ 6200 Advanced Topics in Criminal Justice
3
* Prerequisite(s): Acceptance into Master's of Public Services program.
Evaluates contemporary issues in criminal justice, including current and historical concepts of criminal justice, interrelationships among different components of the system, and the role and function of the justice system in society. Develops philosophies of punishment, contemporary policing issues, courtroom decision making, and modern trends in corrections.

CJ 6210 Information-based Decision Making for Criminal Justice Administrators
3
* Prerequisite(s): Acceptance into Master's of Public Services program.
Describes contemporary criminal justice models and how data and information are critical to their success (Intelligence-led Policing, CompStat, Problem Oriented Policing, Community Policing, etc.). Builds crime analysis, crime maps, hot spots, intelligence models, and other data analysis from an administrative perspective in order to compile the tools, resources, and practices used around the world to assist in data-based decision making.

CJ 6220 Contemporary Issues In Criminal Justice
3
* Prerequisite(s): Acceptance into the Masters of Public Services Program
Evaluates developments and changes in the practice of criminal justice brought about by current issues such as terrorism, rapid technological change, police misconduct, active shooter response, police, and the media. Formulates effective policies and procedures using strategic planning to manage organizational change with the use of current management strategies and philosophies.

CJ 6230 Criminal Justice Policy
3
* Prerequisite(s): Acceptance into Master's of Public Services program.
Evaluates a conceptual approach to the creation, implementation, and evaluation of criminal justice policies. Constructs a framework for planning and formulating policy context now and in the future. Summarizes court decisions instrumental in criminal justice policies for police, courts, corrections, and juvenile justice.

Classical Studies (CLST)

CLST 290R Themes in Classical Civilizations
3
* Prerequisite(s): ENGL 1010 or ENGH 1005
Explores topics in Classical thought, literature, art, history and philosophy at an introductory level. Emphasizes understanding literature, history and archeological topics through translated primary and secondary sources. Focuses on the basic interpretive skills necessary to relate historical, cultural, and sociological data to classical societies. May be repeated for 6 credits toward graduation.

CLST 490R Special Topics in Classical Civilizations
3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Analyses literary, historical, archeological, religious and cultural texts and art work from Classical societies. Emphasizes understanding of the social,cultural and political forces which operate on a culture's writers, artists and major contributors. May be repeated with different topics for 6 credits toward graduation.

Construction Management (CMGT)

CMGT 1010 Introduction to Construction Management
3
WE
Presents an overview of the practice of construction management including heavy civil, commercial, and residential construction. Examines the 5 M's of Construction Management-Money, Machines, Materials, Manpower and Marketing. Introduces construction documents including 2D and 3D building information models (BIM). Utilizes guest lecturers, and field trips in addition to traditional classroom activities.

CMGT 1020 Construction Materials and Methods I
3
* Prerequisite(s): MAT 0950 or higher or appropriate test scores
Provides a basic knowledge of the materials and methods used in heavy civil, commercial, and residential construction projects. Includes lectures, site visits and laboratory work. Curriculum covers CSI Divisions 01-05. Lab access fee of $45 for computers applies.
CMGT 1150  
Construction Safety  
2  
Introduces OSHA safety practices and its role in the construction industry. Reviews related safety theories, procedures and practices used in the construction industry. Software fee of $5 applies. Lab access fee of $45 for computers applies.

CMGT 1190  
Concrete and Framing Lab  
3  
Offers applied learning experience in concrete and framing methods on a construction project. Course Lab Supply fee of $10 for materials applies.

CMGT 1220  
Finishing Lab  
3  
Offers lab experience in finishing methods and techniques on a construction project. Course Lab Supply fee of $10 for materials applies.

CMGT 2060  
Construction Job Site Management  
3  
* Prerequisite(s) or Corequisite(s): CMGT 2010 or CMGT 1020  
Covers the role and duties of job site managers of heavy civil and commercial construction projects. Includes documentation, time and cost control, jobsite layout and control, labor relations, conflict resolution, OSHA safety practices. Emphasizes the design and implementation of project safety plans. Focuses on project quality, productivity, cost control and safety management. Software fee of $5 applies. Lab access fee of $45 for computers applies.

CMGT 2080  
Principles of Construction Scheduling  
3  
* Prerequisite(s): CMGT 1010, CMGT 2010, and (CMGT 2035 or IM 2010)  
Provides fundamental skills required to plan and schedule civil and commercial construction projects. Familiarizes students with computer scheduling software packages used to monitor and control construction projects. Defines the sequencing, phasing, and critical path management of construction activities. Software fee of $5 applies. Lab access fee of $45 for computers applies.

CMGT 281R  
Internship  
1 to 6  
* Prerequisite(s): Department approval  
Provides on-the-job construction work experience. Includes student, employer, and coordinator evaluations, on-site work visits, written assignments, and presentations. Provides experience in writing and completing individualized work objectives that improve present work performance. May be repeated for a maximum of 6 credits toward graduation. May be graded Credit/No Credit.

CMGT 289R  
Construction Industry Seminar  
.5  
Provides the opportunity to hear professionals teach about unique aspects of the industry. Must be repeated twice for one credit for graduation, but may be repeated for a maximum of two credits.

CMGT 3010  
Construction Materials Testing  
3  
* Prerequisite(s): CMGT 1020 and (MAT 1010 or higher or EGDT 1600) and University Advanced Standing  
Investigates the general physical properties of construction materials and their common quality control/assurance tests conducted in the construction industry. Analyzes results of these tests and how they affect construction design. Emphasizes the performance of field and lab testing procedures used in heavy civil construction. Course Lab Supplies fee of $17 for materials applies.

CMGT 3020  
Building Envelopes and Mechanical Systems  
3  
* Prerequisite(s): CMGT 1010, CMGT 2035 or IM 2010, and University Advanced Standing  
Covers mechanical, electrical and plumbing (MEP) principles. Provides problem solving experience in the analysis and design of building envelopes and MEP systems used in construction applications. Software fee of $5 applies. Course fee of $10 for materials, transportation applies. Lab access fee of $45 for computers applies.

CMGT 3030  
Principles of Construction Estimating  
3  
* Prerequisite(s): CMGT 2035 or IM 2010, MAT 1010 or higher or EGDT 1600, and University Advanced Standing  
Introduces the preparation of detailed cost estimates based on contract models and documents. Includes the use of software for performing reliable quantity take-offs. Covers labor, material, and equipment pricing. Includes lectures and laboratory work. Software fee of $5 applies. Lab access fee of $45 for computers applies.

CMGT 3050  
Construction Equipment/Planning and Logistics  
3  
* Prerequisite(s): CMGT 2080, ACC 3000 (recommended) or (ACC 2010 and ACC 2020), and University Advanced Standing, or CMGT Instructor/Program approval for non-CMGT majors  
* Prerequisite(s) or Corequisite(s): CMGT 3030  
Introduces productivity, logistics and associated costs of heavy equipment required on a typical construction project. Emphasizes equipment used in heavy civil construction. Software fee of $5 applies. Lab access fee of $45 for computers applies.
Course Descriptions

CMGT 3060
Applied Statics and Strength of Materials
3
Prerequisite(s): (MATH 1060 or EGDT 1610) and University Advanced Standing
Introduces basic principles of statics, coplanar force systems, coplanar-nonconcurrent force systems, stresses and strains, properties of materials, shear and bending diagrams, and beam design. Explores materials used in construction projects.

CMGT 3080
Construction Financial Management
3
Prerequisite(s): ACC 3000 (Recommended) or (ACC 2010 and ACC 2020), and University Advanced Standing
Prerequisite(s) or Corequisite(s): CMGT 3030
Builds on basic principles of accounting and finance as utilized in the construction industry. Emphasizes labor burden, financial needs and decision tools, construction accounting systems, cash flow, profit and tax projections on construction projects. Software fee of $5 applies. Lab access fee of $45 for computers applies.

CMGT 3090
Principles of Hydrology in Construction Management
3
Prerequisite(s): (MATH 1060 or EGDT 1610) and University Advanced Standing
Prerequisite(s) or Corequisite(s): CMGT 3030
Prepares students to manage the behavior of water on construction projects. Includes intensity, duration and frequency curves and runoff, erosion control, storm drain systems, dewatering systems, environmental impacts, and stability of soils.

CMGT 3140
Construction Real Estate
3
Prerequisite(s): CMGT 3030 and Advanced University Standing
Prerequisite(s): CMGT 3030, Senior Standing, and University Advanced Standing
Explores the legal implications of ownership of real property as it relates to new construction and existing improvements. Includes the nature of real property, estates in land, transfer, encumbrances, restrictions, and contracts. Discusses ownership, settlement, taxation, finance, valuation and appraisal.

CMGT 3160
Building Information Modeling
3
Prerequisite(s): EGDT 1020 or CMGT Instructor/Program approval for non-CMGT majors and University Advanced Standing
Prerequisite(s): CMGT 3030, Senior Standing, and University Advanced Standing
Introduces 3D architectural models for cost estimating, clash detection, collaboration between multiple disciplines and documenting and quantifying project data. Covers model design theory, parametric modeling methods, generation of residential and commercial construction plans and details sufficient for cost estimating, building components and systems, and manipulation of model information. Software fee of $5 applies. Lab access fee of $45 for computers applies.

CMGT 4010
Construction Contracts
3
Prerequisite(s): ENGL 2010, CMGT 1010, Junior Standing, and University Advanced Standing, or CMGT Instructor/Program approval for non-CMGT majors
Prerequisite(s): CMGT 2080 or CMGT Instructor/Program approval for non-CMGT majors
Utilizes appropriate construction documents such as contracts, waivers, change orders, employee documents and specifications.
Addresses the dispute process in the United States and the contractual relationship associated with construction project delivery methods.

CMGT 4020
Construction Project Management
3
Prerequisite(s): (CMGT 2080 or CMGT Instructor/Program approval for non-CMGT majors) and University Advanced Standing
Prerequisite(s) or Corequisite(s): CMGT 3030, Senior Standing, and University Advanced Standing
Introduces best management practices in the construction industry pertaining to resource optimization. Utilizes construction planning and problem solving tools on real world construction issues. Identifies and quantifies waste in the industry and determines appropriate methods to eliminate such. Discusses lean philosophy and its impact on construction projects and the industry. Lab access fee of $45 for computers applies.

CMGT 405G
Global Sustainability and the Built Environment GI WE
3
Prerequisite(s): CMGT 2060 and Construction Management majors, or CMGT Instructor/Program approval for non-CMGT majors; and University Advanced Standing
Prerequisite(s): CMGT 3080, CMGT 4010
Designed for senior Construction Management and related majors. Involves execution of a construction project case simulation covering all aspects of construction management for either heavy civil, commercial or residential projects. Engages students with local representatives from the construction industry. Requires a written project report and oral presentations. Software fee of $5 applies. Lab access fee of $45 for computers applies.

CMGT 4500
Senior Capstone
3
Prerequisite(s): CMGT 2060, CMGT 2080, CMGT 3030, Senior Standing, and University Advanced Standing
Prerequisite(s) or Corequisite(s): CMGT 3080, CMGT 4010
Provides exposure to emerging technologies and topics of current interest in Construction. Varies each semester depending upon the state of technology. May be repeated for a maximum of 6 credits toward graduation.

CMGT 481R
Internship
1 to 4
Prerequisite(s): Department approval and University Advanced Standing
Prerequisite(s): Declared CMGT major and University Advanced Standing
Provides application of classroom theory while working as an employee in the construction industry. Requires communication of personal goals, tracking performance and work hours with the employer. Credit is determined by the number of hours a student works during the semester and completion of individually set goals. May be repeated for a maximum of 4 credits toward graduation. May be graded credit/no credit.

CMGT 489R
Undergraduate Research in Construction
1 to 3
Prerequisite(s): Department approval and University Advanced Standing
Prerequisite(s) or Corequisite(s): CMGT 3030, Senior Standing, and University Advanced Standing
Provides the opportunity to conduct research under the mentorship of a faculty member. Practices the theoretical knowledge gained in prior major courses. Creates a significant intellectual or creative product that is characteristic of the construction discipline and worthy of communication to a broader audience. May be repeated for a maximum of 3 credits toward graduation.
CMGT 497R
Independent Study
1 to 3
* Prerequisite(s): Approval of Construction Technologies Department Chair and University Advanced Standing

Offers independent study as directed in reading or individual projects at the discretion and approval of the department chair. May be repeated for a maximum of 6 credits toward graduation.

Clin Mental Health Counseling (CMHC)

CMHC 6000
ACA Ethics
3
* Prerequisite(s): Admission to Clinical Mental Health Counseling, M.S. program

Explores the roles and functions of a professional counselor and the ethical standards that govern the profession. Provides a foundation for the ethical practice of professional Counseling. Introduces students to the history of the Counseling profession as well as professional roles (practitioner, supervisor, educator, etc.) and professional organizations. Examines and applies the American Counseling Association (ACA) Code of Ethics (and ethical standards of its divisions) to a variety of ethical and legal situations using a variety of ethical decision-making models.

CMHC 6010
Theories of Counseling
3
* Prerequisite(s): Admission to Clinical Mental Health Counseling, M.S. program or Master of Education in School Counseling, M.S. program

Introduces basic Counseling and psychotherapeutic theories and associated techniques. Provides a survey of models and theories consistent with current research (evidenced-based) and practice in the Counseling profession. Analyzes approaches including psychoanalytic, individual psychology, person-centered, existential, cognitive-behavioral, Gestalt, family systems, and postmodern theories. Examines the influence of sociocultural and historical factors on the development of Counseling theories.

CMHC 6020
Techniques of Counseling
3
* Prerequisite(s): Admission to Clinical Mental Health Counseling, M.S. program or Master of Education School Counseling, M.S. program

Analyzes the theoretical approaches to Counseling which have been demonstrated to be culturally-relevant and conceptually inclusive of multiple theories and techniques: Advanced Cognitive Behavioral Therapy techniques will be emphasized (other techniques will also be explored). Emphasizes selected readings, academic discussion and clinical application. Requires critical thinking and active participation. Applies theoretical information towards a goal of case conceptualizations as a precursor to effective treatment planning.

CMHC 6030
DSM Diagnostics
4
* Prerequisite(s): Admission to Clinical Mental Health Counseling, M.S. program

Provides an overview of the major disorders in the current edition of the DSM. Examines a range of mental disorders from adjustment disorders to serious psychopathologies, and includes an overview of the etiology, developmental course, multiaxial diagnosis, treatment planning, and policy/advocacy issues associated with various disorders to address socially responsible practice. Addresses biological, environmental, cultural, intrapersonal, and interpersonal risk and protective factors, along with the sociocultural and theoretical critiques of limitations of diagnosis and the DSM.

CMHC 6040
Professional Orientation
3
* Prerequisite(s): Admission to Clinical Mental Health Counseling, M.S. program

Provides a detailed exploration of the field of mental health counseling. Offers inquiry into the nature of the profession, including the professional organization and why many professionals join them. Describes the usual career trajectories of mental health counselors across various disciplines. Requires student development of a career plan and specialization-appropriate resume. Orient students to the requirements for their internship and practica.

CMHC 6050
Career Counseling
3
* Prerequisite(s): CMHC 6000, CMHC 6010, CMHC 6020, CMHC 6030, and Admission to Clinical Mental Health Counseling, M.S. program

Introduces students to the concepts of career development. Presents the philosophical and historical foundations of career Counseling. Applies career Counseling theory to practice. Includes career Counseling technique, career assessment, career exploration, job market strategies, examination of workplace issues, and lifestyle and wellness concepts.

CMHC 6060
Psychological Assessment
3
* Prerequisite(s): CMHC 6010, CMHC 6020, and Admission to Clinical Mental Health Counseling, M.S. program or Master of Education in School Counseling, M.S. program.

Provides an introductory overview of assessment methods, instrumentation, and basic principles of measurement. Reviews techniques for assessing intellectual ability, aptitude/ achievement, psychopathology, emotion, and personality. Includes clinical assessment, communicating results, multicultural considerations, and ethical/ legal issues. Orient students to common instruments used in educational and clinical settings, common selection procedures, measurement methods, administration, scoring, and interpretation.

CMHC 6070
Group Counseling
3
* Prerequisite(s): CMHC 6010, CMHC 6020, CMHC 6030, and Admission to Clinical Mental Health Counseling, M.S. program or Master of Education in School Counseling, M.S. program

Provides an introduction to many of the important challenges facing group leaders and group members in contemporary society. Discusses ethical guidelines particular to group work. Exposes students to how common Counseling theories can be applied in group settings. Provides an understanding of group developmental stages and processes, and how these dynamics influence group growth and productivity. Emphasizes leader skill development. Includes approximately 20 hours of class time spent in a laboratory experience wherein each student is provided the opportunity to function in a group.
Course Descriptions

CMHC 6080
Eastern Counseling Approaches
3
* Prerequisite(s): CMHC 6000, CMHC 6010, CMHC 6020, CMHC 6030, and Admission to Clinical Mental Health Counseling, M.S. program

Explores the new trends in the field of counseling around mindfulness and meditation interventions. Discusses the history and background of each approach embedding them in their original frame. Facilitates critique of utilizing techniques divorced from original intent. Practices the intended form of these modes of being. Encourages model and psychotherapeutic interventions expanding the usual analytic frame.

CMHC 6090
Psychopharmacology
3
* Prerequisite(s): CMHC 6000, CMHC 6010, CMHC 6020, CMHC 6030, and Admission to Clinical Mental Health Counseling, M.S. program

Explores the principles of psychopharmacology from a practitioner-oriented frame. Introduces the basic principles and concepts behind the types and purposes of various psychoactive substances. Provides neurochemical and biological models appropriate to non-physicians. Presents the mechanisms of action and the relationships between various drugs in the mental health field.

CMHC 6100
Crisis Management
3
* Prerequisite(s): CMHC 6000, CMHC 6010, CMHC 6020, CMHC 6030, and Admission to Clinical Mental Health Counseling, M.S. program

Provides an overview of the types of crises mental health practitioners may involve themselves with, including natural disasters, terrorism, crime, suicide, and homicide. Discusses the research on responses to these types of traumas and some of the mental health conditions that may arise due to such experiences. Provides models of treatment for acute and chronic crises, including both systemic and organizational interventions as well as individual psychotherapeutic interventions.

CMHC 6110
Research Methods
3
* Prerequisite(s): CMHC 6000, CMHC 6010, CMHC 6020, CMHC 6030, and Admission to Clinical Mental Health Counseling, M.S. program

Provides a conceptual understanding of research design and application. Offers an overview of research principles and methodology including qualitative and quantitative approaches and analysis. Enables students to become better, more critical consumers of research projects, methods, and designs. Prepares students to apply relevant research to their clinical practice.

CMHC 6120
Addiction Counseling
3
* Prerequisite(s): CMHC 6010, CMHC 6020, and Admission to Clinical Mental Health Counseling, M.S. program or Master of Education-School Counseling Emphasis program

Introduces relevant theory, research, and practice associated with substance abuse and addictions Counseling. Presents a blend of didactic and practical elements to increase student knowledge of fundamental concepts while providing opportunities to experiment with approaches to working with clients presenting with substance abuse and / or addictions concerns. Explores topics that include pharmacological issues and terminology, models of addiction, theories on etiology, diagnosis and assessment, and evidence-based treatment strategies. Requires students to practice the introductory concepts of Motivational Interviewing in a practicum element that will accompany lectures, group discussion, case studies, and demonstrations over the course of the semester.

CMHC 6130
Multicultural Counseling
3
* Prerequisite(s): CMHC 6000, CMHC 6010, CMHC 6020, CMHC 6030, and Admission to Clinical Mental Health Counseling, M.S. program

Exposes students to various cultures and the methods, values, and beliefs that organize family life and human development. Utilizes the oppression model to examine how the intersections of race, class, culture, gender, ethnicity, and sexuality shape and affect the lives of individuals and families and the therapeutic process itself. Explores intervention practices, social advocacy models, and resistance strategies.

CMHC 6140
Program Evaluation
3
* Prerequisite(s): CMHC 6010, CMHC 6020, and Admission to Clinical Mental Health Counseling, M.S program or Master of Education-School Counseling Emphasis program

Introduces research methods and program evaluation as it pertains to the field of professional Counseling. Explores major research designs including both quantitative and qualitative methods. Discusses research procedures, such data collection, sampling, and data analysis, and issues related to validity, reliability, and limitations of different approaches. Examines the history and development of program evaluation and provides an introduction to needs assessment in regard to program development, data collection methodology, and data analysis. Reviews ethical and culturally relevant strategies for interpreting and reporting the results of research and program evaluation studies.

CMHC 6150
Cognitive Therapies
3
* Prerequisite(s): CMHC 6000, CMHC 6010, CMHC 6020, CMHC 6030, and Admission to Clinical Mental Health Counseling, M.S. program

Explores the principles of cognitive-behavioral theory, conceptualization, and psychotherapy techniques. Provides a framework for assessing and treating child and adult clinical problems from the perspective of cognitive#behavioral treatment approaches that have been empirically supported. Presents several assessment strategies including behavioral observation, self#report, self# monitoring, and structured interviews and rating scales. Stresses the important link between assessment and treatment planning, and evaluating treatment outcome. Explores the advantages and disadvantages of techniques discussed within a developmental framework. Emphasizes the assessment of anxiety, depression, addictive behaviors, social skills, and marital dysfunction.
CMHC 6160
Human Development
3
* Prerequisite(s): CMHC 6010, CMHC 6020, and Admission to Clinical Mental Health Counseling, M.S. program or Master of Education in School Counseling, M.S. program

Provides an overview of various models and theories in the discussion of the characteristics, developmental needs, and tasks at different stages of a person’s life cycle. Discusses the impact of social, cultural, biological, and psychological factors on prenatal life, childhood, adolescence, adulthood, and aging. Explores the psychosocial development, cognitive functioning, life transitions, coping and adaptation, work and retirement, bereavement, and related issues in a person’s life cycle in relation to students' work as counselors.

CMHC 671R
Practicum
3
* Prerequisite(s): CMHC 6000, CMHC 6010, CMHC 6020, CMHC 6030, and Admission to Clinical Mental Health Counseling, M.S. program

Provides a forum for students to attain supervised clinical experience in which the students develop basic Counseling skills and integrate professional knowledge. Requires students to complete 100 hours of field training in a clinical mental health setting, including attaining 40 direct hours through both individual and group Counseling. Provides students with individual supervision by faculty and group supervision in seminar which is designed to be responsive to students' practicum experiences and concerns for their clients and sites. Evaluates students’ ability to apply Counseling theories and techniques, assessment and diagnostic information, clients’ characteristics in case conceptualization, and treatment planning. Provides peer support and consultation. Must be taken twice to complete 320 hours. May be repeated for a maximum of 12 credits toward graduation.

CMHC 689R
Internship
3
* Prerequisite(s): CMHC 671R taken until 300 practicum hours completed and Admission to Clinical Mental Health Counseling, M.S. program

Provides a forum for students to attain clinical experience in which they develop more advanced counseling skills and integrate course knowledge into their work. Requires that this course is repeated until students complete 800 or more hours in a clinical setting in which they provide 320 hours of direct service. Requires attendance to a one hour per week on-campus group supervision, in addition to the individual and group supervision provided at their internship site. Assists student practice of their clinical skills particularly case conceptualization, treatment planning, and treatment implementation. May be repeated for a maximum of 12 credits toward graduation.

CNST 2600
Comparative Constitutionalism
3
* Prerequisite(s): POLS 1000 or POLS 1100

Compares and contrasts the political, social and economic aspects of the origins, drafting, and development of constitutions across the globe.

CNST 2670
Constitutional History to Plessy 1896
3
* Prerequisite(s): University Advanced Standing

Examines the United States Constitution as the political and constitutional origins, drafting, and development of the Constitution, from the English Charter of Liberties in 1100 AD to the drafting and ratifying of the Constitution.

CNST 3870
Constitutional History Since Plessy 1896
3
* Prerequisite(s): University Advanced Standing

Examines the political and constitutional foundations of the American Constitution, from the English Charter of Liberties in 1100 AD to the United States Bill Rights of 1791. Examines a comparative analysis of early Anglo-American constitutional thought, with special attention being given to the writings of prominent 18th century and 19th century constitutional theorists (e.g., Coke, Bacon, Burke, Penn, Dickinson, Mason, Adams, Madison, Marshall).

CNST 4730
Framing of the US Constitution
3
* Prerequisite(s): CNST 4720 and University Advanced Standing

Examines the political and constitutional arguments of the Framers of the Federal Constitutional Convention. Discusses the strengths and weaknesses of the Constitution and the alternative language and plans presented at the Convention. Examines the ratification of the Constitution, focusing on the Anti-Federalists' critique and the Federalists' defense of that historic document. Employs a critical analysis of the political factors affecting the drafting and ratifying of the Constitution.

CNST 4790
US Constitution
3
* Prerequisite(s): (POLS 1000 or POLS 1100) and University Advanced Standing

Examines the United States Constitution as the political blueprint of American national government. Explores the basic constitutional powers and structures of the federal government and the prominent political and constitutional conflicts among its executive, legislative, and judicial branches. Addresses such key elements of constitutional design as limited and empowered government, enumerated and implied powers, separation of powers, checks and balances, federalism, and the Bill of Rights. Employs a critical analysis of modern constitutional politics.

CNST 4795
Civil Rights and Civil Liberties
3
* Prerequisite(s): CNST 4790 and University Advanced Standing

Examines, with a critical lens, the political and constitutional aspects of the origins, drafting, and development of The Bill of Rights, the Modern Civil Rights Movements, and the Ninth, Tenth, Thirteenth, Fourteenth, Fifteenth, and Nineteenth Amendments to the Constitution.
Course Descriptions

CNST 490R
Issues and Topics in Constitutional Studies
3
* Prerequisite(s): (POLS 1000 or POLS 1100) and University Advanced Standing
Surveys a specific topic in constitutional studies. Topic varies each semester. With the approval of the department chair or coordinator, students may repeat the course for a maximum of 9 credits toward graduation.

CNST 491R
Independent Study
1 to 4
* Prerequisite(s): (POLS 1000 or POLS 1100), Instructor Approval, and University Advanced Standing
Provides independent study for students unable to secure a desired course subject matter within regular curriculum offerings. Requires student and instructor design and complete readings and other projects at the upper division level, with the approval of the department chair or coordinator. May be repeated for a maximum of 8 credits toward graduation.

Communication (COMM)

COMM 1020
Public Speaking
HH
3
Provides an introduction to basic concepts, theories, principles of oral communication as applied to a variety of speaking situations. Develops competence in oral communication through performance, as applied to critical thinking skills, arrangement of ideas, and use of evidence and reasoning to support claims. Explains how culture influences the perception of effective public speaking. Canvas Course Mats of $101/VitalSource applies.

COMM 1050
Introduction to Communication SS
HH
3
Surveys the questions, methods, and findings in the discipline of speech communication. Explores communication theory and practice across a variety of contexts and forms, including verbal, non-verbal, interpersonal, group, organization, and mass communication. Canvas Course Mats $55/Sage applies.

COMM 1130
Writing for the Mass Media
3
Acquaints students with the fundamentals of mass communication, especially the skills of information-gathering and writing for the mass media. Emphasizes print journalism but also considers broadcasting, legal and ethical issues, and public relations. Emphasizes writing for the media and AP style. Focuses on journalistic writing forms.

COMM 1500
Introduction to Mass Communication
HH
3
Introduces students to the study of American mass media. Provides a critical overview of the main themes in the study of mass media, including the historical development of the media; the social, political, economic, and organizational contexts, impacts, and significance of the media; the nature of media content; its complex relationships to mass audiences; and the legal/regulatory context in which the media operate.

COMM 1610
Reporting for the Mass Media
3
Provides an opportunity to learn about a career in journalism. Focuses on gathering and organizing information in the field. Includes interviewing, covering a beat, investigative reporting, reviews, and opinions. Simulates a journalist's working experience. Offers experience covering current events in the field. Lab access fee of $20 applies.

COMM 202R
Communication Field Experience
1 to 3
* Prerequisite(s): Instructor Approval
Explores a wide variety of topics in public relations, mass media, journalism, and speech communication. May be repeated for a maximum of 6 credits toward graduation.

COMM 207G
Introduction to Gender and Communication
3
Introduces students to the study of gender differences and similarities in communication. Provides practical understanding and skills useful for more effective communication within and across gender boundaries. Addresses gender and communication issues across multiple cultural contexts, including issues beyond mainstream groups and United States culture.

COMM 2100
The News Editing Process
3
Introduces news judgment, content, and journalistic best practices. Prepares students to properly edit documents for publication through rewriting faulty stories, copy editing, and proof-reading. Includes instruction on how to create appropriate headlines and general page layouts. Lab access fee of $20 applies.

COMM 2110
Interpersonal Communication
SS
3
Examines the role of communication in interpersonal relationships. Includes the history of interpersonal communication research and theory and applications such as negotiation, conflict management, listening, and assertiveness.

COMM 2115
Introduction to Health Communication
HH
3
Provides an introduction to and a foundation for the important area of health communication. Covers persuasion theories as applied to health communication research. Examines the history of medicine and healthcare. Describes patient to caregiver interaction.

COMM 2120
Small Group Communication and Decision Making
3
Provides an overview of the communication processes involved in small-group interactions. Covers theories of leadership, decision-making, and problem-solving through group activities. Canvas Course Mats $66/McGraw applies.

COMM 217G
Race Class and Gender in U S Cinema Gl
HH
3
* Prerequisite(s): ENGL 1010 or ENGH 1005
R Raise cultural awareness through aesthetic, critical, and interdisciplinary examination of the evolution of the representation of race, class, and gender in American cinema. Focuses on both Hollywood and independent minority filmmakers. Some films screened may carry an "R" rating.

COMM 2250
Principles of Advertising
3
Introduces the basics of advertising research, strategy, creative execution, and media strategy. Canvas Course Mats of $78/McGraw applies.

COMM 2270
Argumentation
3
Examines the study of argument. Emphasizes reasoning, evidence, analysis, evaluation, audience analysis, and application of arguative skills.

COMM 2300
Introduction to Public Relations and Strategic Communication
3
* Prerequisite(s): ENGL 1010 or ENGL 101H or ENGH 1005
Introduces the basics of writing for the media, designing corporate literature, and working with the public and key stakeholders on behalf of a business, organization, and/or individual. Canvas Course Mats $51/Sage applies.

COMM 2400
Organizational Communication
3
Teaches how communication processes affect organizations. Applies theory to organizational analysis. Utilizes dialogue and network analysis to improve organizational values and performance.
COMM 2510  
Visual Strategies for Communication Majors  
3  
Teaches strategies to visually align public relations with a company's brand using contemporary digital software. Provides understanding of visual strategies and effective design practices. Creates a literacy of visual communication tools and strategies for articulating a vision to audiences using well-established web design techniques. Lab access fee of $20 applies.

COMM 2790  
Magazine Writing  
3  
Focuses on non-fiction writing for magazine consumption. Teaches how to research and write long investigative feature articles. Includes analysis of the early magazine industry, contemporary issues in the magazine industry, and in-depth reporting on special topics, such as science, politics, culture, and society, education, environment, and international affairs. Lab access fee of $20 applies.

COMM 290R  
Independent Study  
1 to 3  
* Prerequisite(s): Departmental Approval  
For qualified students who wish to undertake a well-defined project or directed study related to an area of special interest. Requires individual initiative and responsibility. Includes limited formal instruction and faculty supervision. Includes projects such as writing a publishable paper, creating a portfolio of published news articles, producing an annotated bibliography, oral or multimedia presentation, or other options as approved by the instructor. May be repeated for a maximum of 3 credits toward graduation.

COMM 3020  
Communication Research Methods WE  
3  
* Prerequisite(s): University Advanced Standing  
Covers basic communication research methods in both quantitative and qualitative research. Focuses on the research process and discusses the methodological tools for understanding and conducting basic communication research. Includes examples based on research and promotes awareness of the importance of quantitative and qualitative research perspectives as well as data collection and analytical procedures.

COMM 3025  
Introduction to Qualitative Communication Research  
3  
* Prerequisite(s): University Advanced Standing  
Reviews methods of qualitative data collection, including ethnography, interviewing, observation, and textual analysis. Explores a variety of methods of qualitative analysis including rhetorical, interpretive, and critical analyses. Prepares students for careers in the fields of user-experience research, organizational research, communication consulting, and graduate research in the field of communication.

COMM 3030  
Media Literacy  
3  
* Prerequisite(s): University Advanced Standing  
Explores the concept of media literacy and how individuals can become more knowledgeable citizens when analyzing and evaluating messages disseminated from a wide variety of media outlets.

COMM 3040 (Cross-listed with: PHIL 3040)  
Media Ethics  
3  
* Prerequisite(s): University Advanced Standing  
Covers ethical issues in media communication. Includes discussions of ethnicity, gender, nationalism, and conflict. Analyzes development of moral agency. Examines tensions between individual freedoms and social responsibilities. Addresses ethical questions in the context of current struggles within and over corporate and public media.

COMM 3110 (Cross-listed with: ENGL 3110, THEA 3110)  
Non Fiction Cinema History  
3  
* Prerequisite(s): University Advanced Standing  
Surveys the history of non-fiction/documentary film from 1896 to the present. Includes study of early pioneers from Flaherty's NANOOK OF THE NORTH to the current trend of reality television and popular documentaries. May screen some films which carry an "R" rating.

COMM 3115  
Communicating in Environments  
3  
* Prerequisite(s): University Advanced Standing  
Explores how people use communication to navigate both social and natural environments. Investigates social and small group communication; specifically, how small groups are created, what role(s) they play in life. Considers how our culture communicates about the natural world: how do we define nature, who communicates for nature, and how does nature behave as a stakeholder in environmental conflicts. Occurs at the Capitol Reef Field Station, which allows for an experiential application of the theories of small-group and environmental communication. Focuses on the experience and application of the literature of the discipline to create an integrated-learning opportunity.

COMM 3120  
Fundamentals of New and Social Media  
3  
* Prerequisite(s): University Advanced Standing  
Examines contemporary issues related to social media, including the impact of such media on journalism and society, social media effects, and new media campaigns. Investigates the relationship between government policy and social media in relation to issues such as the digital divide, net neutrality, and the use of social media to sustain protests and revolutions. Software fee of $20 applies.

COMM 3130  
The Culture of Nature and Technology  
3  
* Prerequisite(s): University Advanced Standing  
Analyzes the cultural construction of nature and technology from historical, interpretive, and critical perspectives. Deconstructs the nature/culture dichotomy. Critiques the neutrality of technology thesis. Explores the political and social implications of representations of, and relations to, nature and technology.
COMM 3140
Social Media Content Creation Strategy
3
* Prerequisite(s): University Advanced Standing

Develops critical thinking skills used for social media content creation, strategy, and management. Focuses both on the theoretical and practical foundation of persuasive/informative social media communication and campaigns. Covers a mix of apps, tools and techniques used by professionals to organically use social media to build a brand’s community and reputation. Uses a communication/public relations lens. Software fee of $45 applies.

COMM 314G (Cross-listed with: ENGL 314G, THEA 314G)
Global Cinema History
3
* Prerequisite(s): (ENGL 2150 or THEA 1023) and University Advanced Standing

Studies the evolution of global film styles, movements, stars, and genres with a focus on international cinema chronologies outside the United States. Some films screened may be considered controversial and carry an “R” rating.

COMM 3160
Social Media Analytics
3
* Prerequisite(s): University Advanced Standing

Provides methods in which social media activity data is obtained and subsequently measured. Examines common metrics that are used to evaluate the effectiveness of social media campaigns. Explores how social media, as a medium, can be properly evaluated in terms of valuation and return on investment. Critiques and analyzes current and past social media campaigns in order to better understand how metrics can help to modify social media strategy and tactics. Applies the associated theoretical concepts via hands-on activities using contemporary social media content management tools and analytic software. Software fee of $45 applies.

COMM 317G
Ethnographic Methods for Communication Research
3
* Prerequisite(s): University Advanced Standing

Provides an examination of concepts and methodologies used to conduct ethnographic research. Discusses the critical study of cultural processes; the approaches to ethnographic research; and the relationship among ethnographic evidence (fieldwork), interpretation, and representation.

COMM 319G
Intercultural Communication Encounters
3
* Prerequisite(s): COMM 1050 and University Advanced Standing

Promotes awareness of the role of competent communication in intercultural awareness and sensitivity. Reviews classical and current definitions of culture and describes their general characteristics, with specific focus on the issue of cultural diversity. Describes the components and process of intercultural communication including perception and motivation. Provides an overview of differences and similarities in verbal and nonverbal intercultural communication. Identifies guidelines for achieving intercultural communication competence.

COMM 3290
Photojournalism
3
* Prerequisite(s): University Advanced Standing

Covers the fundamental skills and principles of gathering news with a camera. Demonstrates how students can improve the way they see information for distribution via the mass media. Allows students to articulate how they feel about images and describe why such images work well or poorly for publication. Lab access fee of $20 applies.

COMM 332G (Cross-listed with: MGMT 332G)
International Business Communication
3
* Prerequisite(s): University Advanced Standing

Reviews various aspects of today’s international business environment from a business communication perspective. Overviews critical elements that arise from the various cultural backgrounds which can impact both domestic and international organizations. Focuses on the development and refinement of goals-driven, receiver-centric approach to communication. Considers topics such as managerial communication, negotiations, and cultural change.

COMM 3410
Fundamentals of Mediation and Negotiation
3
* Prerequisite(s): University Advanced Standing

Teaches students to understand and participate knowledgeably on a basic level in the processes of mediation and negotiation. Emphasizes conceptual knowledge of both processes and improves practical skills and effectiveness as a mediator and negotiator. Uses an interactive-workshop format that blends theory with simulated class role-play.

COMM 3420 (Cross-listed with: BESC 3420)
Communication and Conflict
3
* Prerequisite(s): (COMM 3410 or COMM 2110) and University Advanced Standing

Studies contemporary theories of conflict and communication. Analyzes the roles of culture, gender, personal, and organizational ethics in conflicts and disputes. Covers the nature of conflict and teaches methods of negotiation, mediation, and conflict resolution with an emphasis on collaborative problem-solving. Canvas Course Mats $45/McGraw applies.

COMM 350R
Special Topics in Communication
3
* Prerequisite(s): University Advanced Standing

Presents selected topics in communication that will vary from semester to semester. May be repeated with different topics for a total of 9 credits toward graduation.

COMM 3510
Visual Communication Theory
3
* Prerequisite(s): University Advanced Standing

Explores the physio-psychological bases of perception, cognition, semiotics, aesthetics, and history that lead to realization of visual messages within the context of communication. Discusses the ethical dimensions of visual image-making and critiques contemporary visual images across all mass media.

COMM 3520
Public Relations and Strategic Communication Case Studies
3
* Prerequisite(s): COMM 2300 and COMM 3020 and University Advanced Standing

Examines public relations and strategic planning process through the analysis of case studies. Addresses strategic communication planning issues in media relations, crisis communications, ethics, creative planning, research, and evaluation, using real-world situations and clients. Software fee of $45 applies.

COMM 3530
Public Relations and Strategic Communication Writing
3
* Prerequisite(s): University Advanced Standing

Develops skills in persuasive writing for institutional or individual clients. Provides a hands-on experience in applying public relations and strategic communication writing tools for corporate, non-profit, government, and/or integrated communication organizations. Covers writing for the media, designing and writing corporate literature, and working with the public on behalf of a business, organization, and/or individual as it relates to public relations and strategic communication. Lab access fee of $20 applies. Software fee of $45 applies.
COMM 3540
Sports Public Relations
3
* Prerequisite(s): University Advanced Standing

Examines the history of sports communication for public relations. Spotlights sports communication key influencers. Highlights the skills necessary to effectively communicate in a changing sports marketplace. Exposes students to how public relations, social networking, corporate involvement, and mass media continue to shape a dynamic field that remains a top choice for creative communication professionals across the globe. Incorporates students' sports-writing skills as they learn the execution of sports digital media plans, media conferences, and media availability.

COMM 3560
Public Relations Event and Media Coordination
3
* Prerequisite(s): University Advanced Standing

Examines the process of event coordination as it relates to public relations and media management. Reviews the history of festivals and events. Provides an understanding of the concepts of project coordination, strategic planning, and strategic vision within event coordination. Explores media management within event coordination for events that include award shows, film festivals, government press conferences, sporting events, fundraisers, promotional events, and more. Explores public-relations careers within event coordination and helps students create, develop, manage, execute, and evaluate an event from a public-relations approach. Software fee of $45 applies.

COMM 3570
Crisis Communication
3
* Prerequisite(s): University Advanced Standing

Provides a broad theoretical and practical understanding of crisis communication and risk assessment. Examines recent cases to determine what constitutes a crisis. Examines causes of organizational crises, how to avoid these crises, and what to do when a crisis hits. Evaluates communicative channels and messages, including new media, and develops strategies to prepare and manage a crisis situation.

COMM 3580
Fashion Public Relations and Strategic Communication
3
* Prerequisite(s): University Advanced Standing

Provides students with an understanding of professional public relations practices for the fashion industry. Explores strategies for creating and executing publicity campaigns for unique areas of fashion print design, haute couture, shows, labels and designers, merchandising, influencers, and the role of social media in fashion. Includes the application of a two-way symmetrical model approach as part of Grunig and Hunt's four models of public relations theory. Includes lecture, reading assignments, guest speakers in the fashion industry and possible field trips to course events.

COMM 362G
International Communication
3
* Prerequisite(s): COMM 3020, COMM 3050, and University Advanced Standing

Introduces theories of international communication. Covers different systems of the press in different countries. Analyzes specific case studies in international media.

COMM 3660
Investigative Reporting
3
* Prerequisite(s): University Advanced Standing

Explores news and information in a democratic framework. Develops interview techniques, public record use, fact-checking, and electronic data access in relation to complex social issues.

COMM 3680
Advertising Media Planning
3
* Prerequisite(s): University Advanced Standing

Teaches the process of media planning. Covers procedures, issues, and methods of evaluation. Takes a problem-solving approach, oriented to targeting particular audiences in appropriate ways.

COMM 3690
Creative Strategy in Communication Campaigns
3
* Prerequisite(s): University Advanced Standing

Prepares students for careers in public relations, journalism, and communication by exploring the role of research, copywriting, design, and media structures in developing persuasive messages. Emphasizes execution of creative strategies that are appealing to the intended audience, consistent with communication objectives, and formatted correctly for the media in which they are implemented.

COMM 3700
Free Expression in a Democratic Society
3
* Prerequisite(s): University Advanced Standing

Examines the role of the free speech and free press clauses of the First Amendment of the U.S. Constitution from legal, ethical, political, and pragmatic perspectives. Covers basic rules governing the media (advertisers, newspapers, public relations specialists, and electronic media) and individuals. Includes analysis of court decisions, executive orders, administrative rules, and legislation intended to limit or regulate speech and examples of people/organizations who have challenged these rules.

COMM 3780
Mormons Media and Culture
3
* Prerequisite(s): University Advanced Standing

Examines the intersection of media, popular culture, and Mormonism. Analyzes the social construction of Mormonism through representations in the media, official and unofficial LDS discourse, folklore, material culture, and history. Discusses cultural theories of race, gender, orientalism, and tribalism.

COMM 3790
Case Studies in Journalism
3
* Prerequisite(s): University Advanced Standing

Examines historically significant examples of the press in action from historical, ethical, and critical perspectives. Lab access fee of $20 applies.

COMM 401G
Communication Education
3
* Prerequisite(s): University Advanced Standing

Discusses the various principles and objectives related to communication education and instructional communication. Offers experience in the role of speech lab mentor.

COMM 4110
Interpersonal Communication Theory and Research
3
* Prerequisite(s): University Advanced Standing

Surveys current interpersonal research. Explores the interrelated nature of theory and research. Provides the foundational knowledge required to critically assess current research in the field. Creates an opportunity to systematically explore a personal area of interest within the area of interpersonal communication.
COMM 4115
Advanced Health Communication
3
* Prerequisite(s): University Advanced Standing
Examines how persuasion, interpersonal, and organizational theories impact patient-provider communication. Examines the role of technology in healthcare contexts. Examines the impact of the mass media in health sense-making and decision-making.

COMM 4120
Group Communication
3
* Prerequisite(s): University Advanced Standing
Extends understanding of group operation and experience through current theory and research studies. Provides experiential activity of working in class groups. Enables students to study groups in their social environments, investigate real-world group policy, and discover the benefits of viewing groups as having stable yet permeable boundaries.

COMM 4125
Applied Survey Research
3
* Prerequisite(s): University Advanced Standing
Provides the students with knowledge and skills for conducting applied survey research. Focuses on how to search for previous research, formulation of research questions and hypotheses, primary communication survey research methods and their uses, descriptive and inferential statistical analyses of data, interpretation of statistical findings, and the development of a group-based research paper. Develops students' ability to both consume and produce research.

COMM 4170
Contemporary Issues in Organizational Communication
3
* Prerequisite(s): University Advanced Standing
Provides an introduction, overview, and in-depth look at the role of communication in contemporary organizations. Demonstrates the importance and challenges of communication within organizations. Emphasizes the interdependence of internal and external forms of organizational communication.

COMM 4180
Communication and Social Behavior
3
* Prerequisite(s): University Advanced Standing
Examines the complex relationship between human communication and the social worlds in which we live. Looks at ways behavior in roles, institutions, and culture are socially constructed through language. Examines discourses and their roles in constructing social phenomena, with an emphasis on the relationships between discourse and power.
**Course Descriptions**

**COMM 4850**
Public Relations and Strategic Communication Campaigns
3
* Prerequisite(s): COMM 2300, COMM 3520, and University Advanced Standing
Applies PR skills, case studies, and writing analysis to create strategic public relations campaigns for a number of clients. Requires students to generate a portfolio of work for clients. Software fee of $45 applies.

**COMM 4930**
Communication Capstone
3
* Prerequisite(s): COMM 1050, COMM 319G, and University Advanced Standing
Discusses the integration of various principles and objectives covered across the communication curriculum. Includes major thesis or project designed to reflect students' career goals.

**COMM 497R**
Independent Study
1 to 3
* Prerequisite(s): Departmental approval and University Advanced Standing
For advanced, qualified students who wish to undertake a well-defined project or directed study related to an area of special interest. Requires individual initiative and responsibility. Includes limited formal instruction and faculty supervision. Includes projects such as writing a publishable paper, creating a portfolio of published news articles, producing an annotated bibliography, oral or multimedia presentation, or other advanced options as approved by the instructor. May be taken for a maximum of 9 credit hours toward graduation.

**Computing (COMP)**

**COMP 1000**
Computer and Information Literacy
3
Discusses computer and information literacy, focusing on current technology, emerging technology, and social media. Promotes appropriate and ethical use of technology, critical-thinking skills, and problem-solving strategies. Develops skills in word processing, spreadsheet, presentation, and image-editing applications for personal and college success.

**COMP 301R**
Digital Lecture Series
1
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Guest speakers lecture on current topics in computer science, digital media, and information systems/technology. May be repeated for a maximum of 3 credits toward graduation.

**Collision Repair Technology (CRT)**

**CRT 100R**
Paint Your Own Car
2
Designed as a survey class. Discusses and demonstrates safety, sanding, masking, feather edging, priming, and refinishing of student's vehicle. Students will refinish their own projects in this class. Body and fender dents, rust out, etc., should be taken care of before class enrollment. The instructor will inspect and approve each project prior to allowing it in the program. Course is open to any community member who may profit from the instruction. May be repeated as desired for interest. Tool room fee of $19 for equipment applies.

**CRT 1110**
Surface Preparation
2
Covers environmental and personal safety when handling collision industry chemicals. Discusses metal preparation, surface treatment, painting and surface rust removal, proper sanding of old finishes, and film build tolerances. Teaches application and uses of undercoats, primers, primer surfacers, sealers and primer sealers. Covers block sanding, guide coats, wax and grease removers, and surface pre-cleaning techniques. Software fee of $10 applies. Lab access fee of $15 for computers applies.

**CRT 111L**
Surface Preparation Lab
1
* Corequisite(s): CRT 1110
Provides laboratory experience for surface preparation techniques aligning with lectures from CRT 1110. Topics include finish removal, sanding techniques, undercoating materials. Tool room fee of $19 for equipment applies. Course Lab fee of $40 for materials applies.

**CRT 1120**
Nonstructural Repair
2
Offers in-depth analysis of minor damage and applied metal working techniques. Studies properties of metal, elasticity, corrosion protection, work hardening, rough out, hammer and dolly techniques, heat shrinking, pick and file and grinding methods. Presents application of corrosion protection materials, body fillers, including metal and fiber reinforced fillers, and their shaping. Emphasizes safety precautions. Software fee of $10 applies. Lab access fee of $15 for computers applies.

**CRT 112L**
Nonstructural Repair Lab
1
* Corequisite(s): CRT 1120
Provides a laboratory experience for nonstructural repair techniques aligning with lectures from CRT 1120. Topics include fillers use, metallurgy, shrinking and stretching. Tool room fee of $19 for equipment applies. Course Lab fee of $22 for materials applies.

**CRT 1130**
Overall Refinishing and Problem Solving
2
Teaches use and maintenance of shop paint spray equipment. Studies types of undercoatings including sealers, primers, and primer surfacers, their use, limitations, and application. Discusses refinish products, their solid levels, coverage, and recommended refinish systems. Teaches prevention and removal of refinishing processing defects. Covers cutting and buffing. Uses ICAR Advanced Technical Curriculum. Successful completers should be prepared for ASE certification. Software fee of $10 applies. Lab access fee of $15 for computers applies.

**CRT 113L**
Overall Refinishing and Problem Solving Lab
1
* Corequisite(s): CRT 1130
Provides a laboratory experience for overall refinishing and problem solving techniques aligning with lectures from CRT 1130. Topics include safety, substrate usage, application techniques, base coats, clear coats, single stage paints, and tri coat processes, application / refinish / material defects, causes and cures. Tool room fee of $19 for equipment applies. Course Lab fee of $74 for materials applies.

**CRT 1140**
Panel Replacement and Adjustment
2
Studies removal, replacement, and alignment of bolt-on body panels. Presents multiple latch mechanisms and their adjustments. Various trim and body fasteners are discussed. Uses ICAR Advanced Technical Curriculum. Successful completers should be prepared for ASE certification. Software fee of $10 applies. Lab access fee of $15 for computers applies.

**CRT 114L**
Panel Replacement and Adjustment Lab
1
* Corequisite(s): CRT 1140
Provides a laboratory experience for panel replacement and adjustment techniques aligning with lectures from CRT 1140. Topics include replacement and alignment of bolt-on body panels, fasteners and trim. Tool room fee of $19 for equipment applies.

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**Course Descriptions**

**CRT 1210**  
*Blending Tinting and Detailing*  
2  

**CRT 121L**  
*Blending Tinting and Detailing Lab*  
1  
* Corequisite(s): CRT 1210  
Provides a laboratory experience for blending tinting and detailing techniques. Identifies proper procedures for Single stage, Base coat, and Tri stage blending. Identifies detailing techniques and materials. Tool room fee of $10 for equipment applies. Course Lab fee of $53 for materials applies.

**CRT 1230**  
*Welding and Cutting*  
2  
Introduces gas welding and cutting followed by intense study of MIG, TIG, STRSW welding of mild, high strength, ultra high strength steels, and aluminum. Studies the most common joints as they apply to current vehicles construction techniques. Introduces plasma arc cutting techniques. Uses ICAR Advanced Technical Curriculum. Successful completers should be prepared for ASE certification. Software fee of $10 applies. Lab access fee of $15 for computers applies.

**CRT 123L**  
*Welding and Cutting Lab*  
1  
Provides a laboratory experience for welding and cutting techniques aligning with lectures from CRT 1230. Topics include MIG, TIG, Squeeze Type Resistant Spot Welding (STRSW), welding processes. Tool room fee of $19 for equipment applies. Course Lab fee of $39 for materials applies.

**CRT 2310**  
*Collision Damage Reporting*  
2  
* Prerequisite(s): CRT 1120, CRT 1130, CRT 1230, recommended  

**CRT 231L**  
*Collision Damage Reporting Lab*  
1  
* Prerequisite(s): CRT 112L, CRT 113L, CRT 123L, all recommended  
* Corequisite(s): CRT 2310  
Provides a laboratory experience for collision damage estimating techniques aligning with lectures from CRT 2310. Topics include: damage analysis sequence, repair and replace decisions, using crash estimating guide, procedure page analysis of crash estimating guide, selecting parts and labor amounts in crash estimating guide, and various estimating programs for the computer. Tool room fee of $19 for equipment applies. Course Lab fee of $23 for materials applies.

**CRT 2320**  
*Structural Damage Analysis*  
2  
* Prerequisite(s): CRT 1230  
Teaches visual inspection, gauging, measuring, laser technology, and procedures needed to correctly evaluate primary and secondary structural damage. Includes lecture, demonstrations, and lab. Uses ICAR Advanced Technical Curriculum. Successful completers should be prepared for ASE certification. Software fee of $10 applies. Lab access fee of $15 for computers applies.

**CRT 232L**  
*Structural Damage Analysis Lab*  
1  
* Prerequisite(s): CRT 123L  
* Corequisite(s): CRT 2320  
Provides a laboratory experience for analyzing structural damage to conventional and unibody frames. Aligns with lectures from CRT 2320. Topics include: damage identification, body and frame measurement systems, interpret dimension information, set up and properly use a variety of manual, and computerized measuring systems. Tool room fee of $19 for equipment applies. Course Lab fee of $20 for materials applies.

**CRT 2330**  
*Structural Repair*  
2  
* Prerequisite(s): CRT 1230  
Teaches methods, strategies, and technology needed to align and straighten unibody and conventional frame components made from high strength steel and plastics. Studies alignment of steering and suspension components. Includes lecture, demonstrations, and lab. Software fee of $10 applies. Lab access fee of $10 applies.

**CRT 233L**  
*Structural Repair Lab*  
1  
* Prerequisite(s): CRT 123L  
* Corequisite(s): CRT 2330  
Provides a laboratory experience for aligning and straightening unibody and conventional components made from high strength steel and plastics. Tool room fee of $19 for equipment applies.

**CRT 2340**  
*Full and Partial Panel Replacement*  
2  
* Prerequisite(s): CRT 1140, CRT 1230  
Teaches removal, alignment, welding, gluing, and corrosion protection technology needed to replace unibody components including rails, pillars, and weld-on panels. Includes lecture, demonstrations, and lab. Uses ICAR Advanced Technical Curriculum. Successful completers should be prepared for ASE certification. Software fee of $10 applies. Lab access fee of $15 for computers applies.

**CRT 234L**  
*Full and Partial Panel Replacement Lab*  
1  
* Prerequisite(s): CRT 114L, CRT 123L  
* Corequisite(s): CRT 2340  
Provides a laboratory experience for full and partial panel replacement, aligning with lectures from CRT 2340. Topics include: removal, alignment, welding, gluing, and corrosion protection technology needed to replace unibody components: including rails, pillars, and weld-on panels. Tool room fee of $19 for equipment applies. Course Lab fee of $15 for materials applies.

**CRT 2400**  
*Plastic Paintless Dent Repair*  
2  
* Prerequisite(s): CRT 1110, CRT 1120  

**CRT 240L**  
*Plastic Paintless Dent Repair Lab*  
1  
* Prerequisite(s): CRT 111L, CRT 112L  
* Corequisite(s): CRT 2400  
CRT 2420 Plastic Repair
4
Teaches various repair methods, tools, and materials used to correctly repair plastic materials and SMC panels in modern vehicles. Includes lecture, demonstrations, and lab. Uses ICAR Advanced Technical Curriculum. Successful completers should be prepared for ASE certification. Software fee of $10 applies. Lab access fee of $15 for computers applies.

CRT 2430 Mechanical and Electrical Repair
4
Teaches basic mechanical systems theory, removal, and replacement. Studies A/C systems, cooling, braking, emission, restraint, and electrical systems. Includes lecture, demonstrations and lab. Uses ICAR Advanced Technical Curriculum. Successful completers should be prepared for ASE certification. Software fee of $10 applies. Lab access fee of $15 for computers applies.

CRT 2440 Mechanical Advanced Vehicle Systems
2

CRT 244L Mechanical Advanced Vehicle Systems Lab
1
* Corequisite(s): CRT 2440

CRT 2450 Bags Brakes Steering
2
Teaches the operation and repair of active and passive restraint systems. Diagnosis of sensors, modules and related components is also discussed. Discusses drum, disc, and anti-lock brake systems and components. Covers parallelogram, and rack and pinion steering systems, repair, replacement and diagnosis of each system is addressed. Uses Advanced Tech I-CAR curriculum.

CRT 245L Bags Brakes Steering Lab
1
* Corequisite(s): CRT 2450
Provides the operation and repair of active and passive restraint systems. Diagnosis of sensors, modules and related components is also discussed. Discusses drum, disc, and anti-lock brake systems and components. Covers parallelogram, and rack and pinion steering systems, repair, replacement and diagnosis of each system is addressed. I-CAR Advanced Tech curriculum is used. Tool room fee of $19 for equipment applies. Course Lab fee of $27 for materials applies.

CRT 2510 Custom Welding
2
For students pursuing a Diploma or an AAS degree in Collision Repair Technology with an emphasis in Custom Street Rod Technology or interested community members with a welding background. Covers TIG welding processes for mild steel, stainless steel, and aluminum. Teaches oxyacetylene welding processes for mild steel, brass, copper, pot metal, and aluminum.

CRT 251L Custom Welding Lab
1
* Corequisite(s): CRT 2510
Provides a laboratory experience for TIG welding processes for mild steel, stainless steel, and aluminum. Instruction in Oxyacetylene welding processes for mild steel, brass, copper, pot metal, and aluminum. Tool room fee of $19 for equipment applies. Course Lab fee of $69 for materials applies.

CRT 2520 Customizing
2
For students pursuing a Diploma or an AAS degree in Collision Repair Technology with an emphasis in Custom Street Rod Technology or interested community members with a welding background. Covers TIG welding processes for mild steel, stainless steel, and aluminum. Teaches panel fabrication and hammer forming. Tool room fee of $19 for equipment applies. Course Lab fee of $60 for materials applies.

CRT 2530 Panel Fabrication
2
For students pursuing a Diploma or an AAS degree in Collision Repair Technology with an emphasis in Custom Street Rod Technology or interested community members. Covers basic fabricating tools such as sheet metal brake, slip rolls, band saw, and nibblers. Uses specialty tools such as English wheel, power hammer, kraftformer, planisher hammer, shrinkers, and stretchers. Teaches panel fabrication and hammer forming.

CRT 253L Panel Fabrication Lab
1
* Corequisite(s): CRT 2530
Provides a laboratory experience for basic fabricating tools such as sheet metal brake, slip rolls, band saw, and nibblers. Uses specialty tools such as English wheel, power hammer, kraftformer, planisher hammer, shrinkers, and stretchers. Teaches panel fabrication and hammer forming. Tool room fee of $19 for equipment applies. Course Lab fee of $60 for materials applies.

CRT 2540 Structural Body Fabrication
2
For students pursuing a Diploma or an AAS degree in Collision Repair Technology with an emphasis in Custom Street Rod Technology or interested community members. Covers body construction from bumper to bumper and from roof to floor. Enhances knowledge of structural components of a well constructed vehicle.

CRT 254L Structural Body Fabrication Lab
1
* Corequisite(s): CRT 2540
Provides a laboratory experience for body construction from bumper to bumper and from roof to floor. Enhances knowledge of structural components of a well constructed vehicle.

CRT 2610 Top Chopping Sectioning and Channeling
2
* Prerequisite(s): CRT 2510, CRT 251L
For students pursuing a Diploma or an AAS degree in Collision Repair Technology with an emphasis in Custom Street Rod Technology or interested community members with a basic welding and collision repair background. Covers the history of vintage vehicles, methods of top chopping, sectioning and channeling techniques.
Course Descriptions

CRT 261L
Top Chopping Sectioning and Channeling Lab
1
* Prerequisite(s): CRT 2510, CRT 251L
* Corequisite(s): CRT 2610
Provides a laboratory experience for methods of top chopping, sectioning and channeling techniques. Tool room fee of $19 for equipment applies. Course Lab fee of $16 for materials applies.

CRT 2620
Frames
2
* Prerequisite(s): CRT 2510, CRT 251L
For students pursuing a Diploma or an AAS degree in Collision Repair Technology with an emphasis in Custom Street Rod Technology or interested community members with a welding background. Identifies the different types of frames and how to modify them. Teaches sub-framing, pro-streering, narrowing of rear ends, drive shafts, and complete frame change over. Covers exhaust systems and other alterations, front to rear.

CRT 262L
Frames Lab
1
* Prerequisite(s): CRT 2510, CRT 251L
* Corequisite(s): CRT 2620
Provides a laboratory experience for identifying the different types of frames and how to modify them. Teaches sub-framing, pro-streering, narrowing of rear ends, drive shafts, and complete frame change over. Covers exhaust systems and other alterations, front to rear. Tool room fee of $19 equipment applies.

CRT 2630
Detailing and Custom Painting
2
* Prerequisite(s): CRT 1110, CRT 1120, CRT 1130, CRT 1140, CRT 1210
For students pursuing a Diploma or an AAS degree in Collision Repair Technology or Custom Street Rod Technology or interested community members with a automotive painting background. Teaches custom painting and detailing for show cars. Emphasizes flames, scallops, shredding, checker boarding, air brush techniques, murals, fish scales, three stage paints, pearls, candies, and multi-colored changes.

CRT 263L
Detailing and Custom Painting Lab
1
* Prerequisite(s): CRT 111L, CRT 112L, CRT 113L, CRT 121L
* Corequisite(s): CRT 2630
Provides a laboratory experience for custom painting and detailing for show cars. Emphasizes flames, scallops, shredding, checker boarding, air brush techniques, murals, fish scales, three stage paints, pearls, candies, and multi-colored changes. Tool room fee of $19 for equipment applies. Course Lab fee of $73 for materials applies.

CRT 2640
Panel Fabrication of Aluminum
2
* Prerequisite(s): CRT 1110, CRT 1120, CRT 1130, CRT 1140
For students pursing a diploma or an AAS degree in Collision Repair Technology with an emphasis in Custom Street Rod Technology or interested community members. Covers basic hand tools, such as: hammers, dollies, leather bags, and slappers. Use of specialty equipment, such as: English wheel, Pullmax, nibbler, power hammers, and bead rollers. Teaches making bucks, patterns and forms. Teaches panel fabrication of aluminum.

CRT 264L
Panel Fabrication of Aluminum Lab
1
* Corequisite(s): CRT 2640
Provides laboratory experience for use of: hammers, dollies, leather bags, and slappers. Instructs in the use of specialty equipment, such as: English wheel, Pullmax, nibbler, power hammers, and bead rollers. Teaches making bucks, patterns and forms. Teaches panel fabrication of aluminum. Tool room fee of $19 for equipment applies. Course Lab fee of $60 for materials applies.

CRT 2650
Automotive Interior Design
2
* Prerequisite(s): CRT 1110, CRT 1120, CRT 1130, CRT 1140
Discusses automotive interior designs with emphasis on color coordination, and materials. Identifies a variety of techniques used in alteration, sewing, layout, and attachment processes.

CRT 265L
Automotive Interior Design Lab
1
* Corequisite(s): CRT 2650
Offers a laboratory experience for CRT 2650 lecture. Demonstrates interior design materials, color coordination, and stitching techniques. Teaches fabrication, design attachment, molding, layout and cutting. Tool room fee of $19 for equipment applies. Course Lab fee of $96 for materials applies.

CRT 281R
Cooperative Work Experience - Internship
1 to 4
* Corequisite(s): CRT 285R
Designed for Collision Repair Technology Majors. Provides paid, on-the-job work experience in the student's major, with work experience, the correlated class, and enrollment coordinated by the Cooperative Coordinator. Includes student, employer and coordinator evaluations, on-site work visits. Provides experience in writing and completing individualized work objectives that improve present work performance. May be repeated for a maximum of 8 credits toward graduation. May be graded credit/no credit.

CRT 285R
Cooperative Correlated Class - Internship
1 to 4
* Corequisite(s): CRT 281R
Designed for Collision Repair Technology Majors. Identifies on-the-job problems and provides remediation of those problems through in-class discussion and study. Includes the study of identifying and maximizing service opportunities. Students register for this class with the approval of the Cooperative Coordinator. Includes lecture, guest speakers, video tapes, role playing, case analysis, oral presentations, and written assignments. Completers should be better able to perform in their field of work or study. May be repeated for a maximum of 8 credits toward graduation. May be graded Credit/No Credit.

CRT 299R
Skills USA
1
Supports and facilitates the goals and objectives of Skills USA, which is a pre-professional student organization that develops social awareness, civic, recreational, and social activities. Prepares students to participate in local, state, and national contests. May be repeated for a maximum of 4 credits towards graduation.

Computer Science (CS)

CS 1030
Foundations of Computer Science
3
Introduces the basics of computing, including computer hardware, and programming concepts and language. Explores how computers work and how a computer may be programmed. Includes a brief history of computer, programming languages, and computer numbering systems. Presents basic programming constructs; students produce a variety of introductory level programs. Surveys various computing professions. May be delivered hybrid and/or online. Lab access fee of $45 computers applies.

CS 1400
Fundamentals of Programming
3
* Prerequisite(s): MAT 1010 or MAT 1015 with a B or better, or MAT above 1015 or ACT score 23 or higher or ALEKS score 38 or higher. CS 1030 recommended
Introduces techniques and tools to formulate and solve problems where computer algorithms and programs are a core part of an effective, repeatable solution. Demonstrates algorithmic thinking using procedural programs composed of sequences of commands, functions, loops, conditionals, and basic data structures. May be delivered online. Lab access fee of $45 for computers applies.
CS 1410
Object Oriented Programming
3
* Prerequisite(s): CS 1400 and (MATH 1050 or MATH 1055 with a C+ or better, or MATH above 1050)

Teaches proper program structure using the core concepts of object-oriented programming: classes, objects, encapsulation, inheritance and polymorphism. Presents problems of increasing size and complexity requiring OOP techniques, standard libraries and other appropriate language constructs. Presents methods to identify, define and implement solutions to naturally recursive problems. May be delivered online. Lab access fee of $45 for computers applies.

CS 2250
Java Programming
3
* Prerequisite(s): CS 1400

Covers practical Java programming in-depth, including abstract classes and interfaces, proper use of the packages Java.lang, Java.io, and Java.util. GUI design and implementation, and programming. Lab access fee of $45 for computers applies.

CS 2300
Discrete Mathematical Structures I
3
* Prerequisite(s): (CS 1410 or INFO 2200) and MATH 1050 or higher

Covers algebraic structures applied to computer programming. Includes logic, sets, elementary number theory, mathematical induction, recursion, algorithm complexity, combinatorics, relations, graphs, and trees. Lab access fee of $45 for computers applies.

CS 2370
C Plus Plus Programming WE
3
* Prerequisite(s): CS 1410

Introduces C++ programming for students with prior programming experience. Covers language fundamentals, core standard library components, error handling, value semantics, pointers and memory management, object-oriented programming, and templates. Lab access fee of $45 for computers applies.

CS 2420
Introduction to Algorithms and Data Structures
3

CS 2450
Software Engineering
3
* Prerequisite(s): CS 2300, CS 2420

Presents concepts, methodology and best-practices necessary to develop large scale software projects. Includes step-wise software requirements analysis, design, implementation, testing and release. Discusses software generation, reuse, scheduling, verification, and maintenance. Emphasizes current "real world" industry best-practices and tools. Lab access fee of $45 for computers applies.

CS 2550
Web Programming I
3
* Prerequisite(s): CS 1410 or DWDD 2720 or INFO 1200

Covers design and development of browser-based programs with an emphasis on single-page applications. Teaches generation and modification of HTML via JavaScript, debugging techniques, communicating with web servers, and use of XML and JSON. Lab access fee of $45 for computers applies.

CS 2600
Computer Networks I
3
* Prerequisite(s): CS 2810 or (INFO 1200 and IT 1600)

A rigorous introduction to computer networking theory and technologies for Computer Science and Information Technology majors. Includes theory of data communications protocols; theory and design of transmission systems; transmission media; and communication software. Emphasizes the lower layers of the Open Systems Interconnection model. Requires lab exercises to be completed outside of lecture. Lab access fee of $45 for computers applies.

CS 2690
Computer Networks II
3
* Prerequisite(s): CS 1410, CS 2300, CS 2600, CS 2370
* Prerequisite(s) or Corequisite(s): MATH 1210

Continues CS 2600 Computer Networks I. Focuses on the upper layers of the OSI and Internet models. Covers Internet (TCP/IP) protocols, routing theory, transport protocols, network application interfaces, presentation formatting, information theory and compression, cryptography, and other emerging technologies as time permits. Requires lab exercises and programming assignments to be completed outside of lecture. Lab access fee of $45 for computers applies.

CS 2700
Causal Inference
3
* Prerequisite(s): CS 1400

Explores a variety of data generating processes of importance for causal inference with computer simulations. Includes stratified sampling, inverse probability weighting, matching, blocking, propensity, sensitivity, causal graphs, d-separation, identifiability, the causal Markov condition, and the back-door criterion for selecting an admissible set of covariates. Examines causal mechanisms, the Rubin causal model, and both deterministic and stochastic counterfactuals. Develops ethical A/B testing procedures.

CS 2810
Computer Organization and Architecture
3
* Prerequisite(s): CS 1400

Uses assembly language to introduce basic concepts of computer organization. Includes number systems, CPU organization, instruction sets, programming in assembly, memory organization, debugging, program design, and documentation. Covers interrupts, vector tables, and disk I/O. Lab access fee of $45 for computers applies.

CS 281R
Internship
1 to 8
* Prerequisite(s): Department approval

Provides on-the-job work experience for CNS majors. Utilizes the skills and abilities in the fields of computer science, software engineering, networking, and/or computer engineering. May be repeated for a maximum of three credits toward graduation. May be graded credit/no credit.

CS 291R
Independent Study
1 to 6
* Prerequisite(s): Department approval

This course will allow the student to pursue an independent topic in computer science and study this topic in-depth in a flexible non-classroom environment. A maximum of three hours may be counted towards graduation without prior written CNS Department approval. The topic must be approved by the instructor and the CNS Department Chair. Lab access fee of $45 for computers applies.

CS 296R
CS Seminar
1 to 3

Presents topics of current interest to computer science in a seminar environment. Includes invited lectures by experts in the field, or a review of a particular technology by a faculty member. A maximum of three hours may be counted towards graduation without prior written CS Department approval. Lab access fee of $45 for computers applies.
Course Descriptions

CS 305G
Global Social and Ethical Issues in Computing GI WE
3
* Prerequisite(s): ENGL 2010 and (CS 1030 or CS 1400 or INFO 1120 or DGM 1110) and University Advanced Standing
Examines how computers have affected global society and how they could further affect it in the future. Examines various ethical issues surrounding computer usage, particularly in differing societal contexts. Explores the responsibilities borne by software professionals, including how their actions can affect both society and individual people in their own and other cultural settings. Presents examples of the moral and professional issues that those who work with computers might expect to face. Lab access fee of $45 for computers applies.

CS 3060
Operating Systems Theory
3
* Prerequisite(s): CS 2370, CS 2420, and University Advanced Standing. If a computer science or software engineering major, also CS 2810 and matriculation to computer science or software engineering. If a computer engineering major, also ECE 2700 and ECE 3730
Introduces the Unix operating system. Presents the underlying theory and concepts of an operating system, and covers the following topics in depth: device management, processes, threads, synchronization, scheduling, deadlocks, memory management, virtual memory, and file systems. Provides practical experience in writing programs that use standard Unix system calls to interface directly with the operating system. Lab access fee of $45 for computers applies.

CS 3100
Data Privacy and Security
3
* Prerequisite(s): CS 2420 and University Advanced Standing
Covers the fundamental theory, concepts and practical applications of computer security. Includes networking fundamentals, cryptography, authentication and authorization, access control, malware, physical security, computing systems hardening, threat detection and response, secure code, and secure applications development. Emphasizes developing, deploying, and maintaining a secure computing infrastructure with a hands-on approach.

CS 3110
Applied Cryptography
3
* Prerequisite(s): CS 2300, CS 3100, and University Advanced Standing
Investigates advanced topics in cryptography. Provides an overview of the necessary background in algebra and number theory, private- and public-key cryptosystems, and basic signature schemes. Explores relevant number theory, basic Galois fields as applied to cryptography, the history of primality algorithms and the polynomial-time test of primality, discrete logarithm-based cryptosystems including those based on elliptic-curves and interactive protocols including the role of zero-knowledge proofs in the authentication.

CS 3120
Ethical Hacking Tools Dev
3
* Prerequisite(s): CS 3100 and University Advanced Standing
Develops the structured knowledge base needed to discover vulnerabilities and recommend solutions for tightening network security and protecting data from potential attackers. Emphasizes developing cutting-edge tools and techniques to hack vulnerable systems.

CS 3140
Network and Cloud Security
3
* Prerequisite(s): CS 2690, CS 3100, and University Advanced Standing
Explores standards, protocols, and implementation techniques for secure socket communication and network protocols used to develop back-end agents and services that communicate in a cloud-based environment. Includes designing and implementing secure versions of cloud-based agents and services in a potentially hostile environment. Emphasizes minimizing potential attack vectors beyond user authentication at the service level.

CS 3240
Discrete Mathematical Structures II
3
* Prerequisite(s): CS 2300, CS 2420, CS 2810, computer engineering major or (matriculation to computer science or software engineering), and University Advanced Standing
Presents concepts from discrete mathematics including formal languages, and automata, including Turing machines, regular expressions, grammars, and computability. Lab access fee of $45 for computers applies.

CS 3250
Java Software Development
3
* Prerequisite(s): CS 2420, matriculation to computer science or software engineering if computer science or software engineering major, and University Advanced Standing
Covers object-oriented, functional programming and event-driven features of the Java Programming Language using common libraries, idioms, and software design patterns and principles. Includes abstract classes, interfaces, inner classes, lambda expressions, collections, streams, modern GUIs, I/O, serialization, socket programming, concurrency and parallel multicore programming. Lab access fee of $45 for computers applies.

CS 3260
C#sharp.NET Software Development
3
* Prerequisite(s): Matriculation to computer science or software engineering and University Advanced Standing
Introduces the C# programming language and the .NET Framework. Discusses the various datatypes, built-in class in namespaces, and how to develop user defined classes and namespaces. Includes programming assignments for console, GUI, and ASP.NET applications. Lab access fee of $45 for computers applies.

CS 3270
Python Software Development
3
* Prerequisite(s): CS 2420 or INFO 2200, matriculation to computer science or software engineering if computer science or software engineering major, and University Advanced Standing
Covers the features of the Python programming language. Includes scripting, dynamic typing, data types (sequences, sets, mappings, files, etc.), loops, iterators, generators, functions, coroutines, classes and objects, modules, packages and scope, runtime services, data wrangling, concurrent programming, etc. Lab access fee of $45 for computers applies.

CS 3310
Analysis of Algorithms
3
* Prerequisite(s): Matriculation into Computer Science or Software Engineering, and University Advanced Standing
Develops and reinforces ability to write and mathematically analyze foundational computer algorithms. Includes formalizing NP-completeness, divide and conquer strategies, greedy algorithms, dynamic programming, backtracking, branch and bound, approximation algorithms and multicore parallelization. Lab access fee of $45 for computers applies.
CS 3320
Numerical Software Development
3
* Prerequisite(s): MATH 1210, matriculation to computer science or software engineering, and University Advanced Standing
Teaches the tools necessary for modern scientific computation. Covers computer representation of floating-point numbers, error analysis and numerical stability, IEEE floating-point standards, testing of numerical algorithms, calculation of elementary functions, roots of equations, solutions of linear systems, numerical integration and differentiation, interpolation and approximation, Monte Carlo methods. Lab access fee of $45 for computers applies. Canvas Course Mats $45/McGraw applies.

CS 3370
C Plus Plus Software Development
3
* Prerequisite(s): CS 2370, CS 2810, matriculation to computer science or software engineering, and University Advanced Standing
Teaches C++ programming in a production environment, emphasizing mastery of the standard C++ library. Covers the following topics in-depth: const correctness, operator overloading, exception handling, exception-safe design, programming with assertions, automated unit testing, advanced memory management, generic programming with templates, containers, iterators, algorithms, concurrency, and functional programming. Introduces library development, common idioms, and other advanced topics. Emphasizes accepted software engineering practices. Lab access fee of $45 for computers applies.

CS 3380
JavaScript Software Development
3
* Prerequisite(s): CS 2420, CS 2550, matriculation into the CS program, and University Advanced Standing
Covers modern JavaScript features of functional programming, not JavaScript programming limited to the browser. Topics include rest/spread operators, string interpolation, regular expressions, object property shorthand, computed properties, method properties, destructuring assignments using object and array matching, module export/import, classes & inheritance, promises, iterators, generators, map/set, reflection, localization & formatting. Introduces common idioms and design patterns. Emphasizes accepted software engineering practices. Lab access fee of $45 for computers applies.

CS 339R
Advanced Programming Language Other
3
* Prerequisite(s): University Advanced Standing
Introduces and explores state-of-the-art programming languages and concepts such as language-specific syntax, operational semantics, libraries, idioms, integrated development environments, and debugging techniques. Demonstrates language concepts by developing and writing programs. May only be repeated for additional credit in another computer language with prior written departmental approval. Lab access fee of $45 for computers applies.

CS 3410
Human Factors in Software Development
3
* Prerequisite(s): CS 2550 and University Advanced Standing
Explores the analysis, design, and implementation of User Interfaces. Delves into all aspects of the user experience while interacting with computer systems, including cognitive, social, and emotional aspects of the user experience and methodical interaction design. Teaches how to observe users, collect requirements, design user experiences, create prototypes for customers and how to evaluate the effectiveness of any user interface. Includes both individual and group work. Lab access fee of $45 for computers applies.

CS 3450
Principles and Patterns of Software Design
3
* Prerequisite(s): (CS 3250 or CS 3260 or CS 3270 or CS 3370) and University Advanced Standing
Gives students familiarity with modern principles and practices of software design. Emphasizes design patterns, including their motivation and the design principles on which they are based. Lab access fee of $45 for computers applies.

CS 3520
Database Theory
3
* Prerequisite(s): Matriculation to computer science or software engineering and University Advanced Standing
Introduces the underlying theories of Relational Database Management Systems (RDBMS) as well as their practical use retrieving data using both embedded SQL and relational algebra. Implements queries that start from simply joining, selecting, and projecting data, then progresses to more complex data retrieval techniques that require the use of set operations, sub-queries, and group by having clauses. Discusses entity-relationship (ER) modeling, creating a RDBMS from an ER model, B+ Trees, ACID transactions, normalization, locking, concurrency issues, and alternatives to an RDBMS. Lab access fee of $45 for computers applies.

CS 3530
Data Management For Data Sciences
3
* Prerequisite(s): CS 3250 and University Advanced Standing
Covers advanced relational databases and issues related to managing non-relational data sets. Has two major components: (1) advances knowledge in relational database and skills in using SQL and database indexing; and (2) introduces NoSQL databases such as a document-oriented database, key-value database, column-oriented database, graph database, and Hadoop system and data warehousing. Justifies the need for NoSQL databases, and shows how they are implemented in database systems. Presents criteria that decision makers should consider when choosing between relational and non-relational databases and techniques for selecting the NoSQL database that best addresses specific use cases.

CS 3540
Game Programming
3
* Prerequisite(s): Matriculation to computer science or software engineering and University Advanced Standing
Teaches techniques for two and three-dimensional graphics programming using DirectX, OpenGL, and/or game engines built on those libraries. Presents concepts of game design that relate to the design and implementation of game software, including procedural generation of assets. Includes application of artificial intelligence concepts to game programming. Introduces the use of network programming techniques for development of multi-player games. May be delivered hybrid. Lab access fee of $45 for computers applies.

CS 3660
Web Programming II
3
* Prerequisite(s): CS 2420, CS 2550, CS 3380, and University Advanced Standing
Builds upon concepts taught in CS 2550 Web Programming I. Teaches how to design, implement, test, and debug medium sized web applications using both client and server side technologies. Includes web security, data markup languages, server side scripting technologies, web application interactions with databases, and web service architectures. Teaches how to develop a full web-site having sophisticated user interactions at a variety of security levels. Lab access fee of $45 for computers applies.
CS 3670
Network Programming
3
* Prerequisite(s): CS 2690, CS 3250, and University Advanced Standing
Covers concept and practical application of socket communication and network protocols. Presents design and implementation of networked applications. May be delivered online. Lab access fee of $45 for computers applies.

CS 3680
Mobile Device Programming
3
* Prerequisite(s): Matriculation to computer science or software engineering and University Advanced Standing
Teaches software design and programming principles and practices for developing applications for mobile devices. Addresses issues such as application life-cycle, user interfaces on touch-screen devices, options for data storage and communication, power and performance, and using graphics and media. Examines hardware features common in mobile devices such as GPS, accelerometers, and cameras. Lab access fee of $45 for computers applies.

CS 3720
Database Programming
3
* Prerequisite(s): CS 3520 and University Advanced Standing
Develops the mastery of programming interfaces to local, remote, web and cloud databases. Uses console, Microsoft Windows WPF and web user interfaces. Lab access fee of $45 for computers applies.

CS 3800
Data Science Through Statistical Reasoning
3
* Prerequisite(s): ECE 3710, CS 3530, and University Advanced Standing
Develops statistical reasoning and computational skills required to clean transform data, implement solutions to complex problems, explore and visualize data, develop and test hypotheses, use simulation to investigate stochastic processes and model real-world situations of interest. Presents cases that require various statistical methods, data technologies, developing algorithms and using powerful statistical and data science tools in a modern scripting language.

CS 3810
Applied Data Science
3
* Prerequisite(s): CS 3100, CS 3530, and University Advanced Standing
Covers the entire life cycle of a data science project, from problem formulation to data science solutions. Starts with a data driven problem, identifying data sets needed, collecting data, selecting techniques to solve the problem, implementing algorithms and models, assessing performance, and communicating insights and recommendations through written reports and oral presentations. Features several individual projects and a semester long team project.

CS 3820
Visualization Analytics for Data Science
3
* Prerequisite(s): CS 3530 and University Advanced Standing
Introduces visual analytics methods and techniques to support human reasoning and decision-making with data. Presents visualization as the primary tool for recognizing and communicating the significance, meaning and decision-making from massive, dynamic, often conflicting data. Includes both theoretical foundations and application methods, which presents a comprehensive view of this emerging, multidisciplinary field beyond simply learning to use visualization tools. Includes choosing the right visualization for the questions being asked, the data and the target audience; translating numbers to images; showing data or statistics; showing uncertainty, time trends; presenting results of machine learning techniques; many variables; big data; and maps and networks. Covers pie charts, bar charts, histograms, simple metrics, scatterplots, maps.

CS 4120
Security Vulnerability Analysis
3
* Prerequisite(s): CS 3100 and University Advanced Standing
Presents a methodology for attacking, assessing, analyzing, categorizing, and remediating security weaknesses in software and software systems. Develops insight into system architecture, process execution, operating systems, and error conditions that create opportunities for attack surfaces. Develops the ability to scan and exploit popular third-party applications rather than simulated lab exercises. Emphasizes writing and running working exploits and payloads.

CS 4200
Secure Computing Capstone
3
* Prerequisite(s): CS 3110, CS 3120, CS 3130 or CS 3140, and University Advanced Standing
Focuses on student's chosen field of the security domain. Solves a real-world computer security-related problem or dilemma. Brings all pieces of secure computing experience into a complete capstone project. Covers design, development, and deployment of all parts of the security domain.

CS 4230
Software Testing and Quality Engineering
3
* Prerequisite(s): CS 2450, one of (CS 3250 or CS 3260 or CS 3270 or CS 3370), ECE 3710 or STAT 2050, and University Advanced Standing
Provides a comprehensive exploration of strategies for testing software systems. Includes unit testing, system testing, developing software testing organization, and establishing software Total Quality Management (TQM) programs. Students will conduct system tests of software packages. Lab access fee of $45 for computers applies.

CS 4380
Advanced High Performance Computer Architecture
3
* Prerequisite(s): CS 3060, (CS 3370 Recommended), and University Advanced Standing
Presents theory and concepts of high-performance computer architectures. Includes digital logic, buses, registers, ALU’s, control units, pipelining, parallelism, DASD’s, SAST’s, RAID, caching, instruction-sets, memory hierarchy, multiprocessing, interconnection via networks. Lab access fee of $45 for computers applies.

CS 439R
Advanced Current Topics in Computer Science
1 to 3
* Prerequisite(s): Department approval and University Advanced Standing
Provides exposure to emerging technologies and topics of current interest in computer science. Varies each semester depending upon the state of technology. A maximum of 6 hours may be counted toward graduation without CS Department approval. Lab access fee of $45 for computers applies.
CS 4400  
**Software Engineering II**  
3  
* Prerequisite(s): CS 2450, CS 2600, CS 3520, and (CS 3250 or CS 3260 or CS 3270 or CS 3370), and University Advanced Standing  
* Prerequisite(s) or Corequisite(s): CS 3450  
Covers principles and practices of early phases of software development life cycle. Studies software requirements elicitation, analysis, and design. Includes in-depth, practical study of at least one major software development approach as applied to a realistic organizational systems problem. Explores requirements definition, analysis including prototyping, functional and nonfunctional requirements specification, legacy systems, and architecture patterns. Lab access fee of $45 for computers applies.

CS 4440  
**Applied 3D Computer Graphics**  
3  
* Prerequisite(s): CS 2420 with a C or better and (CS 3220 or CS 3250 or CS 3260 or CS 3270 or CS 3370 or CS 339R), and University Advanced Standing  
Presents theory and implementation concepts of 2D and 3D computer graphics as used in areas such as computer games, movie special effects, scientific visualization and art. Focuses on the development of applications using an existing cross-platform graphics library rather than on the development of a graphics library. Lab access fee of $45 for computers applies.

CS 4450  
**Analysis of Programming Languages**  
3  
* Prerequisite(s): CS 3240, (one of CS 3250, CS 3260, CS 3270 or CS 3370) and University Advanced Standing  
Offers the mature student an in-depth understanding of the design and implementation of programming languages. Explores criteria for evaluating programming languages as a context for comparing both traditional and current popular languages. Includes the evolution of programming languages, the concept of binding, type checking, static and dynamic scoping, control structures, subprograms and parameter passing methods, and concurrency. Explores the functional programming paradigm in-depth. Includes programming assignments in at least two different programming languages, at least one of which being a functional language such as LISP, Scheme, ML, or Haskell. Lab access fee of $45 for computers applies.

CS 4470  
**Artificial Intelligence**  
3  
* Prerequisite(s): CS 3240, CS 3310, CS 3320, and (CS 3250 or CS 3260 or CS 3270 or CS 3370), and University Advanced Standing  
Presents theory, organization, concepts, and principles of artificial intelligence methodologies including neural networks, expert systems, machine learning algorithms, and genetic algorithms. Lab access fee of $45 for computers applies.

CS 4480  
**Digital Image Processing and Computer Vision**  
3  
* Prerequisite(s): CS 2300, CS 2420, CS 3320, and University Advanced Standing  
Prepares students for creating software solutions in the multimedia market of today and into the future. Covers digital sampling of analog signals, basic image processing in the spatial domain and frequency domain, edge and line detection, photo enhancement, feature extraction, and object recognition. May be delivered online. Lab access fee of $45 for computers applies.

CS 4490  
**Compiler Construction**  
3  
* Prerequisite(s): CS 3450, CS 4380, CS 4450, and University Advanced Standing  
Builds on software created in CS 4380. Presents concepts necessary to create a modern compiler. Reinforces theoretical and practical software development skills from previous courses through an immersive, expressive approach to compiler construction. Lab access fee of $45 for computers applies.

CS 4500  
**Advanced Topics in Database**  
3  
* Prerequisite(s): (CS 3520 or INFO 3410) and University Advanced Standing  
Covers transaction processing, concurrency control techniques, database recovery techniques, database security and authorization, database integrity, distributed databases and client-server architectures, load balancing, data warehousing, data mining, database machines, mobile database, multimedia database, GIS, genome data management, data fragmentation, data encryption, locking, and deadlock. Lab access fee of $45 for computers applies.

CS 4550  
**Software Engineering III**  
3  
* Prerequisite(s): CS 4400, CS 4230, and University Advanced Standing  
Senior-level, capstone project experience course. Requires operating as part of a high performance team. Includes completing the design and implementation of a large-scale software development project. Combines major milestone presentations to project clients, completing a portfolio of project-related artifacts, and offer an evaluation of the project and team experience. Requires students to take a program level assessment. Lab access fee of $45 for computers applies.

CS 4610  
**TCP IP Internet Architecture**  
3  
* Prerequisite(s): CS 2690, matriculation to computer science or software engineering, and University Advanced Standing  
Provides theoretical, practical, administrative perspectives of the TCP/IP protocol and its use with the Internet. Includes coverage of IPv4, IPv6, TCP, OSPF and related protocols, IP addressing, subnetting issues, and domain name services are also covered. Lab access fee of $45 for computers applies.

CS 4620  
**Data Mining**  
3  
* Prerequisite(s): CS 3520 and University Advanced Standing  
Introduces the process of knowledge discovery and the basic theory of automatic extracting models from data, validating those models, solving the problems of how to extract (mine) valid, useful, and previously unknown interesting patterns from a source (database or web) which contains an overwhelming amount of information. Explains various models (decision trees, association rules, linear model, clustering, bayesian network, neural network) and how to apply them in practice. Algorithms applied include searching for patterns in the data, using machine learning, and applying artificial intelligence techniques. Teaches how to implement several relevant algorithms and use existing tools to mine real-world, business driven databases. Lab access fee of $45 for computers applies.

CS 4660  
**NoSQL Database Development**  
3  
* Prerequisite(s): Matriculation into the Computer Science or Software Engineering program, CS 3520, and University Advanced Standing  
Introduces theory, concepts, architecture, and use of non-traditional database management systems. Discusses the appropriate use of each in its own niche. Lab access fee of $45 for computers applies.
Course Descriptions

CS 4670  
Undergraduate Research Project for Networking Specialization  
3  
* Prerequisite(s): CS 3660, CS 4610, and University Advanced Standing

Creates a system suitable for presentation and defense including project proposal, management plan, system design documentation, relevant testing and benchmarks, and final written and oral reports. Includes system design, systems integration and systems management. Encourages open source and community service projects. Requires completion of a program level assessment test. Lab access fee of $45 for computers applies.

CS 4690  
Distributed Internet Application Development  
3  
* Prerequisite(s): CS 3660 and University Advanced Standing

Provides experience building significant software solutions that span large heterogeneous systems. Includes heterogeneous operating systems, data stores (SQL and NoSQL), service architectures, remote objects, remote services, and data exchange. Lab access fee of $45 for computers applies.

CS 4700  
Machine Learning I  
3  
* Prerequisite(s): CS 3270, CS 3320, and University Advanced Standing

Explores the philosophy, utility, mathematics and algorithms of machine learning in order to understand the basic concepts and issues at the heart of machine learning. Covers the implementation and use of machine learning algorithms to solve real-world problems or to pursue a graduate program. Includes feature selection and extraction, decision trees, neural networks, nearest-neighbors, support vector machines, naive Bayes classifier, clustering, ensembles, reinforcement learning and deep learning.

CS 4710  
Machine Learning II  
3  
* Prerequisite(s): CS 4700 and University Advanced Standing

Applies Deep Learning models to problems in a variety of application domains that use massive data sets, such as recommender systems, novel text, image and music generation, sentiment analysis. Implements working models using algorithms such as recurrent neural nets, convolutional neural nets, deep belief nets, and deep reinforcement learning. Uses modern toolkits such as Tensorflow.

CS 4770  
Software Development for Robotics  
3  
* Prerequisite(s): CS 3370 and University Advanced Standing; CS 4470 recommended

Teaches students through hands on development the intricacies of programming robots such as autonomous vehicles and/or industrial manufacturing robots. Includes behavior based programming, intelligent agents, low level device drivers, sensor calibration and processing, real time programming requirements, motion planning and navigation, and machine learning. Lab access fee of $45 for computers applies.

CS 479R  
Advanced Current Topics in Computer Science  
1 to 3  
* Prerequisite(s): Department Approval and University Advanced Standing

Provides exposure to emerging technologies and topics of current interest in computer science. Varies each semester depending upon the state of technology. May be repeated for a maximum of 6 credit hours toward graduation without prior written CS Department approval. Lab access fee of $45 for computers applies.

CS 4800  
Data Science Capstone  
3  
* Prerequisite(s): CS 3530 and University Advanced Standing

Solves a real-world data science problem or dilemma for an industry partner. Provides an opportunity to work in teams on a project from an industrial firm. Includes realistic industry evaluations such as teamwork, communication, individual initiative, and final product.

CS 481R  
Internship  
1 to 8  
* Prerequisite(s): Matriculation to computer science or software engineering, Instructor Approval, and University Advanced Standing

Provides opportunity to use work experience to add to educational background and academic experience. A maximum of 3 credit hours may be counted towards graduation without prior written CS Department approval. May be graded credit/no credit.

CS 4870  
Cloud Computing  
3  
* Prerequisite(s): Matriculation into the Computer Science or Software Engineering program, CS 4690, and University Advanced Standing

Develops mastery of programming to cloud databases. Emphasizes real-world scenarios involving architecture, build, development, testing, and deployment on commercially available cloud databases. Covers concurrent programming, distributed programming, microservices, migration, and hybrid clouds. Lab access fee of $45 for computers applies.

CS 489R  
Undergraduate Research Project  
2 to 6  
* Prerequisite(s): Department approval and University Advanced Standing

Combines and integrates concepts, methodologies, and skills developed in previous Computer Science course work. Studies the specification, analysis, design, implementation, and completion of a complex and comprehensive project. Requires a project/ portfolio using project management techniques. A maximum of 3 hours may be counted towards graduation without prior written Computer Science Department approval. Lab access fee of $45 for computers applies.

CS 4900  
Full Stack Web Senior Capstone  
3  
* Prerequisite(s): CS 3410, CS 4660, CS 4690, and University Advanced Standing

Brings all pieces of full stack web development into a complete capstone project. Covers design, development and deployment of all parts of a web application. Lab access fee of $45 for computers applies.

CS 491R  
Independent Study  
1 to 6  
* Prerequisite(s): Prior written Department Chair approval and University Advanced Standing

Offers independent study as directed by a faculty advisor in reading, individual projects, etc. Varies each semester depending upon the state of technology. A maximum of 3 credit hours may be counted towards graduation without prior written Department approval. Lab access fee of $45 for computers applies.

CS 496R  
Senior Seminar  
1 to 3  
* Prerequisite(s): University Advanced Standing

Presents current state-of-the-art and/or best-practices topics in a seminar format. A maximum of 3 credits will count towards graduation. Lab access fee of $45 for computers applies.
CS 6100 Database Management System Construction 3
* Prerequisite(s): Acceptance into the Master of Computer Science Program or Graduate Certificate in Artificial Intelligence Program
Explores issues associated with implementing a DBMS. Provides experience designing and implementing a relational DBMS with features such as projection, select and join, indexing, B+ trees, and parsing. Examines database performance and implements query optimization.

CS 6150 Advanced Algorithms 3
* Prerequisite(s): Acceptance into the Master of Computer Science Program or Graduate Certificate in Artificial Intelligence Program
Explores applications and tradeoffs of state of the art algorithms in parallel/concurrent programming, data search, graphics, graph theory, data structures, mathematical programming, machine reasoning, machine learning, network flow, and other domains. Applies both theory and practice to various projects with a focus on concurrent/parallel programming.

CS 6200 Cyberphysical Security 3
* Prerequisite(s): Acceptance into the Master of Computer Science Program or Graduate Certificate in Artificial Intelligence Program
Studies the principles, practices and algorithms related to securing computers and other network-visible devices. Analyzes the problems of security associated with computers and cyberphysical systems. Identifies threats, attacks, and actors. Applies cryptography and other techniques to address those problems.

CS 6300 Software Engineering Leadership 3
* Prerequisite(s): Acceptance into the Master of Computer Science Program or Graduate Certificate in Artificial Intelligence Program
Prepares students to be software project leaders. Evaluates modern software processes and project management. Identifies important roles in software projects and their contribution to project success. Explores interaction of business needs and project development.

CS 6400 Modern Databases 3
* Prerequisite(s): Acceptance into the Master of Computer Science Program or Graduate Certificate in Artificial Intelligence Program
Evaluates recent trends in database technology, including the history of NoSQL, NoSQL aggregate data, distribution models, and NoSQL consistency. Teaches data analysis and machine learning by exploring concepts associated with processing massive data sets such as parallel data analysis through mapReduce and other algorithms. Explores technologies associated with modern databases management systems, such as in-memory databases, cloud database management systems.

CS 6460 Artificial Intelligence 3
* Prerequisite(s): Acceptance into the Master of Computer Science Program or Graduate Certificate in Artificial Intelligence Program
Presents foundational AI algorithms. Explores state space search, local search, adversarial search, constraint satisfaction problems, logic and reasoning, expert systems, Markov Models, Bayesian networks, particle filters, planning, reinforcement learning, and multilayer perceptrons. Studies practical implementations of AI algorithms.

CS 6470 Machine Learning 3
* Prerequisite(s): Acceptance into the Master of Computer Science Program or Graduate Certificate in Artificial Intelligence Program

CS 6500 Software Architecture 3
* Prerequisite(s): Acceptance into the Master of Computer Science Program or Graduate Certificate in Artificial Intelligence Program
Evaluates software architecture and the high level design of large scale software systems. Explores common architectural styles and patterns. Teaches techniques of documenting and assessing software architectures. Teaches characteristics of software architecture evolution. Evaluates several large-scale software architectures.

CS 6510 Graduate Project I 3
* Prerequisite(s): CS 6600
Teaches the design and development of a walking skeleton with students participating in all aspects of software development, including: requirements elicitation, architecture, design, implementation, testing, and deployment. First semester of a two-semester capstone course.

CS 6600 Modern Databases 3
* Prerequisite(s): CS 6300, CS 6510, CS 6400
Teaches the design and development of a walking skeleton with students participating in all aspects of software development, including: requirements elicitation, architecture, design, implementation, testing, and deployment. First semester of a two-semester capstone course.

CS 6610 Graduate Project II 3
* Prerequisite(s): CS 6600
Guides through completion and delivery of the large-scale system started in CS 6600. Delivers appropriate system documentation. Teaches the writing and execution of system tests that ensure a high quality system. Must be taken immediately after CS 6600.
Course Descriptions

CS 6620  
Advanced Data Mining and Visualization  3  
* Prerequisite(s): Acceptance into the Master of Computer Science program or Graduate Certificate in Artificial Intelligence program  
Explores advanced concepts of data mining and knowledge discovery including sequence mining, audio video mining, and text mining. Analyzes, designs, develops, and evaluates data mining techniques and tools, including data preprocessing, data characterization and comparison, decision trees, association rule mining in large databases, classification and prediction. Uses clustering and cluster analysis and statistical modeling, advanced methods and applications, extracting meaningful patterns from massive datasets using methods such as neural networks and machine learning algorithms.

CS 6700  
Advanced Mathematics for Computer Science  3  
* Prerequisite(s): Acceptance into the Master of Computer Science program or Graduate Certificate in Artificial Intelligence program  
Solves computer science problems using advanced mathematical models. Applies calculus functions of multiple variables, linear equations, matrix algebra, determinants, Gaussian elimination, eigenvalues, linear programming, and finite-state Markov chains.

CS 6730  
Advanced Embedded Systems Engineering  3  
* Prerequisite(s): Acceptance into the Master of Computer Science program or Graduate Certificate in Artificial Intelligence program  
Provides a hands-on design experience of software design at the system layer where hardware meets software. Explores embedded computing platforms, interacting with the external world, real-time operation, constraints and optimization, and other techniques which are important for building embedded systems that work in the real world. Applies design/implementation/debugging of embedded functionality through a series of projects and homework exercises.

CS 6800  
Computer Graphics and Mixed Realities  3  
* Prerequisite(s): Acceptance into the Master of Computer Science program or Graduate Certificate in Artificial Intelligence program  
Introduces computer graphics beyond 2D and 3D graphics into mixed reality, where virtual objects interact with the real world. Explores topics such as 2D/3D graphics, augmented reality, virtual reality, immersive visualization, the use of graphics/physics engines, and 3D printing.

Digital Media AGVE (DAGV)  

DAGV 1200  
3D Modeling Essentials  3  
Covers the 3D pipeline which includes pre-production (rough placeholder art), production (finished art), and post production (composite and effects). Instructs students to develop 3D models, UV maps, and 2D textures. Teaches how to integrate models into a realtime rendering engine. Lab access fee of $45 applies.

DAGV 1300  
Animation Essentials  2  
* Corequisite(s): DAGV 130L  
Introduces animation principles and processes used in the animation industry. Emphasizes the synthesis of technology and aesthetics in the production of animated titles. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DAGV 130L  
Animation Essentials Lab  1  
* Corequisite(s): DAGV 1300  
Applies animation principles and processes introduced in DAGV 1300. Emphasizes the synthesis of technology and aesthetics in the production of animated titles. Introduces traditional animation methods in the construction of motion projects.

DAGV 1400  
Scripting Essentials  3  
Introduces the fundamentals of computer programming and problem solving using the current industry standard scripting languages. Emphasizes the fundamentals of structured and object-oriented programming, syntax, semantics, control structures, arrays, file I/O, testing/debugging, implementation, and the construction of graphical user interfaces. Applies these concepts to manipulate digital images, sound, movies, text, and web pages that are heavily used as digital media. Lab access fee of $45 applies.

DAGV 1500  
Concept Essentials  3  
* Prerequisite(s): Portfolio Review Acceptance  
Introduces animated title production from initial idea to finished film. Explores the fundamentals of figure structure, proportion, and shape. Serves as the foundation for advanced courses in layout, character development, rigging, and animation for films and games. Utilizes live and/or on-line resources to draw the human form.

DAGV 1600  
Studio Technology Essentials  3  
* Prerequisite(s): Portfolio Review Acceptance  
Introduces 2D animation processes used in industry today. Teaches both traditional paperless and cut-out animation. Introduces node-system software technology and the use of a script editor.

DAGV 2210  
3D Modeling and Animation  3  
* Prerequisite(s): Portfolio Review Acceptance  
Addresses the basics of 3D modeling, texturing, animation, and rendering. Demonstrates how to utilize these techniques in a production pipeline for games and animation. Includes basic practices and theories common in the animation industry. Software fee of $15 applies. Course fee of $19 for equipment applies. Lab access fee of $45 for computers applies.

DAGV 2230  
Animation I  2  
* Prerequisite(s): Portfolio Review Acceptance  
* Corequisite(s): DAGV 223L  
Explores and applies animation pipeline practices. Emphasizes the study of characters and objects in motion and the communication of key ideas in the development of second-year animation projects. Covers both aesthetic and technical processes. Lab access fee of $45 for computers applies. Software fee of $15 applies. Course fee of $18 for software and plug-ins applies.

DAGV 223L  
Animation I Lab  1  
* Prerequisite(s): Portfolio Review Acceptance  
* Corequisite(s): DAGV 2230  
Applies animation principles and software processes. Emphasizes the research and construction of character motion to communicate emotional impact. Covers both aesthetic and technical processes.

DAGV 2240  
Character Development  3  
* Prerequisite(s): Portfolio Review Acceptance  
Teaches an in-depth study and application of character development practices for animation and interactive games. Includes research, design, construction, and testing of an original animated character. Requires the application of the Principles of Animation. Software fee of $15 applies. Lab access fee of $45 for computers applies.
Course Descriptions

DAGV 2330
Introduction to Rigging
2
* Prerequisite(s): Portfolio Review Acceptance
  * Corequisite(s): DAGV 233L
Introduces fundamental rigging on typical 2D and/or 3D characters for simple performance motion in animated films and interactive games. Software fee of $15 applies. Lab access fee of $45 applies.

DAGV 233L
Introduction To Rigging Lab
1
* Prerequisite(s): Portfolio Review Acceptance
  * Corequisite(s): DAGV 2330
Applies fundamental rigging processes on typical 2D and/or 3D characters for simple performance in animated films and interactive games.

DAGV 2340
Digital Storyboarding
3
* Prerequisite(s): Portfolio Review Acceptance
Introduces contemporary storyboarding practices, both linear and non-linear, key to communicating information clearly and consistently in a cost effective manner. Lab access fee of $45 for computers applies. Software fee of $15 applies. Course fee of $12 for software and plug-ins applies.

DAGV 2440
Scripting for Animation and Games I
3
* Prerequisite(s): Portfolio Review Acceptance
Focuses on the basic elements of scripting languages in contemporary software applications. Develops a firm understanding of basic scripting concepts in an animation and/or game, including: libraries, expressions, arrays, conditionals, loops, and functions. Discusses simplification of complex user operations and the development of basic user interfaces. Laptop Required. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DAGV 2460
Game Development I
3
* Prerequisite(s): Portfolio Review Acceptance
Provides a foundation for basic game development pipeline. Covers low poly count modeling in a variety of software packages and use of 3D models in an industry-standard game development engine. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DAGV 2470
Game Development II
3
* Prerequisite(s): Portfolio Review Acceptance
Explores interactive video and computer gaming from historic, economic, and production perspectives. Introduces game theory, analysis, design documentation, and development. Lab access fee of $45 applies.

DAGV 2480
Introduction to Compositing
3
* Prerequisite(s): Portfolio Review Acceptance
Introduces animation compositing processes, including lighting, filters, masks, effects, render, and export of finished scenes.

DAGV 301R
Digital Lecture Series
1
* Prerequisite(s): University Advanced Standing
Uses guest speakers who lecture on current topics in digital media. May be repeated for a maximum of 3 credits toward graduation.

DAGV 3310
Technical Design and Direction
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
Introduces industry standard technical direction (TD) problem solving practices. Includes project management, aesthetic development, film and/or game play design. Software fee of $15 applies. Course fee of $20 applies. Lab access fee of $45 for computers applies.

DAGV 3350
Animation and Game Production I
2
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
* Corequisite(s): DAGV 335L
Emphasizes industry title development processes. Covers lighting and rendering in an animation and/or game environment. Includes composition, technical lighting, layer-based rendering, and texture baking. Requires junior-level projects to be initiated and completed within the semester. Lab access fee of $45 for computers applies.

DAGV 335L
Animation and Game Production II
2
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
* Corequisite(s): DAGV 3350
Emphasizes the application of pre-production processes in the development of a multi-semester project for animation and game development projects. Includes research, writing, scripting, designing, storyboarding, and pre-visualization of a short title.

DAGV 3440
Scripting for Animation and Games II
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

DAGV 3450
Animation and Game Production III
2
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
* Corequisite(s): DAGV 345L
Focuses on the application of advanced technical topics as they impact game construction. Addresses networking and distributed systems issues, including scalability and latency compensation techniques, in designing games for online multi-player environments. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DAGV 345L
Animation and Game Lab II
2
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
* Corequisite(s): DAGV 3450

deploying software and plug-ins. Requires junior-level projects to be initiated and completed within the semester. Lab access fee of $45 for computers applies.

DAGV 3460
Game Development III
2
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
Continues the study of game theory, analysis, and design documentation. Emphasizes game construction using an industry-standard development engine. A laptop computer is required for this course. Software fee of $15 applies. Lab access fee of $45 for computers applies.
Course Descriptions

DAGV 3470
Animation Story Development WE
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
Covers short themed script development for animated and interactive titles. Discusses specific scriptwriting subjects such as initiating the idea, researching, outlining, and rewriting. Includes weekly writing assignments that are read and analyzed according to structure and the execution of a goal. Requires the presentation of a completed animatic. Lab access fee of $45 applies.

DAGV 4350
Advanced Technical Direction I
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
Focusses on the production of digital special effects and compositing in 2D and 3D environments. Includes multi-layer effects, green screen, digital mattes, and grading. Includes visual effects editing and particle generation. Software fee of $15 applies. Course fee of $15 for software and plug-ins applies. Lab access fee of $45 for computers applies.

DAGV 4450
Advanced Technical Direction II
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
Focusses on the use of digital special effects in two and three-dimensional environments including high-end particle effects, digital fluids, and advanced simulation. Tools include industry standard software applications. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DAGV 4550
Performance Animation
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

DAGV 490R
Senior Capstone
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
Provides a capstone animation and game development experience for senior students. Develops individual and team real-world projects in consultation with a faculty advisor. May be repeated for a maximum of 6 credits toward graduation.

Dance (DANC)

DANC 1010
Dance as an Art Form
3
Explores multi-cultural dance and movement expression. Studies the different ways in which world cultures are expressed through dance and movement. Overviews dance history and traces the evolution of dance as an art form. Examines the art and craft of dance making, dance as an expression of culture and community. Explores dance as artistic expression in 20th Century America. Course lab fee of $30 for World Dance applies.

DANC 110R (Cross-listed with: DANC 1100)
Beginning Ballet
1
Introduces ballet to students without previous experience. Emphasizes ballet discipline, develops posture, alignment, and muscular control to improve health and appearance of physical body. May be repeated for a maximum of 3 credits toward graduation.

DANC 120R
Beginning Modern/Contemporary Dance
1
Gives students experience in modern/contemporary dance technique, emphasizing locomotor skills and movement expression. Introduces elements of dance, time, space, and energy. May be repeated for a maximum of 3 credits toward graduation.

DANC 127R
Ballet Technique I
3
For intermediate level ballet students. Requires ability to handle the varying technical difficulties of classical ballet. Includes theories from Soviet, French, Italian, American, English, and Danish schools. Provides hands-on experience in barre and center floor work to increase strength, flexibility. Emphasizes body alignment and correct placement. Prepares students for a more intensive study in ballet. May be repeated for a total of 18 credits. Course Lab fee of $216 for support applies.

DANC 1330
Studio Workshop Creative Process in Dance
1
A multi-disciplinary approach to the creative process in dance. Overviews the creative process and explores the development of individual artistry and personal voice in dance. Examines how the creative process in other disciplines informs creative work in dance. Includes participation and lecture.

DANC 141R
Intermediate Modern/Contemporary Dance
2
Increases physical skills in dance technique and performance technique. Introduces principles and concepts that govern human movement. Emphasizes development of strength, flexibility, coordination, core support, and movement expressiveness. Includes aspects of composition, improvisation, and performance as they relate to technique. Develops foundational skills in modern dance technique. Prepares students for more intensive study. Does not fulfill a dance major requirement. May be repeated for a total of 6 credits toward graduation.

DANC 143R
Modern/Contemporary Dance Technique and Theory I/Semester I
3
* Prerequisite(s): Audition
Introduces Dance majors to modern/contemporary dance technique. Focuses on development of solid foundational skills in modern dance technique and theory that prepares the student for an intensive major program. Emphasizes the development of strength, flexibility, core support, coordination, kinesthetic awareness and memory, and movement expressiveness. Includes experience in improvisation and composition as a means of understanding and applying technical skills in performance settings. May be repeated for a total of six credits toward graduation. Course Lab fee of $216 for support applies.

DANC 144R
Modern/Contemporary Dance Technique and Theory I/Semester II
3
* Prerequisite(s): DANC 143R
Focuses on development of solid foundational skills in modern dance/contemporary dance technique and theory that prepare the student for an intensive major program. Emphasizes the development of strength, flexibility, core support, coordination, kinesthetic awareness and memory, and movement expressiveness. Includes experience in improvisation and composition as a means of understanding and applying technical skills in performance settings. May be repeated for a total of six credits toward graduation. Course Lab fee of $216 for support applies.

DANC 150R
Beginning Jazz Dance
1
* Provides student experience in jazz dance including rhythms, style, and jazz techniques. Includes basic jazz terminology. May be repeated for a maximum of 3 credits toward graduation.
DANC 151R
Intermediate Jazz Dance
1
Teaches intermediate jazz technique, style and rhythm. Increases coordination, stamina, strength and flexibility through appropriate principles of jazz training. May be repeated for a maximum of 3 credits toward graduation.

DANC 1520
Folk Dance I
1
Presents music, dance steps, and styles of folk dances from different countries. Teaches basic dance formations, positions, and terminology.

DANC 1530
Folk Dance II
1
* Prerequisite(s): DANC 1520
Acquaints students with intermediate level folk dances from around the world, including steps, styling, music and costumes. Discusses cultural characteristics that are expressed through folk dance.

DANC 1540
Clogging I
1
Teaches basic steps, styling and history of clogging. Includes dances and freestyle clogging choreography.

DANC 1550
Clogging II
1
* Prerequisite(s): DANC 1540 or equivalent experience
Teaches buck-style clogging and steps of complex rhythm and structure. Includes upper body movement patterns and emphasizes total body coordination. Examines contemporary and historical trends in clogging.

DANC 156R
African Dance I
1
Explores traditional movements and rhythms from Central and West Africa and is accompanied by live drumming. Focuses on the development of solid foundational skills in African dance technique. Emphasizes the cultural significance of various dances and rhythms as well as the influences of the African aesthetic in contemporary dance and culture. Includes participation, video, and guest instructors from Africa. May be repeated for a maximum of 3 credits toward graduation. Course fee of $40 for support applies.

DANC 158R
Tap Dance I
1
Introduces basic steps and rhythms of tap dance. Reviews the history of this American theatrical dance form. May be repeated for a maximum of 3 credits toward graduation.

DANC 159R
Hip Hop I
1
Explores a variety of Hip Hop Dance styles and moves to the latest music. Introduces students to fundamental dance techniques. Discusses Hip Hop as a cultural movement. May be repeated for a maximum of 3 credits toward graduation.

DANC 160R
Hip Hop II
1
* Prerequisite(s): Previous Hip Hop Dance experience
Introduces advanced Hip Hop Dance through different styles, across the floor combinations, break dancing, and in-class performances. Broadens the students' understanding of the history, culture, and style of Hip Hop Dance. May be repeated for a maximum of 3 credits toward graduation.

DANC 161R
Dance Conditioning
1
Introduces dance conditioning principles. Covers theory and practice. Emphasizes body balancing in strength, flexibility and endurance training supported by knowledge of basic principles of anatomy and biomechanics. Includes stress management, nutrition, body image, somatotypes, and body connectivity work. May be repeated for a maximum of 3 credits toward graduation.

DANC 162R
Polynesian Dance I
1
Explores basic forms of authentic Polynesian dance with a focus on the dances of Tonga, New Zealand, Tahita and Hawaii. Teaches the origins of the Polynesian people, their "tapu" systems, culture, religions, musical instruments and legends through movement classes, research, discussion and video. Explores Polynesian dance as an art form. May be repeated for a maximum of 3 credits toward graduation.

DANC 170R
American Social Dance I
1
Introduces beginning (Bronze) level patterns of American Social Dance including Foxtrot, Triple Swing, Waltz, and Cha Cha. Emphasizes, on a beginning level, correct rhythm, poise, footwork and foot positions, dance position, and etiquette. Course fee of $10 for practical experience applies. May be repeated for a maximum of 3 credits toward graduation.

DANC 171R
International Ballroom Dance I
1
Teaches beginning (Bronze) level patterns of International Ballroom Dance including Waltz, Quickstep, and Tango. Introduces correct rhythm, poise, footwork, foot positions, dance position, posture, and leading and following. Provides general knowledge of Bronze level curriculum. May be repeated for a maximum of 3 credits toward graduation. Course fee of $10 for practical experience applies.

DANC 172R
Latin Ballroom Dance I
1
Teaches beginning (Bronze) level patterns of International Style Latin Rumba, Samba, and Cha Cha. Introduces correct rhythm, poise, footwork, and foot positions. Provides general knowledge of Bronze level curriculum. May be repeated for a maximum of 3 credits toward graduation. Course fee of $10 for practical experience applies.

DANC 1780
Country Western Dance I
1
Teaches Western Swing, Line Dances, Texas Two-Step, Cotton Eyed Joe, Schottische, and Heel Toe polka. Stresses rhythm, dance with a partner, and developing a country western dance style. Uses lecture, demonstration, and active class participation.

DANC 1790
Country Western Dance II
1
* Prerequisite(s): DANC 1780
Teaches Pony Swing, East Coast Swing, Waltz, Two-Step, and Line Dances. Stresses rhythm, dance with a partner, and developing a country western dance style. Uses lecture, demonstration, and active class participation.

DANC 2100
Teaching Dance for Children FF
3
Introduces fundamentals of teaching dance to children in the community, school and home. Includes philosophy, educational benefits, lesson integration, and teaching methods. Emphasizes content creation based on state and national standards. Assists students to become independent, creative, and productive learners as they acquire the knowledge, skills, and experience to teach children ages 5–12.
Course Descriptions

DANC 2110
Orientation to Dance FF
3
For students interested in pursuing a career in dance. Introduces students to the discipline of dance as an academic as well as artistic field of study. Examines various dimensions of the discipline such as performance, teaching, choreography, dance science/medicine, movement analysis and fundamentals, dance criticism, interdisciplinary collaboration, and current issues. Includes lecture, readings, discussion, writing and participation. Prepares the student entering the Dance emphasis. Course Lab fee of $32 applies.

DANC 221R
Pointe II
1
* Prerequisite(s): By audition only.

For dance majors and other students with an interest in the professional dance world. Emphasizes women's pointe work. Builds strength and control necessary for further advanced study. Explores various music components necessary for development of virtuosity en pointe. Completers will have skills necessary to progress to advanced pointe class. Includes guest choreographers and teachers. May be repeated for a total of six credits toward graduation. Course Lab fee of $120 for support applies.

DANC 222R
Allegro Dance II
1
* Corequisite(s): DANC 227R or DANC 327R

Focuses on allegro ballet technique at a beginning level and introduces dance majors and other interested students to jumps, turns, and other allegro technical abilities. Builds strength and control necessary for further intermediate study. Explores the development of musicality and epaulement as it relates to artistic interpretations. Prepares students to perform simple allegro variations from the classical repertoire. May be repeated for a maximum of 4 credits toward graduation.

DANC 225R
Character Dance I
1
* Prerequisite(s): Intermediate equivalent skill level to be determined by audition

Teaches theatre dance based on ethnic styles within ballet performance context to students at an intermediate or higher skill level. May be repeated for a maximum of 3 credits toward graduation.

DANC 2260
Character Dance II
1
* Prerequisite(s): DANC 225R

Teaches Character Dance for ballet students at an advanced skill level. Studies theatre dance based on ethnic styles within ballet performance context.

DANC 227R
Ballet Technique II
3
* Prerequisite(s): Instructor Approval

For intermediate level ballet students. Requires ability to handle the varying technical difficulties of classical ballet. Includes theories from Soviet, French, Italian, American, English, and Danish schools. Provides hands-on experience in barre and center floor work to increase strength, flexibility, and artistic interpretation. Emphasizes body alignment and correct placement. Successful completers should be fully prepared to participate in an upper division classical ballet course. May be repeated for a total of 18 credits. Course Lab fee of $216 for support applies.

DANC 2300
Improvisation
1
For students interested in experiencing and developing skills in physical inventiveness and performance intuition and immediacy. Provides guided exploration in the elements of dance for the creative development of personal movement vocabulary, spontaneous group interaction, and the ability to recall and give form to movement generated improvisationally. Course lab fee of $64 for Dance Accompanist applies.

DANC 2340
Composition
2
* Prerequisite(s): DANC 2330

* Prerequisite(s) or Corequisite(s): DANC 143R, or DANC 144R, or Instructor Approval

For students interested in experiencing and developing skills in dance composition. Includes conceptual and practical exploration of the basic elements of dance in both solo and group forms. Investigates the relationship between choreographic intention, movement invention, content, and form/structure. Introduces choreographic devices and forms and encourages experimentation in the choreographic process. Emphasizes the process of creating and giving form to a personal movement vocabulary. Course lab fee of $85 for Dance Accompanist applies.

DANC 2350
Dance and Technology
2

Explores fundamental approach to Dance for Camera in its various forms. Includes documentary-style videos as well as the creation of dances made specifically for the screen. Explores three-dimensional movement through the two-dimensional medium of the camera. Examines how editing choices creates dance composition in video form. Discusses aesthetic and historical representations of the body through media. Covers choreography for the camera, video camera basics, elements of a video shoot, and video-editing while preparing the student for further integration of dance and technology, such as the use of video projection during live dance performance. Provides the necessary skills to professionally produce video resumes. Lab access fee of $10 for computers applies.

DANC 243R
Modern/Contemporary Dance Technique and Theory Level II /Semester I
3
* Prerequisite(s): by audition

Teaches fundamental body and performance technique. Emphasizes locomotor skills and movement progressions as well as elements of body, effort, shape, space, and time. May be repeated for 9 credits toward graduation. Course Lab fee of $216 for support applies.

DANC 244R
Modern/Contemporary Dance Technique and Theory Level II/Semester II
3
* Prerequisite(s): DANC 243R

Focuses on development of technical and performance skills in modern/contemporary dance. Includes concepts of applied anatomy and kinesiology as well as Bartenieff Fundamentals. Emphasizes clarity of movement intent and interpretation in movement progressions. May be repeated for a maximum of 9 credits towards graduation. Course Lab fee of $216 for support applies.

DANC 247R
Repertory
1
* Prerequisite(s): By Audition

* Corequisite(s): DANC 143R, DANC 144R, DANC 243R, or DANC 244R

For students with advanced technical, performance, and artistic skills in Modern/Contemporary Dance interested in performing amateur and professional choreographic works. Emphasizes study and performance of student, guest, and faculty choreography. Introduces students to choreographic approaches of historical and current works. Includes performance in formal and informal concerts. Repeatable for a maximum of three credit hours.
DANC 248R
Special Topics In Dance
2
Provides students an in-depth exploration of specialized dance forms outside of traditional course offerings, with an emphasis on World Dance forms such as Polynesian, Classical Indian, Argentine Tango, Capoeira, Balinese and Tibetan Folk Dance. Focuses on learning specific dance forms through active participation. Includes integration of theoretical, historical and social concepts which deepen the student's understanding of the context in which the dance form was practiced historically and is practiced today. May be repeated for a total of 6 credits towards graduation.

DANC 250R
Advanced Jazz Dance
2
* Prerequisite(s): Instructor Approval
Explores advanced level jazz technique, performance and composition skills. Includes preparation for the professional audition through movement experiences, lecture with group discussions, video, guest teacher(s), and group projects. May be repeated for a total of six credit hours.

DANC 256G
Dance as a Cultural Practice I
3
* Prerequisite(s): Matriculation in any BFA or BS Dance major
Explores the richness and beauty of various cultures from around the world through the medium of dance. Takes a critical cultural approach to the study of dance as a means of encoding cultural values. Analyzes issues of gender, identity, religion, power, art, semiotics, and media/technology in relation to dance. Teaches students a deeper knowledge of cultures through their dance forms by participation in movement classes, informal performances, and dance-related cultural events in class, on campus, and in the community. Serves to deepen the student's understanding of the profound relationship between dance and culture, and dance and human existence throughout time through readings, group discussions, interactive assignments, cultural research projects, concert attendance, writing, dancing, singing and playing music. Explores the evolution and dissemination of the various cultural dance forms studied in class. Course Lab fee of $40 applies.

DANC 256R
African Dance II
1
* Prerequisite(s): DANC 156R or previous African Dance experience
Explores dance traditions of West and Central Africa, as well as other countries in the African Diaspora, including Brazil, Cuba, and Haiti. Focuses on strong foundational skills in various African dance styles and emphasizes the cultural and historical significance of the various dances and rhythms. Explores more complex movement and rhythmic structures than African I and challenges the students' physical stamina. Accompanied by live drumming. May be repeated for a maximum of 3 credits toward graduation. Course fee of $50 for support applies.

DANC 258R
Tap Dance II
1
Introduces intermediate steps and rhythms of tap dance. Reviews the history of this American theatrical dance form. May be repeated for a maximum of 3 credits toward graduation.

DANC 265R
Fundamentals of Movement
2
* Prerequisite(s): DANC 120R recommended
Explores methods of moving with greater ease, efficiency, and sense of connection in the body. Emphasizes body awareness and developmental human movement patterning. Makes application to the areas of dance, sport, theater, somatics, performance, and psychology. Includes Bartenieff Fundamentals and basic principles of Laban Movement Analysis. Develops integrated and harmonious movement patterns in the body. May be repeated for a maximum of 4 credits toward graduation.

DANC 2670
Introduction to Laban Studies
2
* Prerequisite(s): DANC 265R or Matriculation in BS Dance Education Program
Introduces the basic principles of Laban Movement Analysis (LMA). Presents a comprehensive system for analyzing the complexity of human movement based on the theories of Rudolph Laban and Ingmar Bartenieff. Utilizes physical performance and observation methods. Emphasizes the process of perceiving and making meaning of human movement from a variety of contexts.

DANC 270R
American Social Dance II
1
* Prerequisite(s): Instructor Approval
For students with Bronze level American Social Dance experience or equivalent. Teaches intermediate (Silver) level patterns of American Social Dance including Fox trot, Waltz, Triple Swing, Viennese Waltz, West Coast Swing, and Cha Cha. Emphasizes, on an intermediate level, correct rhythm, poise, footwork, and foot positions, dance position, and etiquette. Successful completers will have a good general knowledge of Silver level curriculum. May be repeated for a maximum of 2 credits toward graduation. Course fee of $15 for practical experience applies.

DANC 271R
International Ballroom Dance II
1
* Prerequisite(s): Instructor Approval
For students with Bronze level International Ballroom Dance experience. Teaches the intermediate (Silver) level patterns of International Style Waltz, Quickstep, Tango, Fox trot, and Viennese Waltz. Emphasizes, on an intermediate level, rhythm, poise, footwork, foot positions, dance position, alignment, rise and fall, body flight and correct leading and following. Successful completers will have a good general knowledge of Silver level curriculum. May be repeated for a total of two credits toward graduation. Course fee of $15 for practical experience applies.

DANC 272R
Latin Ballroom Dance II
1
* Prerequisite(s): Instructor Approval
For students with Bronze level Latin Ballroom Dance experience or equivalent skill level. Teaches the intermediate (Silver) level patterns of International Style Rumba, Samba, Cha Cha, and Paso Doble. Emphasizes, on an intermediate level, rhythm, poise, footwork, foot positions, dance position, alignment, and correct leading and following. Successful completers will develop a good general knowledge of Silver level curriculum. May be repeated for a total of two credits toward graduation. Course fee of $15 for practical experience applies.

DANC 276R
Ballroom Dance Company Back Up Team
1
* Prerequisite(s): By audition only.
For students with or without prior ballroom dance team experience. Teaches American and International techniques as a performance discipline. Includes choreography, rehearsals, performances, demonstrations, competition. Also teaches fundamentals of formation team dancing, stage performance and team competition. Requires individual practice. Prepares dancers for audition to touring team. May be repeated for up to four credits toward graduation. Course fee of $45 for specialized clothing applies.
DANC 281R
Internship in Dance I
1 to 3
* Prerequisite(s): Departmental Approval
Provides an opportunity for students to receive college credit and explore career options in dance by working in dance-related fields. Applies academic concepts to actual work experiences. Requires approval of faculty sponsor and completion and acceptance of application. Requires completion of an orientation, completion of Master Agreement between UVU and employer, completion of goals and tasks as required by academic department, and completion of final evaluation. May be repeated for a total of 6 credits towards graduation. May be graded credit/no credit.

DANC 3140
Dance Production and Lighting
2
* Prerequisite(s): University Advanced Standing
Introduces essential aspects of dance production. Focuses on theory and practice of lighting for dance. Includes consideration of costuming, set design, sound design, backstage organization, make-up for dance, promotion, and programming. Includes lecture and lab experience.

DANC 3160
Dance Accompaniment
2
* Prerequisite(s): University Advanced Standing
Designed for students interested in musical accompaniment for dance. Explores rhythmic structures and its components in music and dance, composing a percussion score for dance, and building percussion instruments. Emphasizes practical skills in performing simple and complex rhythmic patterns on drum. Includes participation, writing, lecture, and discussion.

DANC 321R
Pointe III
1
* Prerequisite(s): Advanced equivalent skill level to be determined by audition.
* Corequisite(s): DANC 327R
For women dance majors and others with an interest in the professional dance world. Emphasizes pointe. Builds strength and control. Explores various styles from classical and contemporary repertoire. Women develop successful virtuosity en pointe. Completers will have skills necessary to perform at an advanced technical skill level and have skills necessary to perform variations from classical repertoire. Includes guest teachers. May be repeated for a total of six credits towards graduation. Course Lab fee of $120 for support applies.

DANC 322R
Allegro Dance III
1
* Corequisite(s): DANC 327R or DANC 427R
Focuses on allegro ballet technique at an intermediate level. Explores jumps, turns, and other allegro technical abilities. Builds strength and control necessary for further advanced study. Explores the development of musicality and epaulement as it relates to artistic interpretations. Prepares students to perform intermediate and advanced allegro variations from the classical repertoire. May be repeated for a maximum of 4 credits toward graduation.

DANC 327R
Ballet Technique III
3
* Prerequisite(s): DANC 227R or Advanced equivalent skill level to be determined by audition
For ballet students at an advanced skill level who are able to handle the varying technical difficulties of classical ballet. Provides hands-on experience in barre and center floor work to increase strength and flexibility. Emphasizes the development of musicality as it relates to artistic interpretations. Successful completers will be prepared to participate on a corp de ballet professional performance level. May be repeated for a total of 18 credits toward graduation. Course Lab fee of $216 for support applies.

DANC 330
Modern Dance Workshop
2
* Prerequisite(s): DANC 2340 and University Advanced Standing
A continuation of DANC 2330 and DANC 2340. Emphasizes the relationship between improvisation and composition in the choreographic process. Focuses on developing fluency in creating and developing content and creating appropriate form for that content. Explores established choreographic forms in both solo and small group settings. Requires some choreographic work outside of class.

DANC 3340
Ballet Choreography
2
* Prerequisite(s): DANC 2230, DANC 2340, and University Advanced Standing
* Corequisite(s): (DANC 327R, DANC 427R, or DANC 428R) and (DANC 321R or DANC 421R)
For dance majors desiring ballet emphasis. Investigates and explores the choreographic process with relationship to narration as well as all choreographic concepts. Includes the creation of student works that give shape and form to ideas based on a specific theme or statements. Examines plot, character, and theme as part of the creative process.

DANC 3350
Choreography
2
* Prerequisite(s): DANC 3330 and University Advanced Standing
Provides in-depth experience in the choreographic process. Focuses on development of personal voice in choreography and the ability to generate choreographic form intrinsic to thematic content. Explores the use of choreographic forms and devices as means of developing thematic content. Requires intensive exploration of the creative process through imaginative thinking, creating, and crafting in movement.

DANC 3400
Dance in the Elementary School
2
* Prerequisite(s): University Advanced Standing
Introduces the philosophy, educational benefits, and teaching methods of dance for children. Teaches movement as an effective and motivational medium for building self awareness, expression, and discipline. Develops skills in the psychomotor, affective, and cognitive domains. Places emphasis on learning through problem-solving and on integrative learning. Addresses the Utah State Core Curriculum in Dance for the elementary school. Completion of a second course is required to satisfy the fine arts requirements (see Graduation section of catalog).

DANC 341R
Modern/Contemporary Dance Technique and Theory Level III/ Semester I
3
* Prerequisite(s): By audition
Builds technical, performance, and theoretical understanding and skills in modern/contemporary dance. Emphasizes body and performance techniques; axial and locomotor skills; total body connectivity movement progressions; increased spacial, rhythmic, and qualitative acuity; risk-taking; and movement commitment. Includes aspects of composition, improvisation, and performance as they relate to technique. May be repeated for up to 9 credits total toward graduation. Course Lab fee of $216 for support applies.

DANC 3420
Dance in the Elementary Schools Practicum
3
* Prerequisite(s): DANC 3400 and University Advanced Standing
Builds on the methods, strategies, and dance pedagogy studied in the DANC 3400 Dance in the Elementary Schools course. Focuses on the practicum experience in the elementary schools using the Utah Secondary Dance Core Curriculum.
DANC 342R
Modern/Contemporary Dance Technique and Theory Level III/ Semester II
3
* Prerequisite(s): DANC 341R or by audition
Builds technical, performance and theoretical understanding and skills in modern/ contemporary dance. Expands on the skills and concepts introduced in DANC 341R. Emphasizes body and performance techniques, axial and locomotor skills, total body connectivity movement progressions; increased spacial, rhythmical, and qualitative acuity; risk-taking; and movement commitment. Includes aspects of composition, improvisation, and performance as they relate to technique. May be repeated for up to 9 credits total toward graduation. Course Lab fee of $216 for support applies.

DANC 3400
Modern/Contemporary Dance Teaching Methods
3
* Prerequisite(s): DANC 3400 and University Advanced Standing
Introduces methodologies, strategies, ideologies, and philosophies of dance pedagogy based on current research and practices. Emphasizes lesson plan writing using the Utah State Secondary Dance Core Curriculum and the National Dance Standards. Integrates theory and practice through lecture, discussion, writing, and classroom teaching experiences in the college and public school settings.

DANC 346R
Synergy Dance Company
3
* Prerequisite(s): Audition required
* Corequisite(s): DANC 143R or DANC 144R or DANC 243R or DANC 244R or DANC 341R or DANC 342R or DANC 441R or DANC 442R
Designed for students to gain more advanced understanding of artistry through the process and performance of student, faculty, and guest choreography in a formal and informal performance settings. Combines participation in technique, performance, composition, and improvisation. Also includes lectures and demonstrations for local schools and other interested groups. May be repeated for a maximum of 9 credits toward graduation. Course Lab fee of $74 for practical experience applies.

DANC 348R
Special Topics in Dance
1 to 3
* Prerequisite(s): University Advanced Standing and Department Approval
Addresses emerging topics, issues, and developments related to dance. Includes lectures, demonstrations, and studio time for application and evaluation. May be repeated for a maximum of 9 credits toward graduation.

DANC 349R
Advanced Fundamentals of Movement 2
3
* Prerequisite(s): DANC 265R or equivalent, DANC 2670 or equivalent, and University Advanced Standing
Continues and deepens the content of DANC 265R. Emphasizes application of principles of Bartenieff Fundamentals to varied movement contexts. Explores the connections between Laban Movement Analysis (LMA) elements of Body, Effort, Shape, and Space and applies the connections to developing increased ease in movement function and liveliness of expression in many movement forms. Develops increased skill and awareness in movement sensation, perception, practice, observation, analysis, prescription, and interpretation. Utilizes LMA symbology. Involves lecture, participation, observation, and written and verbal analysis. May be repeated for 4 credits toward graduation.

DANC 361R
Intermediate Dance Conditioning and Injury Prevention
2
* Prerequisite(s): DANC 161R and University Advanced Standing
Covers the theory and practice of core conditioning principles with specific application to dance. Includes regularly scheduled conditioning work outs with accompanying lectures, where recognition and appropriate responses to common dance injuries will be discussed.

DANC 3630
Dance as a Cultural Practice II WE
3
* Prerequisite(s): ENGL 2010, DANC 2110, DANC 256G, and University Advanced Standing
Continues the study of dance as a cultural practice. Takes a critical cultural approach to the study of dance as a means of encoding cultural values. Emphasizes critical theories of dance, representation, identity, view of the body through the application of Post-Modern Critical Theories/Frames of Analysis. Explores the relationship of dance to Medieval, Renaissance, Baroque, Classical, Romantic, and Modern cultures. Explores keystone dance history concepts and the work of various recognized dance scholars. Introduces students to a wide range of publications in the field. Includes lecture and movement experiences. Emphasizes skills of critical analysis, synthesis, and interpretation in writing about dance.

DANC 365R
Course Descriptions
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DANC 3690
Motif and Labanotation I
2
* Prerequisite(s): DANC 265R, DANC 2670, and University Advanced Standing

Teaches Motif Writing and beginning Labanotation. Expands students’ understanding of the written symbol system of Laban Movement Analysis and deepens observation and analysis skills critical for understanding dance and varied manifestations of human movement expression. Includes application of Motif Writing to teaching dance technique, composition, and improvisation. Emphasizes the theory of human movement description and analysis formulated by Rudolph Laban and requires students to both write and read beginning to intermediate level notated scores. Includes lecture, discussion, observation, and participation including reading from score, written and embodied symbology assignments, teaching assignments, and completion of several creative projects.

DANC 370R
American Social Dance III
1
* Prerequisite(s): Instructor Approval

For students who have successfully completed Bronze and Silver American Social Dance courses and for members of the Ballroom Tour Team. Teaches the advanced (Gold) level patterns of American Style Foxtrot, Cha Cha, Waltz, Triple Swing, Viennese Waltz, and West Coast Swing. Emphasizes on an advanced level, correct poise, style, rhythm. Also teaches correct footwork, foot position, alignments, rise and fall, partnering, correct leading and following, and etiquette. First semester successful completers will have a general knowledge of Gold level curriculum. Second semester successful completers will have an in-depth knowledge of Gold level curriculum. May be repeated for two credits toward graduation. Course fee of $20 for practical experience applies.

DANC 371R
International Ballroom Dance III
1
* Prerequisite(s): Instructor Approval

For students who have successfully completed Bronze and Silver International Ballroom Dance courses and for members of the Ballroom Tour Team. Teaches the advanced (Gold) level patterns of International Style Waltz, Quickstep, Tango, Foxtrot, and Viennese Waltz. Emphasizes on an advanced level, correct poise, style, rhythm. Also teaches correct footwork, foot positions, alignments, rise and fall, partnering, floor craft, and correct leading and following. First semester focuses on developing a general knowledge of Gold level curriculum. Second semester focuses on developing an in-depth knowledge of Gold level curriculum. May be repeated for a maximum of 4 credits toward graduation. Course fee of $20 for practical experience applies.

DANC 372R
Latin Ballroom Dance III
1
* Prerequisite(s): Instructor Approval

For students who have successfully completed Bronze and Silver Latin Ballroom Dance courses and for members of the Ballroom Tour Team. Teaches the advanced (Gold) level patterns of Latin Style Rumba, Samba, Cha Cha, Paso Doble, and Jive. Emphasizes on an advanced level, correct poise, style, and rhythm. Also teaches correct footwork, foot position, alignments, rise and fall, partnering, correct leading and following, and style. First semester successful completers will have a general knowledge of Gold level curriculum. Second semester successful completers will have an in-depth knowledge of Gold level curriculum. May be repeated for a maximum of 4 credits toward graduation. Course fee of $20 for practical experience applies.

DANC 3730
American Social Dance Teaching Methods
2
* Prerequisite(s): DANC 270R or equivalent skill level, and University Advanced Standing

Focuses primarily on Social Dance teaching techniques using Bronze level patterns. Emphasizes calling steps. Explores proper music selection and tempo. Includes actual teaching time of peers and a beginning class. Prepares students to adequately teach social dance in either a formal or informal setting.

DANC 3740
Ballroom Dance Choreography
2
* Prerequisite(s): (DANC 270R, DANC 271R, DANC 272R, or Instructor Approval) and University Advanced Standing

Investigates and explores the choreographic process with reference to choreographic concepts. Involves the creation of dance skills that give shape and form to ideas based on a specific theme, style, or statement. Includes Latin, International Ballroom, American Rhythm and Smooth, and Cabaret styles. Explores formation team competition, solo couple competition, formation team stage performance, and solo couple stage performance as part of the creative process.

DANC 3750
Studies in Ballroom Dance Styles
2
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing

Investigates and explores historical ballroom dance styles. Emphasizes the social and cultural context in which ballroom dance is created and performed. Includes career, life style, education, gender, moral and ethical concerns related to ballroom dance issues. Also covers ballroom dance history, evolution, and current trends. Identifies similarities and differences between ballroom dance and other dance forms. Involves discussion, lecture, research, student presentations and participation.

DANC 376R
Ballroom Dance Company Back-up Tour Team
2
* Prerequisite(s): Audition

For students with advanced ballroom dance experience. Teaches American, International Ballroom, and Latin techniques using intermediate and advanced choreography in performance and competitive discipline. Includes choreography, stage performances, competitions, and demonstrations with increased emphasis on dance technique and proper execution of formations. Requires individual practice. Prepares dancers for audition to touring team. May be repeated for eight credits toward graduation. Course fee of $45 for specialized clothing and materials applies.
DANC 421R
Pointe IV
1
* Prerequisite(s): Advanced equivalent skill level to be determined by audition
* Corequisite(s): DANC 427R

For women dance majors and other students with an interest in the professional dance world. Emphasizes pointe. Continues to build strength and control through increased complexity. Explores advanced levels of styles from classical and contemporary repertoire. Develops virtuosity en pointe. Prepares students to perform at a professional technical skill level. Includes guest teachers. May be repeated for a total of six credits toward graduation. Course Lab fee of $120 for support applies.

DANC 422R
Allegro Dance IV
1
* Prerequisite(s): Intermediate/Advanced equivalent skill level to be determined by audition.
* Corequisite(s): DANC 227R or DANC 327R or DANC 427R

Emphasizes jumps, turns and other technical abilities specific to allegro dance at an advanced level. Builds strength and control necessary for performing allegro dance variation, particularly from the classical ballet repertoire. Explores the development of musicality as it relates to artistic interpretations. May be repeated for a maximum of 8 credits toward graduation.

DANC 423R
Pointe V
1
* Prerequisite(s): DANC 321R or to be determined by audition
* Corequisite(s): DANC 427R or DANC 428R

For women dance majors and other students with an interest in the professional dance world. Emphasizes pointe. In-depth study of styles from classical and contemporary repertoire. Women develop successful virtuosity en pointe. Completers will have skills necessary to perform at an professional technical and artistic skill level and have the advanced experience necessary to pursue a professional career in Dance. Includes guest teachers. May be repeated for a total of six credits toward graduation. Course Lab fee of $120 for support applies.

DANC 424R
Pas de deux
1
* Prerequisite(s): (DANC 321R or DANC 327R) and (DANC 421R or DANC 427R or DANC 428R); advanced equivalent skill level to be determined by audition.
* Corequisite(s): (DANC 427R or DANC 428R) and (DANC 421R or DANC 423R)

For dance majors and other students with an interest in developing their advanced level technique. Emphasizes work as pairs through tradition styling and classical technique. Explores various pas de deux from classical through contemporary repertory. Includes master guest teachers and study of traditional classical pas de deux choreography. Teaches skills necessary to perform pas de deux from classical repertoire. May be repeated for a total of four credits toward graduation. Course Lab fee of $126 applies.

DANC 425R
Repertory Ballet Ensemble
3
* Prerequisite(s): Audition required
* Corequisite(s): DANC 327R or DANC 427R

For serious ballet students showing a high level of talent and technical achievement. Explores the development of artistic interpretation as students learn styles of various repertoire works. Prepares students to perform as a competent corps de ballet member. May be repeated for a maximum of 9 credits toward graduation. Course fee of $75 for specialized clothing applies.

DANC 426R
Ballet Pedagogy
3
* Prerequisite(s): University Advanced Standing

Emphasizes appropriate teaching methodologies for all levels of ballet technique, pointe and men's class. Develops interpersonal skills as they relate to classroom management. Explores the styles and teaching methodologies of all ballet schoolings/styles to help students develop and construct effective lesson plans and curriculum. Course Lab fee of $61 applies.

DANC 427R
Ballet Technique IV
3
* Prerequisite(s): DANC 327R or advanced equivalent skill level to be determined by audition
* Corequisite(s): DANC 421R

For ballet students at an advanced skill level who are able to handle the varying technical difficulties of classical ballet. Provides experience in barre and center floor work to increase strength and flexibility. Emphasizes the development of musicality as it relates to artistic interpretations. Successful completers will be prepared to participate on a corp de ballet professional performance level. May be repeated for a total of 18 credits toward graduation. Course Lab fee of $216 for support applies.

DANC 428R
Ballet Technique V
3
* Prerequisite(s): DANC 427R or advanced equivalent skill level to be determined by audition
* Corequisite(s): DANC 421R or DANC 423R

For ballet students who successfully audition for Utah Regional Ballet Company at an advanced skill level and artistic skill level who are prepared for the technical difficulties required at a professional level. Provides hands-on experience in barre and center floor work to fully develop the professional artist. Successful completers will be prepared to participate on a professional performance level. May be repeated for a total of 24 credits toward graduation. Course Lab fee of $216 for support applies.

DANC 429R
Utah Metropolitan Ballet Repertory
3
* Prerequisite(s): Advanced/Professional Skill level; determined by audition
* Corequisite(s): (DANC 421R, DANC 423R) or DANC 427R, DANC 428R

For serious ballet students showing a high level of talent and technical achievement. Explores the development of artistic interpretation as students learn styles of various repertoire works. Successful completers should be qualified to perform as a competent corps de ballet member. May be repeated for a maximum of 9 credits toward graduation. Course fee of $50 for specialized clothing applies.

DANC 4350
Senior Capstone I WE
2
* Prerequisite(s): DANC 3140, DANC 3630, DANC 3680, and (DANC 3340, or DANC 3350, or DANC 3740), and University Advanced Standing

Prepares senior dance majors with the skills, resources, and portfolio/marketing materials needed to apply for graduate work or professional opportunities in dance. Emphasizes digital portfolio development and biographical writing, personal web page creation, audition and interview strategies, and dance resources. Includes writing, performance, research, video editing and multimedia work. Course fee of $16 applies.

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DANC 4360  
Senior Capstone II WE  
2  
* Prerequisite(s): DANC 3680 and DANC 4350 and DANC 4880 (and DANC 3340 or DANC 3350 or DANC 3740 with a B- or higher) and University Advanced Standing  
Designed for senior dance students as the second course in a capstone sequence. Emphasizes through choreography, performance, and production a synthesis of the knowledge and skills developed in the B.S. and B.F.A. degrees in Dance. Includes writing, collaborative work, discussion, lecture, and intensive study and preparation of choreography. Course fee of $66 applies.

DANC 441R  
Modern/Contemporary Dance Technique and Theory Level IV/Semester I  
3  
* Prerequisite(s): By audition  
Builds technical, performance, and theoretical understanding and skills in modern dance/contemporary dance. Emphasizes body and performance techniques, axial and locomotor skills, total body connectivity, movement progressions, increased spatial, rhythmic and qualitative acuity, risk-taking, and movement commitment. Includes aspects of composition, improvisation, and performance as they relate to technique. May be repeated for up to 9 credits total towards graduation. Course Lab fee of $216 for support applies.

DANC 442R  
Modern/Contemporary Dance Technique and Theory Level IV/ Semester II  
3  
* Prerequisite(s): DANC 441R or by audition  
Builds rigorous technical, performance, and theoretical training. Emphasizes advanced performance sequences and progressions that utilize technical, kinesthetic, and expressive skills. Includes challenging spatial, rhythmic, and qualitative performance skills, risk-taking, and movement commitment. Includes aspects of composition, improvisation, and performance as they relate to technique. May be repeated for up to 9 credits total toward graduation. Course Lab fee of $216 for support applies.

DANC 4430  
Dance Teaching Practicum  
3  
* Prerequisite(s): DANC 3450 and University Advanced Standing  
For secondary dance licensure majors or dance majors interested in dance pedagogy. Builds on the methodologies, strategies, ideologies and philosophies of dance pedagogy studied in DANC 3430. Emphasizes lesson plan and unit development, instruction, and assessment based on the National and Utah State Dance Standards. Focuses on the integration of theory and practice during a practicum experience in the secondary public schools setting. Includes writing, reading, discussion, and participation.

DANC 446R  
Contemporary Dance Ensemble  
3  
* Prerequisite(s): By audition  
Corequisite(s): DANC 341R or DANC 342R or DANC 441R or DANC 442R  
Designed for students with advanced technical, performance, and artistic skills. Provides students interested in further developing their artistry with opportunities to perform the works of professional choreographers in formal and informal settings. Explores a variety of contemporary and historical choreographic approaches. Prepares students for work in a professional modern dance company. May be repeated for a maximum of 9 credits toward graduation. Course Lab fee of $75 for practical experience applies.

DANC 447R  
International Ballroom Dance IV  
2  
* Prerequisite(s): Instructor Approval  
For students who have successfully completed Bronze, Silver and Gold International Ballroom Dance classes and for members of the Ballroom Tour Team. Prepares students to dance, choreograph and compete on a championship amateur level. Teaches the Advanced (Gold-Bar) level patterns of International style Waltz, Quickstep, Tango, Foxtrot, and Viennese Waltz. Emphasizes, on a pre-professional level, correct poise, style, and rhythm. Also teaches and enhances correct footwork, foot positions, alignments, rise and fall, partnering, floor craft, body flight, precedes and follows, and correct leading and following. First semester focuses on developing a general knowledge of Gold-Bar level curriculum. Second semester focuses on developing an in-depth knowledge of Gold-Bar level curriculum. May be repeated for a maximum of 8 credits toward graduation. Course fee of $20 for practical experience applies.

DANC 448R  
Latin Ballroom Dance IV  
2  
* Prerequisite(s): Instructor Approval  
For students who have successfully completed Bronze, Silver and Gold International Ballroom Dance classes and for members of the Ballroom Tour Team. Prepares students to dance, choreograph and compete on a championship amateur level. Teaches the advanced (Gold-Bar) level patterns of Latin style Rumba, Samba, Cha Cha, Paso Doble, and Jive. Emphasizes, on a pre-professional level, correct poise, style, and rhythm. Also teaches and enhances correct footwork, foot positions, Cuban action, alignments, rise and fall, partnering, floor craft, precedes and follows, and correct leading and following. First semester focuses on developing a general knowledge of Gold-Bar level curriculum. Second semester focuses on developing an in-depth knowledge of Gold-Bar level curriculum. May be repeated for a maximum of 8 credits toward graduation. Course fee of $20 for practical experience applies.

DANC 470R  
International Ballroom and Latin Theory  
3  
* Prerequisite(s): DANC 271R, DANC 272R, and University Advanced Standing  
Covers technical and theoretical aspects of basic figures in Waltz, Tango, Foxtrot, Quickstep, Cha Cha, Samba, Rumba, Paso Doble, and Jive, such as footwork, amounts of turn and rhythm. Emphasizes correct teaching methods associated with each dance. Prepares students to obtain membership in the Imperial Society of Teachers of Ballroom Dance and to teach professionally.

DANC 476R  
Ballroom Dance Company Tour Team  
3  
* Prerequisite(s): Audition  
For students with advanced Ballroom Dance Team experience. Teaches advanced technique in performance and competitive discipline. Includes choreography, performances, demonstrations, and tours, in formation team dancing, stage performance, team competition, team match, and individual competitive events. Requires individual practice. May be repeated for 12 credits toward graduation. Course fee of $100 for specialized clothing and materials applies.

DANC 481R  
Internship in Dance II  
1 to 3  
* Prerequisite(s): Matriculation in BFA or BS in Dance and Departmental Approval, and University Advanced Standing  
Provides an opportunity for upper-division students to receive college credit and work in a dance-related field. Offers students the opportunity to focus on a specific career path and prepare themselves to enter the profession. Applies academic concepts to actual work experiences. Requires approval of faculty sponsor and completion and acceptance of application. Also requires completion of an orientation, completion of Master Agreement between UVU and employer, completion of goals and tasks as required by academic department, and completion of final evaluation. May be repeated for a total of 6 credits towards graduation. May be graded credit/no credit.

DANC 4880  
Current Issues in Dance  
3  
* Prerequisite(s): DANC 3630, and University Advanced Standing  
Introduces students to the issues and philosophical views that have influenced dance and other art forms. Examines current trends and issues in dance. Includes lecture, discussion, readings, video, guest artists, and collaborative projects.
Dental Hygiene (DENT)

DENT 1000
Introduction to Dental Professions
1
Explores the main aspects of the dental profession. Introduces head and neck anatomy, tooth morphology, periodontology, and dental instrumentation skills. Explains the various dental specialty programs. Studies broad topics in dental professions.

DENT 1010
Dental Hygiene I
3
* Prerequisite(s): Acceptance into Dental Hygiene program
* Corequisite(s): DENT 1015

For students accepted into the Dental Hygiene Program. Introduces basic principles and skills used in the practice of dental hygiene, including infection control, patient assessment and treatment. Requires practicing on dental mannequins and student patients. Teaches all skills to clinical competence. Builds on basic and dental sciences and is foundational for the ensuing Dental Hygiene II, III, and IV courses. Course fee of $375 for practical experience applies.

DENT 1015
Dental Hygiene I Preclinical lab
2
* Prerequisite(s): Acceptance into Dental Hygiene program
* Corequisite(s): DENT 1010

For students accepted into the Dental Hygiene Program. Introduces basic principles and skills used in the clinical practice of dental hygiene, including infection control, patient assessment and treatment. Skills are practiced in a preclinical setting on dental mannequins and student patients; all skills are taught to clinical competence. Builds on basic and dental sciences and prepares for clinical dental hygiene practice on community patients. Course Lab fee of $73 applies.

DENT 1020
Oral Anatomy and Physiology
4
* Prerequisite(s): Acceptance into Dental Hygiene program

For students in the Dental Hygiene Program. Focuses on the study of the normal development, structure, and function of the orofacial region. Provides gross and microscopic study of oral structures in a laboratory setting. Builds on basic sciences and prepares for the study of the dental sciences and clinical dental hygiene.

DENT 1030
Dental Materials
2
* Prerequisite(s): Accepted into Dental Hygiene program

Presents the history, composition, chemical, and physical properties and use of materials commonly utilized in the dental laboratory and dental operatory. Builds on dental sciences. Provides laboratory experience in performing common dental laboratory procedures and prepares for the clinical practice of expanded functions. Course Lab fee of $75 applies.

DENT 1040
Dental Hygiene II
3
* Prerequisite(s): Acceptance into Dental Hygiene program
* Corequisite(s): DENT 1015

Provides advanced dental hygiene modalities, including oral health education, practice management, patient assessment and treatment. Emphasizes treatment planning and emergency preparedness. Builds on basic and dental sciences and prepares for clinical dental hygiene practice. Course fee of $3175 for practical experience applies.

DENT 1045
Dental Hygiene II Clinical
3
* Prerequisite(s): Acceptance into Dental Hygiene program
* Corequisite(s): DENT 1040

Provides for developing clinical dental hygiene skills, practiced on patients in a clinical setting, including oral health education, practice management, patient assessment and treatment. Emphasizes treatment planning and emergency preparedness. All skills are taught to clinical competence. Builds on basic and dental sciences and prepares for clinical dental hygiene practice. Course Lab fee of $85 applies.

DENT 1050
Clinical Dental Radiography
1
* Prerequisite(s): Acceptance into Dental Hygiene program
* Corequisite(s): DENT 1055


DENT 1055
Clinical Dental Radiography Lab
1
* Prerequisite(s): Acceptance into Dental Hygiene program
* Corequisite(s): DENT 1050


DENT 1060
General and Oral Pathology
2
* Prerequisite(s): Acceptance into Dental Hygiene program

Focuses on the study of commonly encountered systemic and oral diseases; etiology, presentation, treatment and effect on dental treatment, including associated emergency procedures. Emphasizes the principles of inflammation, immunology, healing, and repair. Builds on basic and dental sciences and prepares for clinical dental hygiene practice.

DENT 1070
Medical Emergencies in the Dental Office
2
* Prerequisite(s): Acceptance into Dental Hygiene program

Introduces the basic principles and management of medical emergencies that could occur in a dental office, including the care and clinical management of medically compromised patients.

DENT 2020
Dental Pharmacology
3
* Prerequisite(s): Accepted into Dental Hygiene program

Focuses on pharmacology as it affects the clinical practice of dentistry. Emphasizes drugs commonly used in dentistry, for treatment of common systemic and oral diseases, and for emergency treatment: effects, administration, and toxicology. Builds on basic and dental sciences and prepares for clinical dental hygiene practice.
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DENT 206G
Oral Public Health
3
* Prerequisite(s): Acceptance into the Dental Hygiene Program
Examines the principles of community health, including assessment, planning, implementation, and evaluation of health care, with an emphasis on oral health. Builds on knowledge of ethics, basic and dental sciences, and clinical dental hygiene practice. Provides the knowledge and skills necessary to function in a community health setting and includes learning experiences in community health agencies. Analyzes and evaluates global or intercultural issues. Evaluates cultural rules and biases. Explores stereotypical cultural conceptions.

DENT 3010
Pain Management
3
* Prerequisite(s): Acceptance into Dental Hygiene program and University Advanced Standing
* Corequisite(s): DENT 3015
Focuses on pain control including local and topical oral anesthesia, nitrous oxide conscious sedation and other means of pain control, which is accepted as standard of care. Applies gained knowledge for direct clinical application on patients in the clinical setting. Demonstrates preclinical competence in the laboratory setting. Builds on basic and dental sciences and prepares the student for clinical dental hygiene practice and prepares students for regional anesthesia board exams. Course fee of $3175 for practical experience applies.

DENT 3015
Dental Hygiene III Clinical
4
* Prerequisite(s): Acceptance into Dental Hygiene program and University Advanced Standing
* Corequisite(s): DENT 3010
Introduces skills involving oral anesthesia (pain control) and supportive periodontal treatment. Utilizes advanced skills of dental hygiene practice, including assessment and treatment on patients of all ages in a clinical setting, with emphasis on planning and comprehensive treatment. Requires demonstration of clinical competence unless otherwise noted in the course outline. Includes more rigorous skill and patient difficulty levels than the first year clinical experiences. Builds on basic and dental sciences and foundational skills to include DENT3010, and prepares the student for clinical dental hygiene practice. Course Lab fee of $63 applies.

DENT 3030
Periodontology
3
* Prerequisite(s): Acceptance into the Dental Hygiene Program and University Advanced Standing
Focuses on the study of the healthy periodontal tissues, and the factors, recognition, and classes of periodontal disease. Provides background knowledge of nonsurgical and surgical treatment of periodontal disease. Builds on basic and dental sciences and prepares for clinical dental hygiene practice.

DENT 3040
Dental Hygiene IV
2
* Prerequisite(s): Acceptance into Dental Hygiene program and University Advanced Standing
* Corequisite(s): DENT 3045
Provides comprehensive didactic experience in all phases of dental hygiene practice for patients, regardless of special needs. Introduces nutritional and tobacco cessation counseling. Builds on basic and dental sciences and prepares for various practice settings in clinical dental hygiene. Course fee of $3175 for practical experience applies.

DENT 3045
Dental Hygiene IV Clinical
4
* Prerequisite(s): Acceptance into the Dental Hygiene Program and University Advanced Standing
* Corequisite(s): DENT 3040
Provides comprehensive clinical experience in all phases of dental hygiene practice for patients, to include special needs. Teaches to clinical competence. Introduces nutritional and tobacco cessation counseling. Builds on basic and dental sciences and prepares for various practice settings in clinical dental hygiene. Course Lab fee of $63 applies.

DENT 3050
Ethics and Practice Management
1
* Prerequisite(s): Acceptance into the Dental Hygiene Program
Explores topics relevant to contemporary practice of dental hygiene, including professional roles, career and stress management, ethical and legal aspects, and the role of the dental hygienist in the dental specialty practices. Builds on clinical practice and prepares for entry into the many aspects of the profession of dental hygiene. Includes observation of various dental specialty practices.

DENT 3060
Advanced Dental Hygiene Public Health
3
* Prerequisite(s): DENT 206G and University Advanced Standing

DENT 307G
Domestic Multicultural Experience
2
* Prerequisite(s): Accepted into Dental Hygiene program and University Advanced Standing
Examines the principles of community health, socioeconomic status and personal bias. Builds on knowledge of ethics, basic and dental sciences, and clinical dental hygiene practice. Provides the knowledge and skills necessary to function in a community health setting and includes learning experiences in community health agencies.

DENT 3100
Office and Private Practice for the Dental Hygienist
3
* Prerequisite(s): 2 year hygiene degree, departmental approval, and University Advanced Standing
Expands beyond the dental hygiene basics taught in hygiene school. Addresses topics in dental hygiene practice that will help the clinical dental hygienist become more proficient in their field and a leader in dental hygiene. Studies practice management issues, productivity, salary enhancement, cutting edge technology, dental insurance, salaries and benefits, team work, patients and money considerations, and other challenges faced in the dental hygiene profession.

DENT 3200
Teaching the Dental Hygiene Patient WE
3
* Prerequisite(s): Admission to the BS Dental Hygiene and University Advanced Standing
Addresses areas such as learning theories, teaching strategies, societal-cultural considerations, and evaluation and applies them specifically to the needs of the dental hygienist when teaching his/her patients and the community at large.
DENT 406G
Global Community Health Project 3
* Prerequisite(s): Admissions to the Dental Hygiene Program or upon approval by program director, and University Advanced Standing
Addresses the complexities inherent in global and/or intercultural oral health and the community health theories and strategies used to address these concerns. Includes the planning and execution of a 10 day oral health education or service project in either another culture or another country (e.g., Native American reservation in Utah or Guatemala). Students from all disciplines may participate.

DENT 4200
Teaching the Dental Hygiene Student 3
* Prerequisite(s): DENT 3200, DENT 3060, and University Advanced Standing
Prepares the dental hygienist to become a successful educator in a dental hygiene program by addressing areas such as: learning theories, teaching strategies, learning objectives, lesson plans, syllabi, curriculum design evaluation tools, and roles of an educator. May be delivered online.

DENT 4300
Dental Hygiene Capstone 1
* Prerequisite(s): Admission to the BS Dental Hygiene and University Advanced Standing
Requires the student to integrate several main areas of study in the BS program and create a paper or project that reflects comprehensive knowledge and ability to reflect, connect and then produce a work based on their learning experiences throughout the BS program.

DENT 481R
Internship in Dental Hygiene 1 to 4
* Prerequisite(s): University Advanced Standing and Dental Hygiene Department approval
Utilizes the student’s current practice as a dental hygienist to further apply and develop their skills and knowledge. May be repeated for up to 8 credits toward the BS Dental Hygiene.

DENT 489R
Undergraduate Research in Dental Hygiene WE 3
* Prerequisite(s): Acceptance into Dental Hygiene program and University Advanced Standing
Explores research proposal process and design. Provides opportunity to develop basic research skills in searching and critically appraising evidence-based literature. Engages in evidence-based decision making, developing clinical questions and translating research into practice. Creates a significant intellectual and creative research proposal in the dental discipline. May be repeated for a maximum of 6 credits toward graduation.

DENT 490R
Special Topics in Dental Hygiene 3
* Prerequisite(s): Accepted into Dental Hygiene program and University Advanced Standing
Explores special topics in Dental Hygiene. Focuses on current and future themes relevant to the profession of dental hygiene including societal, economic, and cultural impact. Topics are subject to change from year to year. May be repeated for a maximum of 6 credits toward graduation.

Digital Media (DGM)

DGM 1061
Digital Cinema Editing I 3
Introduces the interface, tools, techniques, and operations of a variety of Non-Linear Editing (NLE) software programs. Introduces standard editing concepts and practices necessary for the creation and completion of Digital Cinema projects made for various distribution channels. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 1062
Animation for the Internet 2
Introduces the interface, tool set, tweening techniques, and operations of an animation software package for online use. Requires creation of an interactive project with sound, video, and motion. Introduces basic scripting. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 1063
Image Editing 2
Introduces students to the interface, fundamental set of tools, techniques and operations of Photoshop. Requires creation and modification of digital images. Software fee of $15 applies. Lab access fee of $45 applies.

DGM 1110
Digital Media Essentials I 4
Beginning course designed to give students an in-depth introduction and well-grounded understanding of the digital media way of thinking, opportunities in the field, various tools, and introduction to development techniques. Topics include: audience assessment, digital imaging, compression algorithms, ethical dilemmas, message design through text, audio, images, animation, and digital video. May be delivered online. Software fee of $15 applies. Lab access fee of $45 applies.

DGM 1500
Intro to Digital Cinema 1
Offers an overview of the Digital Cinema major and industry. Teaches students the expectations and timetables required of them as they progress through the major. Develops a broad understanding of the various aspects of the filmmaking process and how training for these various aspects is conducted at UVU. Emphasizes industry standards of safety and professionalism. Should be taken in the first semester of classes in the program. Lab access fee of $45 applies.

DGM 1510
Film Production Analysis 3
Film Production Analysis is a foundation class for those interested in the digital media and motion picture business. Analyzes the various technologies and production techniques that make up motion picture communication. Involves viewing a motion picture each week of class and analyzing how the producer and director incorporated production and structural techniques to produce a compelling story. Covers the eight sequence structural elements of motion picture storytelling, how each crew member of the production team contributes to the overall impact, how scripting is used to direct the team to create a strong cinematic effect, and how the three act sequence structure guides the entire team through the pre-production, production and post-production process. Software fee of $15 applies. Course fee of $18 for software and plug-ins applies. Lab access fee of $45 applies.

DGM 1520
Digital Cinema Production I 3
Introduces professional video production techniques used for non-narrative digital cinema projects. Covers production processes such as working with clients, storytelling, camera techniques, basic lighting techniques, production management and basic non-linear editing techniques. Requires participation in a high-quality semester project that will take a non-narrative project through the entire pre-production, production and post-production process. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 1645
Mixed Reality Essentials 2
Introduces virtual reality using browser technology, mobile apps, head mounted displays and other emerging platforms.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGM 210R</td>
<td>Special Topics in Digital Media</td>
<td>1-4</td>
<td></td>
<td>Designed for students interested in specific digital media tools and concepts. Includes relevant and changing topics and tools used in production. Emphasizes hands-on experience along with lectures and demonstrations. This class may be taken for a total of nine credits, but curriculum may vary from one semester to another. Software fee of $15 applies. Lab access fee of $45 for computers applies.</td>
</tr>
<tr>
<td>DGM 2110</td>
<td>Digital Cinema Production II</td>
<td>3</td>
<td>DGM 1520</td>
<td>Presents professional digital cinema production techniques used in narrative filmmaking. Addresses problem-solving issues related to pre-production, production and post-production. Serves as a Production Assistant Certification course recognized by the Utah Film Commission. Course fee of $10 for equipment applies. Software fee of $15 applies. Lab access fee of $45 for computers applies.</td>
</tr>
<tr>
<td>DGM 2130</td>
<td>Digital Audio Essentials</td>
<td>3</td>
<td>MAT 1010</td>
<td>Reviews basic sound principles, cable types, microphone types, and basic techniques of use. Teaches recording of basic sounds and musical instruments into a Digital Audio Workstation. Introduces multi-track audio, editing, EQing, mixing, and mastering a 3-minute piece with voice and music. Includes a final project consisting of a multi-track music project designed for use in film, commercial radio, or other multimedia applications. Software fee of $15 applies. Lab access fee of $45 for computers applies.</td>
</tr>
<tr>
<td>DGM 2140</td>
<td>Electronics for Media</td>
<td>3</td>
<td></td>
<td>Covers connectors and cable wiring standards and soldering techniques used in this field. Emphasizes electronic equipment and circuits used with electrical safety in media. Includes basic DC/AC theory such as voltage, current, resistance, power dissipation, batteries, and magnetism. Introduces the basic construction and theory of operation of circuits used in media containing electronic components, resistors, capacitors, inductors, transformers, diodes, transistors, electron tubes, operational amplifiers, and linear ICs. Designed for Digital Media students. Software fee of $15 applies. Lab access fee of $45 for computers applies.</td>
</tr>
<tr>
<td>DGM 220R</td>
<td>Special Topics in Digital Design</td>
<td>1-4</td>
<td></td>
<td>Designed for students interested in specific authoring tools and concepts used in digital media processes. Includes relevant and changing topics and tools used in digital authoring. Emphasizes hands-on experience along with lectures and demonstrations. Curriculum may vary from one semester to another. May be repeated for a maximum of nine credits toward graduation. Course fee of $10 for materials applies. Software fee of $15 applies. Lab access fee of $45 for computers applies.</td>
</tr>
<tr>
<td>DGM 2245</td>
<td>Mixed Reality Experiences I</td>
<td>3</td>
<td>DGM 1645</td>
<td>Introduces students to the technology for photographing locations for Mixed Reality experiences. Covers multiple ways to photograph, stitch, augment, and publish completed experiences to multiple platforms.</td>
</tr>
<tr>
<td>DGM 2271</td>
<td>Digital Media Design I</td>
<td>3</td>
<td>DWDD 1600</td>
<td>Introduces students to the underlying design and development principles that create favorable circumstances for user-centered digital media experiences. Establish the development techniques and processes required for Web and mobile apps, which may include native OS and Web Apps as well as interactive digital publication Apps. Further introduces topics such as responsive design, use of grids and layout patterns according to platform, as well as underlying development considerations such as content inventory and Information Design. Offers students a greater appreciation for good design and the basic skills necessary to produce world-class media experiences. Software fee of $15 applies. Lab access fee of $45 for computers applies.</td>
</tr>
<tr>
<td>DGM 230R</td>
<td>Special Topics in Digital Graphics</td>
<td>1-4</td>
<td></td>
<td>Designed for students interested in specific graphic tools and concepts currently used in digital media production. Includes relevant and changing topics and tools. Emphasizes hands-on experience along with lectures and demonstrations. This class may be taken for a total of nine credits, but curriculum may vary from one semester to another. Course fee of $10 for materials applies. Software fee of $15 applies. Lab access fee of $45 for computers applies.</td>
</tr>
<tr>
<td>DGM 2340</td>
<td>Output and Color for Digital Cinema I</td>
<td>3</td>
<td>DGM 1061</td>
<td>Introduces digital workflow management of digital still and cinema camera assets. Addresses codecs, asset backup, management, transcoding, preparation of assets for the NLE workflow and final asset output for various digital distribution channels. Introduces color correction and color grading techniques, principles and concepts in a variety of professional software platforms. Software fee of $15 applies. Lab access fee of $45 for computers applies.</td>
</tr>
<tr>
<td>DGM 240R</td>
<td>Special Topics in Digital Audio</td>
<td>1-4</td>
<td>DGM 1110</td>
<td>Designed for students interested in specific audio tools and concepts currently used in digital audio production. Includes relevant and changing topics and tools. Emphasizes hands-on experience along with lectures and demonstrations. Curriculum may vary from one semester to another. May be repeated for a maximum of 9 credits toward graduation. Software fee of $15 applies. Lab access fee of $45 for computers applies.</td>
</tr>
<tr>
<td>DGM 2410</td>
<td>Core Recording Principles</td>
<td>3</td>
<td>DGM 2130</td>
<td>Teaches mic choice and placement, acoustic positioning, in-line signal processing, level matching, impedance matching, phase error elimination, pre-mixing and recorded stems, DAWs. Pro-Tools intermediate skills, project budgeting, and artist and client relations. Software fee of $15 applies. Lab access fee of $45 for computers applies.</td>
</tr>
</tbody>
</table>
DGM 2430  
Core Mixing Principles  
3  
* Prerequisite(s): DGM 2410

Teaches the science and art of audio mixing, centering on a broad range of musical and media post-production material. Covers initial mix plan, signal flow, and fix, fit and feature skills for all signal processors, including equalization, compression, limiting, delay, reverberation, doubling, phase, flange, chorus, other modulation effects, characteristics of algorithms (digital, solid state, transformers, rectifiers, tube, electro-optical, convolution). Also, teaches mix room acoustics, treatments and workarounds. Lab access fee of $45 applies.

DGM 2440  
Sound for Film and Television  
3  
* Prerequisite(s): DGM 2130

Teaches the basics of gathering sound for use in film and video productions. Covers proper boom miking and wireless mic techniques, and acoustics preparation to record dialogue and sound effects on location and on sound stages. Examines the processes utilized in editing audio of multimedia productions, including the balancing of artistic relationships, mixing and mastering of music, sound effects tracks and Foley. Offers practical experience in audio-only productions as well as audio-video relationships. Culminates in a digital cinema mixing session. Primarily a lab class, may couple with another video class to gather the sound for a cohesive project. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 2460  
Radio Production  
3

Teaches the history of radio, and the structure of typical radio stations, from management to programming and sales, and production and promotion. Covers method of producing radio promos, radio shows, commercials and news segments, as well as features and interviews. Examines the use of Digital Audio Workstations to produce several radio segments of the student's choosing. Includes lectures, demonstrations, and guest lecturers from radio stations in the community. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 2481  
Digital Audio Restoration  
3  
* Prerequisite(s): DGM 2130

Teaches the value and use of various tools to restore, preserve, and archive audio from a variety of sources, including vinyl records, tapes, film soundtracks, etc. Additional topics include removal of ambient noise (fans, AC, etc) from class film projects, impulsive noise (clicks and pops), periodic noise (hum and buzz), and random noise (spectral subtraction of ambient noise). In addition, some attention will be given to the subject of audio forensics, or restoring audio for intelligence or law enforcement applications. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 2490  
Digital Audio Workstation Training I  
3  
* Prerequisite(s): DGM 2130

Teaches proficiency in the use of a Digital Audio Workstation at the beginning level. Implements the first half of AVID Corporation's "ProTools User Level" certification, and successful completion of this course, together with its follow-on course, DGM 2491, will earn students their AVID ProTools certification at the "User" level. Lab access fee of $45 applies.

DGM 2491  
Digital Audio Workstation Training II  
3  
* Prerequisite(s): DGM 2130, DGM 2490

Teaches proficiency in the use of a Digital Audio Workstation at the intermediate level. Implements the second half of AVID Corporation's "ProTools User Level" certification, and successful completion of this course, together with its preceding course, DGM 2490, will earn students their AVID ProTools certification at the "User" level. Lab access fee of $45 applies.

DGM 2492  
Digital Audio Restoration II  
3  
* Prerequisite(s): DGM 2130

Focuses on traditional three-act structure and character-driven storytelling. Introduces dramatic and persuasive writing for filmed media content including short narrative films and documentaries. Applies cinematic storytelling approaches to emerging technologies such as interactive media, gaming, and virtual reality. Lab access fee of $45 applies.

DGM 2510  
Visual Effects for Digital Cinema I  
3  
* Prerequisite(s): DGM 1061

Introduces a variety of professional Visual Effects software used in conjunction with NLE (Non-Linear Editing) software in current industry use. Establishes a foundation of understanding of cinematic post-production workflows utilized by professional visual effects houses. Lab access fee of $45 applies.

DGM 2540  
Cinematography I  
3  
* Prerequisite(s) or Corequisite(s): DGM 1520

Focuses on traditional three-act structure and character-driven storytelling. Introduces dramatic and persuasive writing for filmed media content including short narrative films and documentaries. Applies cinematic storytelling approaches to emerging technologies such as interactive media, gaming, and virtual reality. Lab access fee of $45 applies.
Course Descriptions

DGM 260R
Special Topics in Animation and Game Development
1 to 4
Designed for students interested in specific animation tools and concepts currently used in digital animation production. Includes relevant and changing topics and tools. Emphasizes hands-on experience along with lectures and demonstrations. Curriculum may vary from one semester to another. May be repeated for a maximum of 9 credits toward graduation. Lab access fee of $45 for computers applies. Software fee of $15 applies. Course fee of $12 for equipment applies.

DGM 2661
Visualization for Digital Cinema-Pre-Directing
3
* Prerequisite(s): DGM 1510
Introduces concepts of visualizing filmed media content during the pre-production process from storyboarding and shot design to production design. Focuses on the role of the director to communicate lighting, character movement, camera movement, camera angles and framing to key motion picture production departments to enhance and support cinematic story. Lab access fee of $45 applies.

DGM 270R
Special Topics in Web Design and Development
1 to 4
Designed for students interested in specific web design tools and concepts currently used in multimedia creation. Includes relevant and changing topics and tools used in multimedia. Emphasizes hands-on experience along with lectures and demonstrations. Completers should be able to use the web design tools to create a typical multimedia project. Curriculum may vary from one semester to another. May be repeated for a maximum of 9 credits toward graduation. Course fee of $10 for equipment applies. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 281R
Internship
1 to 8
* Prerequisite(s): Departmental Approval
For Digital Media majors only. Provides a transition from school to work where learned theory is applied to actual practice through a meaningful on-the-job experience. Includes student, employer and coordinator evaluations, on-site work visits, and written assignments. Completers should obtain experience in establishing and accomplishing individualized work objectives that improve work performance. Internship is intended for entry level DGM students who are working at that level. Credit is determined by the number of hours a student works during the semester and completion of individually set goals. May be repeated for a maximum of 16 credits towards graduation. May be graded credit/no credit.

DGM 296R
Seminar
1 to 3
Provides short courses, workshops, and special programs in information management or current administrative topics. Curriculum may vary from one semester to another. May be repeated for a maximum of nine credits.

DGM 302R
Digital Cinema Production Lecture Series-CineSkype
1
* Prerequisite(s): (DGM 1520 or CINE 2150 or THEA 1023) and University Advanced Standing
Presents a series of feature-length films and the opportunity to discuss the challenges that went into their creation with the individual filmmaker(s). Introduces participants to directors, screenwriters, producers, and editors currently working in the industry. May be repeated for a maximum of 3 credits toward graduation. (Note: Some films screened may be considered controversial and carry an "R" rating.)

DGM 3061
Professional NLE Certification
3
* Prerequisite(s): DGM 1061 and University Advanced Standing
Provides guidance and materials allowing participants to certify in Non-Linear Editing software on various platforms. Focuses on certification on the User-level and Pro-level of Avid Media Composer. Extensively covers technical editing consideration including workflows, media management, color, sound, output, and scripting. Lab access fee of $45 applies.

DGM 3110
Corporate Issues in Digital Media WE
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
Covers business and legal issues in multimedia. Reviews good business practices for the multimedia industry. Studies universal marketing and sales principles and mastery, as well as e-commerce fundamentals. Includes copyright laws and procedures, obtaining permissions, creating and using contracts, protecting corporate assets, standards, security and privacy issues, and other legal issues regarding multimedia communication. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 312G
Digital Media for Intercultural Communication
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
Explores issues, concepts, and practices for making digital media accessible to people from diverse cultures and people with disabilities. Covers design considerations and techniques for the Web and other digital technologies. Presents methods for understanding and comparing different cultures and ways of approaching and enhancing intercultural interactions. Addresses accessibility standards, guidelines, and laws important for digital media developers to know and implement. Lab access fee of $45 for computers applies. Software fee of $15 applies. Course fee of $10 for equipment applies.

DGM 320R
Advanced Topics in Digital Media Design
1 to 4
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
Intended for advanced students with an interest in digital design and authoring. Includes relevant and changing topics and tools. Emphasizes hands-on experience along with lectures and demonstrations. Curriculum may vary from one semester to another. May be repeated for a maximum of 9 credits toward graduation. Lab access fee of $45 for computers applies. Software fee of $15 applies. Course fee of $10 for equipment applies.

DGM 321R
Advanced Interaction Design Practicum
1
* Prerequisite(s): DWDD 1430, DWDD 2410
Provides opportunities to lead and mentor a small team. Instructs in the design and production of a fully-featured digital media project, including concept, design, content creation and acquisition, testing, revision, mastering, and publication with hands on guidance. May be repeated for a maximum of 3 credits toward graduation.

DGM 3220
Digital Media Project Management
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
Teaches the foundational management principles that contribute to both the quality and profitability of digital media products. Introduces technical project management skills to help with budgeting and scheduling as well as critical soft skills, such as how to manage product design, make good decisions, communicate effectively, and build productive work relationships. Also, teaches about different types of project documents that enable and support effective, successful projects. Software fee of $15 applies. Lab access fee of $45 for computers applies.
DGM 3261
Mixed Reality Experiences II
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Explores the use of technology for creating Virtual Reality, Augmented Reality, and Extended Reality workflows. Covers how to develop Mixed Reality content for digital screens and headsets. Addresses the use of Mixed Reality environments in real world applications to remotely tour college campuses, museums, shops, sports venues, plan events at locations; show real estate, influence travel to vacation getaways; and create historical documentation. Preparers students for Mixed Reality Studio work. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3290
Developing Digital Media for Instruction and Training
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Teaches the lifestyle of training and development in a business setting. Uses the Instructional System Design (ISD) process, which includes identifying performance deficiencies and appropriate interventions, developing objectives, selecting appropriate learning technologies, developing course content, selecting effective instructional aids, delivering training, and evaluating training effectiveness. Reviews basic educational principles in teaching adult learners and managing classroom dynamics. Examines legal issues, cross-cultural preparation, and workforce diversity as they relate to training and development. Provides hands-on training experiences. Completers should be prepared to apply basic principles to training and development opportunities. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3300
Digital Photography and Compositing II
3
* Prerequisite(s): DGM 2320 and University Advanced Standing

Builds on skills acquired in Digital Photography and Imaging I. Uses photo imaging tools like Photoshop, Light Table, and Aperture in the creation and manipulation of digital images for use in a broad range of output specific formats. Teaches advanced image manipulation, and compositing and asset management to deliver finished digital image deliverables for such things as the web, DVD media, print, billboard, and wrap advertising media. Lab access fee of $45 for computers applies.

DGM 340R
Advanced Topics in Digital Audio
1 to 4
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Intended for advanced students with an interest in digital audio. Includes relevant and changing topics and tools. Emphasizes hands-on experience along with lectures and demonstrations. Curriculum may vary from one semester to another. May be repeated for a maximum of 9 credits toward graduation. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3410
Audio Engineering for the Studio I
3
* Prerequisite(s): DGM 3410, Portfolio Review Acceptance, and University Advanced Standing

Reviews basic sound principles (standing waves, studio acoustics, psycho-acoustics), microphone types and techniques of use. Covers theory and application of mixers, signal processors, and effects. Outlines proper construction and grounding of a recording studio. Introduces one or more digital audio workstations, which will be used to record a band or classical project. Requires the completion of a mixdown of a multi-track project. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3420
Studio Recording II
3
* Prerequisite(s): DGM 3410, Portfolio Review Acceptance, and University Advanced Standing

Reviews principles of good audio engineering covered in the introductory class, but in greater depth, including, cable types, microphone types, mixers, and techniques of use. Emphasis will be on mixing techniques for each individual instrument involved in the recording. Covers in-depth theory and application of mixers, signal processors, and effects. Addresses advanced stereo miking techniques and focuses on several key instruments, including piano and drums. Continues further in-depth topics on impedance matching, power requirements, and use of the decibel. Includes acoustic properties and sound transmission loss of common studio surface materials. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3430
Recording Studio Design Principles and Practices
3
* Prerequisite(s): DGM 3410, Portfolio Review Acceptance, and University Advanced Standing

Addresses many issues found in the design, construction and maintenance of a recording studio. Explores the physics, mathematics, electronics, and practical issues to properly design and build a successful recording studio. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3440
Sound for Games
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing; Laptop capable of running the Unreal Developer's Kit and Unity.

Teaches sound design and implementation for video games using both the Unreal Developer's Kit (Unreal Engine) and the Unity Game Engine. Includes visual and text-based scripting, signal flow, resource allocation and preservation, priority, layering, mastering for end-format, computer-based, console-based, and mobile-targeted development, and whole-project planning and execution. Software fee of $15 applies. Lab access fee of $45 for computers applies.
Course Descriptions

DGM 3460
Live Sound Reinforcement
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Teaches fundamental sound concepts: propagation, absorption, reflection, transmission, frequency response, effective manipulation of the decibel in calculations of loudness, power, and voltages. Covers intelligent use of microphone patterns, and loudspeaker and monitor placement. Investigates indoor sound vs. outdoor sound. Teaches proper cabling and connections, speaker crossovers, and theory of bi-amplification. Covers mixer diagrams and basic electronics. Incorporates practical experience acquired in giving technical support to UVU theater, music department, or public relations functions. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3481
Advanced Audio Restoration and Forensics
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Covers advanced principles and practices for digitally restoring difficult audio specimens, and includes forensic audio restorative and reconstructive techniques important to historical, investigative, and criminological fields as well. Also covers, in more depth, the cylinder recording period at the turn of the century. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3490
Digital Audio Workstation Training III
3
* Prerequisite(s): Portfolio review acceptance; DGM 2490, DGM 2491, and University Advanced Standing

Teaches proficiency in the use of a Digital Audio Workstation at the advanced level. Is the UVU implementation of the first half of AVID Corporation's "ProTools Operator Level" certification, and successful completion of this course, together with its follow-on course, DGM 3491, will make AVID ProTools certification at the "Operator" level available. Lab access fee of $45 applies.

DGM 3491
Digital Audio Workstation Training IV
3
* Prerequisite(s): Portfolio review acceptance, DGM 3490, and University Advanced Standing

Teaches proficiency in the use of a Digital Audio Workstation at the expert level. Currently, this is the UVU implementation of the second half of AVID Corporation's "ProTools Operator Level" certification, and successful completion of this course, together with its preceding course, DGM 3490, will make AVID ProTools certification at the "Operator" level available. Lab access fee of $45 applies.

DGM 350R
Advanced Topics in Digital Motion Picture Production
1 to 4
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Includes relevant and changing topics and tools used in digital motion picture industry. Emphasizes hands-on experience. Uses digital cinema and production management and development tools to create a typical digital media project. Curriculum may vary from one semester to another. May be repeated for a maximum of 9 credits toward graduation. Course fee of $10 for equipment applies. Software fee of $15 applies.

DGM 351R
Digital Broadcasting
3
* Prerequisite(s): DGM 2110, Portfolio Review Acceptance, and University Advanced Standing

Teaches planning, management and execution of live video productions integrating multiple cameras. Teaches the roles of the broadcast production team. Studies digital standards for broadcast equipment. Includes multiple 10 hour hands-on broadcast production labs. May be repeated for a maximum of 12 credits toward graduation. Course fee of $10 for equipment applies. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3520
Digital Cinema Production III
3
* Prerequisite(s): DGM 2110 and University Advanced Standing

Teaches skills to produce a micro-budget film. Introduces practical production techniques including paperwork for the Screen Actors Guild and for standard distribution deliverable requirements. Involves the completion of various finished short films both in groups and as individuals. Course fee of $10 for equipment applies. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3530
Digital Cinema Production Management
3
* Prerequisite(s): (Portfolio review acceptance or consent of instructor) and University Advanced Standing

Teaches the foundational principles which contribute to both quality and profitability in digital cinema projects that range from micro to mega budgets. Reviews team dynamics such as the relationship between producer and other production team members. Introduces industry standard budgeting and scheduling software tools, which can be used as management tools to guide multiple projects. Focuses on video/film workflow, from development and budgeting to pre-production, production and post-production. Requires the submission of an industry standard production book at the end of the semester. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3540
Cinematography II
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

A "hands-on" class that covers the role of the Director of Photography (DP) and Gaffer in drama-based broadcast television and digital cinematography. Teaches continuity of lighting, visual story telling, implied script subtext though light quality and color, continuity in direction, use of lenses and shot blocking for fixed and moving camera. Covers advanced grip and lighting equipment use and setups. Covers working with a producer, director, production designer, set decorator, boom operator and editor and on-set protocol. Software fee of $15 applies. Lab access fee of $45 for computers applies. Course fee of $46 for equipment applies.

DGM 3545
Advanced Editing for Mixed Reality Content
3
* Prerequisite(s): DGM 2545 and University Advanced Standing

Provides advanced training and practice in editing in multiple platforms and use of Mixed Reality content (including virtual and augmented reality, etc.). Explores new and emerging technologies for stitching, editing, combining visual-image with immersive sound, and delivery in multiple formats. Lab access fee of $45 applies.

DGM 3550
Producing I
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Examines the process of motion picture development and distribution with focus on the role of the producer in identifying, evaluating, developing, financing and securing distribution. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3560
Digital Cinema Editing II
3
* Prerequisite(s): DGM 1061, Portfolio Review Acceptance, and University Advanced Standing

Develops an understanding of how editing can shape cinematic storytelling using content from a variety of media and in various styles. Provides further practice in hands-on application on a variety of professional Non-Linear Editing platforms. Course fee of $13 for software and plug-ins applies. Software fee of $15 applies. Lab access fee of $45 for computers applies.
DGM 3570
Storytelling for Digital Media II WE
3
* Prerequisite(s): DGM 2570 or THEA 2742, Portfolio Review Acceptance and University Advanced Standing

Teaches advanced writing for cinema, television and emerging media. Includes writing assignments each week that will be read and analyzed according to the structure and execution of a goal. Discusses a specific scriptwriting subject each week such as finding the idea, researching, outlining and rewriting. Course fee of $13 for software and plug-ins applies. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3580
Digital Cinema Directing Workshop I
3
* Prerequisite(s): DGM 1510, DGM 1520, DGM 2110, Portfolio Review Acceptance and University Advanced Standing

Offers an advanced workshop format class structure. Utilizes project-based opportunities to apply and hone skills in digital cinema direction, editing scripts, casting, rehearsing and performing a scene. Includes polishing concept for shooting, then shooting and editing for presentation and critique. Course fee of $13 for software and plug-ins applies. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3590
Documentary I
3
* Prerequisite(s): (DGM 1061, DGM 1510, DGM 1520, portfolio review acceptance or instructor approval) and University Advanced Standing

Presents intermediate viewing and discussion of selected documentaries and instruction in various production skills necessary to create video documentaries. Explores the diversity of documentary styles and approaches including interview, archival, observational, etc. Focuses on character driven stories using traditional three act structures. Requires the completion of various exercises and analysis. Offers students the opportunity to practice generating traffic to a real web page and practice using analytical tools to evaluate their results. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 360R
Advanced Topics in Animation and Games
1 to 4
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Intended for advanced students with an interest in digital animation. Includes relevant and changing topics and tools. Emphasizes hands-on experience along with lectures and demonstrations. Curriculum may vary from one semester to another. May be repeated for a maximum of 9 credits toward graduation. Course fee of $13 for software and plug-ins applies. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3621
Hard Surface Modeling
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Teaches theories, tools, and principles of current industry modeling trends, specifically for video games and short animated films. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 370R
Advanced Topics in Web Design and Development
1 to 4
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Intended for advanced students with an interest in Internet authoring. Includes relevant and changing topics and tools. Emphasizes hands-on experience along with lectures and demonstrations. Curriculum may vary from one semester to another. May be repeated for a maximum of 9 credits toward graduation. Course fee of $10 for equipment applies. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3750
Media Analytics
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Provides students access to all the leading and most effective traffic techniques, ranging from organic search traffic and all aspects of SEO, through paid traffic of all kinds, and on to free, direct traffic methods. Covers all the concepts, techniques, and tools for web and mobile traffic analysis. Offers students the opportunity to practice generating traffic to a real web page and practice using analytical tools to evaluate their results. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 3760
Web Languages II
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Covers server-side web development and database interaction. Offers the skills and knowledge necessary to produce web sites in a professional environment. Covers current technology and design standards for websites that are database driven using current languages and platforms. Demonstrates how database interaction can enhance a multimedia website. Includes lectures, demonstrations, and weekly projects. May be delivered hybrid. Software fee of $15 applies. Course fee of $19 for software and plug-ins applies. Lab access fee of $45 for computers applies.

DGM 3780
Web Tools and Frameworks II
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Participants learn advanced techniques for delivering exceptional Flash based Internet applications. Teaches advanced scripting fundamentals, how to deliver content through server-side database connectivity, and engaging the audience through highly interactive experiences. Software fee of $15 applies. Course fee of $19 for software and plug-ins applies. Lab access fee of $45 for computers applies.

DGM 4000
Writing for Digital Audio WE
3
* Prerequisite(s): ENGL 2010, Portfolio Review Acceptance, and University Advanced Standing

Teaches the role of the written word in the digital audio arena, and helps students build competency in areas of expository, technical, persuasive, analytical, and research writing.

DGM 4261
Mixed Reality Studio
3
* Prerequisite(s): DGM 3261, Portfolio Review Acceptance, and University Advanced Standing

Applies knowledge and skills from previous mixed reality courses to assemble and publish highly interactive mixed reality experiences to multiple platforms. Represents the culmination of previous mixed reality courses in which projects will be hands-on practical application of technologies preparing students for senior capstone projects. Lab access fee of $45 applies.

DGM 4310
Senior Capstone I
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

For senior Digital Media students. Provides a capstone experience working in digital media. Develops individual real world projects in consultation with a faculty advisor. Encourages team work. Course fee of $10 for equipment applies. Software fee of $15 applies. Lab access fee of $45 for computers applies.
Course Descriptions

DGM 4410
Senior Capstone II
3
* Prerequisite(s): DGM 4310, Portfolio Review Acceptance, and University Advanced Standing

Conclusion of DGM 4310. Concludes the capstone experience for digital media students. Addresses post production issues such as testing, packaging, and documentation. Offers the opportunity to present projects to students, faculty, sponsors, and potential employers or clients. Course fee of $10 for equipment applies. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 4420
Applied Digital Media Technology
3
* Prerequisite(s): University Advanced Standing

For educators and general public interested in technology integration. Examines the ever-expanding array of options available to educators, business personnel and government agencies for creating and distributing rich media based materials. Explores what new technologies and creative practices are available and how to implement them into their present workflow. Focuses on getting the most out of Digital Media technology. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 4430
Audio Mastering
3
* Prerequisite(s): DGM 3420, Portfolio Review Acceptance, and University Advanced Standing

Deals with the final step in any audio production--Mastering. Covers the art of final EQ and Compression. Explores the issues of bit depth, sampling rates, dither, jitter, EQ techniques, and Dynamic Range manipulation (expanders and compressors). Looks into analog and digital signal processors, including reverb, and the final step of putting an album together with a brief discussion on vinyl pre-mastering. Teaches the use no fewer than 15 different compressors, both analog and digital for comparative listening tests. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 4450R
Story Editing for Digital Media
3
* Prerequisite(s): Cinema Portfolio Review Acceptance OR Instructor Approval, and University Advanced Standing
* Prerequisite(s) or Corequisite(s): DGM 2570 or THEA 2742

Teaches necessary skills for working with writers and producers preparing scripts for production through various media technologies. Uses Daniel Methodology to analyze stories in all stages from early concept to production scripts, identify strengths, diagnose weaknesses, and find possible solutions to strengthen the scripts. Teaches consulting techniques for working with writers and producers to communicate clearly and in a way that encourages and empowers them to suit their storytelling plan to the appropriate technologies. May be repeated for a maximum of 6 credits toward graduation. Lab access fee of $45 applies.

DGM 4510
Visual Effects for Digital Cinema II
3
* Prerequisite(s): DGM 2510 and University Advanced Standing

Provides an advanced practicum in a variety of professional Visual Effects software used in conjunction with NLE (Non-Linear Editing) software in current industry use. Further develops on the foundation of understanding of cinematic post-production workflows utilized by professional visual effects houses. Overviews a broad survey of types of visual effects in use today and the evolution of various programs and their shifting capabilities. Lab access fee of $45 applies.

DGM 4511
Film Production Analysis II
3
* Prerequisite(s): (DGM 1510 or instructor approval) and University Advanced Standing

Immerses participants in the theory and practice of effective storytelling through digital media. Features films and Daniel Methodology analysis as a foundation, then branches into applying Daniel Methodology to other media, including television series, documentaries, animation, gaming, interactive design and virtual reality. Prepares students for the rigorous requirements of the digital media industry in key creative professional roles, including writing, directing, producing and editing. Lab access fee of $45 applies.

DGM 4510R
Special Topics-Cinematography Masterworks
3
* Prerequisite(s): DGM 1510, DGM 1520, DGM 2540, and University Advanced Standing

Surveys selected cinematographers and their works. Looks at each cinematographer's films in chronological order from their earliest to more recent and analyzes their progression throughout their career. Evaluates individual technique and style in depth, breaking down films, scene by scene. Lab access fee of $45 applies.

DGM 454R
Cinematography III
3
* Prerequisite(s): DGM 3540 and University Advanced Standing

Offers an advanced workshop format class structure. Utilizes project-based opportunities to apply and hone advanced professional skills in composition, lighting and camera movement. May be repeated for a maximum of 9 credits toward graduation. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 4550
Producing II
3
* Prerequisite(s): DGM 3550

Implements the advanced process of motion picture development and distribution with focus on the role of the producer in identifying, evaluating, developing, financing and securing distribution. Lab access fee of $45 applies.

DGM 4560
Output and Color for Digital Cinema II
3
* Prerequisite(s): DGM 1061, DGM 2340, Portfolio Review Acceptance or instructor approval, and University Advanced Standing


DGM 456R
Digital Cinema Editing III
3
* Prerequisite(s): DGM 3560, Portfolio Review Acceptance, and University Advanced Standing

Presents an advanced practicum in Digital Cinema editing and craft. Prepares students for employment as professional editors and assistant editors in a variety of work environments on a variety of types of media. May be repeated for a maximum of 9 credits toward graduation. Lab access fee of $45 applies.
Course Descriptions

DGM 457R
Storytelling for Digital Media III
3
* Prerequisite(s): DGM 1510 and (DGM 2570 or THEA 2742), University Advanced Standing
* Prerequisite(s) or Corequisite(s): DGM 450R
Focuses on advanced writing for longform media projects including feature narrative films, documentary projects, episodic television series, experimental new media, interactive games, etc. Introduces participants to the process, discipline and format necessary to outline, write and refine a character-driven media script that will ultimately have a running-time of greater than forty-five minutes. May be repeated for a maximum of 9 credits toward graduation. Lab access fee of $45 applies.

DGM 458R
Digital Cinema Directing Workshop II
3
* Prerequisite(s): DGM 3580 and University Advanced Standing
Offers a professional level workshop format class structure for students interested in feature film and television direction, as well as other narrative screen-based content. Focuses include approaches to evaluating story and screenplays, directing actors, staging and blocking scenes, and approaches to visual/cinematic storytelling. May be repeated for a maximum of 9 credits toward graduation. Lab access fee of $45 applies.

DGM 459R
Documentary II
3
* Prerequisite(s): DGM 1520, DGM 3590, and University Advanced Standing
Presents advanced viewing and discussion of selected documentaries and instruction in various production skills necessary to create video documentaries. Explores the diversity of documentary styles and approaches including interview, archival, observational, etc. Requires the completion of various exercises from conceptualization through postproduction, culminating in the production of professional level documentary project. May be repeated for a maximum of 9 credits toward graduation. Lab access fee of $45 applies.

DGM 4610
Designing Technology based Training
3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
Provides shadowing opportunities in an educational or business setting where students can see basic principles of training and development in action and gain insights into training design, development, implementation, and evaluation. Uses the course map content from the DGM 3290 course to pre-author a technology-based training program, which includes creating a course navigation map (flowchart) to determine course sequence and navigational paths, designing storyboard frames with multimedia elements, and generating the navigation map and storyboards into an authoring tool. Completers should be prepared to apply shadowing experiences, discussion insights, and pre-authoring computer skills to future training opportunities. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 4620
Producing Technology based Training
3
* Prerequisite(s): DGM 4610 and University Advanced Standing
Builds on information taught in DGM 3290 and DGM 4610. Generates story boards from a computer design tool into an authoring tool. Teaches basic principles of building and editing frames with text and multimedia elements. Provides practice and feedback, remediation as needed. Addresses individual learner needs and evaluation of program effectiveness. Uses program objectives to evaluate final program product. Software fee of $15 applies. Lab access fee of $45 for computers applies.

DGM 481R
Internship
1 to 8
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
For Digital Media majors only. Provides a transition from school to-work where learned theory is applied to actual practice through a meaningful on-the-job experience. Includes student, employer and coordinator evaluations, on-site work visits, and written assignments. Completers should obtain experience in establishing and accomplishing individualized work objectives that improve work performance. Internship is intended for senior DGM students who are working at that level. Credit is determined by the number of hours a student works during the semester and completion of individually set goals. May be repeated for a maximum of 16 credits towards graduation. May be graded credit/no-credit.

DGM 497R
Independent Study
1 to 3
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing
For bachelor's degree students and other interested persons. Offers independent study as directed in reading or in individual projects; offered at the discretion and approval of the department chairperson. May be repeated for a maximum of 6 credits toward graduation.

Diesel Mechanics (DMT)

DMT 1000
Related Oxyacetylene and Arc Welding
3
Specially designed for diesel mechanics, other trade areas, and interested community members. For beginning students. Covers theory and practice of oxyacetylene and arc welding of mild steel. Includes identification of basic and filler metals and melting temperatures of various metals. Emphasis is placed on root penetration and fusion of welded materials. Completers should be able to weld in their professional area. Tool room fee of $19 for equipment applies.

DMT 1005
Basic Shop and Safety Skills
2

DMT 1110
Diesel Engine Overhaul
4
* Corequisite(s): DMT 111L
* Prerequisite(s) or Corequisite(s): DMT 1005
Introduces diesel engine operating principles, factors affecting performance, design variations, and identification of components. Focuses on disassembly and reassembly of diesel engines following industry standard overhaul procedures. Includes the identification, inspection, and measuring of parts to determine condition for reuse. Uses failed components to assist in teaching troubleshooting skills. Provides theory of engine tune-up processes on various engines used by industry. Software fee of $10 applies. Lab access fee of $15 for computers applies.
DMT 105
Course Lab fee of $19 for equipment applies. Course Lab fee of $22 for materials applies.

DMT 1120
Diesel Engine Operation Tune Up Lab
2
* Corequisite(s): DMT 1110
* Prerequisite(s) or Corequisite(s): DMT 1005

Provides hands-on experience in diesel engine operating principles, factors affecting performance, design variations, and identification of components. Includes disassembly and reassembly of diesel engines following industry standard overhaul procedures. Focuses the identification, inspection, and measuring of parts to determine condition for reuse. Utilizes failed components to assist in teaching troubleshooting skills. Tool room fee of $19 for equipment applies. Course Lab fee of $22 for materials applies.

DMT 112L
Diesel Engine Operation Tune Up Lab
2
* Corequisite(s): DMT 1120

Examines diesel engine components, controls, operating systems, and performance factors. Provides opportunity to perform hands on component replacement and tune-up adjustments. Provides the opportunity to run an engine under load in a dynamometer test cell. Troubleshoots common engine operating complaints, such as low power, smoke conditions, engine faults, etc. Tool room fee of $19 for equipment applies. Course Lab fee of $27 for materials applies.

DMT 1510
Electrical Systems I
4
* Prerequisite(s): AUT 1260 (or any MAT or MATH course 1000 or higher) with a C- or better
* Corequisite(s): DMT 151L

Teaches the definition of electricity: voltage, current, and resistance as well as the electrical rules of Ohm's law, Watt's law, Kirchhoff's circuit laws. Provides examples of the application of the above laws in both series and parallel circuits. Includes instruction on the proper use of DVOM's and their function in diagnosing and troubleshooting electrical circuitry on heavy trucks and equipment. Teaches electrical components and symbols. Teaches correct repair procedures for wiring, fuses, and connectors. Addresses starting and charging system operation and testing. Emphasizes all safety procedures practices. Software fee of $10 applies. Lab access fee of $15 for computers applies.

DMT 151L
Electrical Systems I Lab
2
* Prerequisite(s): DMT 1110

Provides hands-on experience using a DVOM on series and parallel circuits. Identifies electrical components and examines their functions. Describes testing batteries, starting systems, and charging systems. Identifies the correct repairs on these systems and when applicable. Provides practice in electrical safety and preventative maintenance. Covers basic electrical repair techniques. Tool room fee of $19 for equipment applies. Course Lab fee of $30 for materials applies.

DMT 1520
Electrical Systems II
2
* Corequisite(s): DMT 152L
* Prerequisite(s) or Corequisite(s): DMT 1510 and DMT 151L

Covers heavy and medium duty vehicle electrical systems including lighting, climate control, computer controls and accessories. Emphasizes DOT lighting regulations for vehicles and trailers. Introduces fundamentals of electrical circuitry and schematics. Examines the computer controls on modern vehicle electrical systems. Software fee of $10 applies. Lab access fee of $15 for computers applies.

DMT 152L
Electrical Systems Lab II
4
* Corequisite(s): DMT 1520
* Prerequisite(s) or Corequisite(s): DMT 1510 and DMT 151L

Focuses on lab work for the troubleshooting and repair of heavy/medium duty electrical systems and electronic engine management. Includes vehicle and trailer lighting, monitoring, and control systems. Emphasizes DOT safety regulations requirements. Tool room fee of $19 for equipment applies. Course Lab fee of $25 for materials applies.

DMT 2230
Heating Ventilation Air Conditioning and Refrigeration Theory
2
* Corequisite(s): DMT 223L
* Prerequisite(s) or Corequisite(s): DMT 1510 and DMT 151L

Teaches the principles of heat transfer using refrigerant as the medium. Emphasizes the identification and operation of individual system components. Discusses the different types of refrigerants used in the mobile industry as well as recovery, recycling, storage, handling, and disposal. Also covers the theory and operation of auxiliary power units used on highway trucks. Software fee of $10 applies. Course fee of $10 for materials applies. Lab access fee of $15 for computers applies.

DMT 223L
Heating Ventilation Air Conditioning and Refrigeration Lab
1
* Corequisite(s): DMT 2230
* Prerequisite(s) or Corequisite(s): DMT 1510 and DMT 151L

Teaches correct use of modern HVACR testing and repair equipment. Provides hands-on opportunity to troubleshoot and service modern HVACR systems. Examines and practices EPA approved handling of current refrigerants used in current vehicles and equipment. Provides hands-on opportunity to locate, identify, test, service, and troubleshoot different types of mobile AC systems using EPA approved equipment & procedures. Also provides hands-on experience with auxiliary power units used on highway trucks. Tool room fee of $19 for equipment applies. Course Lab fee of $19 for materials applies.
DMT 2310
Fluid Power I Theory
4
* Prerequisite(s): AUT 1260 (or any MATH MAT course 1000 or higher) with a C- or better
* Corequisite(s): DMT 231L

Outlines the fundamental principles of fluid power (hydraulics). Emphasizes the relationship between pressure, force, area, and resistance. Covers Bernoulli's principle in connection with hydraulic: flow, horsepower torque and the conservation of energy. Illustrates the application and operation of all of the essential components and valving found in a hydraulic system. Identifies types of circuit designs and schematic symbols. Software fee of $10 applies. Lab access fee of $15 for computers applies.

DMT 231L
Fluid Power I Lab
2
* Prerequisite(s): AUT 1260 (or any MATH MAT course 1000 or higher) with a C- or better
* Corequisite(s): DMT 2310

Provides practical lab experience for the identification, operation, and repair of basic hydraulic system components and circuits. Utilizes various lab equipment and machinery to highlight basic system designs and use of schematics. Emphasizes the safe and proper usage of hydraulic diagnostic equipment or tools necessary for component and system testing. Tool room fee of $19 for equipment applies. Course Lab fee of $17 for materials applies.

DMT 2320
Fluid Power II Theory
4
* Prerequisite(s) or Corequisite(s): DMT 2310, DMT 231L, DMT 232L

Covers the design and operation of variable displacement pumps and motors, emphasizing those that are load sensing and pressure compensating. Focuses on the electronic controls of fluid power systems including open and closed loop circuits. Analyzes corresponding electronic controls on hydraulic schematics. Presents the theory and operation of hydrostatic and automatic transmissions used with heavy equipment and medium/ heavy duty trucks. Emphasizes component operation, maintenance, repair, testing, and troubleshooting. Software fee of $10 applies. Lab access fee of $15 for computers applies.

DMT 232L
Fluid Power II Lab
2
* Corequisite(s): DMT 2320

Focuses on the use of hydraulic test equipment to diagnose and troubleshoot systems using electronic, proportional or load sensing components. Covers the testing and correct adjustment of load sensing/pressure compensated pumps. Provides for the disassembly, inspection, reassembly and testing of hydrostatic transmissions. Provides experience to build and troubleshoot electronically controlled hydraulic circuits, troubleshoot electronically controlled hydrostatic transmissions as well as Allison transmissions. Emphasizes the use of diagnostic tools and service manuals. Tool room fee of $19 for equipment applies.

DMT 2410
Chassis Theory
4
* Corequisite(s): DMT 241L

Provides theory on maintenance and repair of heavy duty chassis systems. Covers air brake systems, ABS systems, suspension systems, steering geometry, front end and tandem alignment, and frame maintenance. Emphasizes Department of Transportation highway safety requirements, and preventative maintenance. Software fee of $10 applies. Lab access fee of $15 for computers applies.

DMT 241L
Chassis Lab
2
* Corequisite(s): DMT 2410

Covers troubleshooting and repair skills for heavy and medium duty trucks for air brake systems and ABS brake systems. Discusses alignment fundamentals. Uses hands on exercises to develop these skills. Focuses on proper maintenance and adjustment to foundation brakes and wheel ends. Requires performance tasks on various suspension designs and frame maintenance. Tool room fee of $19 for equipment applies. Course Lab fee of $22 for materials applies.

DMT 2420
Power Train Theory
4
* Corequisite(s): DMT 242L

Provides theory in maintenance and repair of heavy duty power train systems. Teaches clutches, single and multiple counter shaft transmission, computer controlled transmissions, drive line geometry, differentials and Department of Transportation safety requirements. Emphasizes troubleshooting, highway safety, and preventative maintenance. Software fee of $10 applies. Lab access fee of $15 for computers applies.

DMT 242L
Power Train Lab
2
* Corequisite(s): DMT 2420

Provides hands-on experience in maintenance and repair of heavy duty power train systems. Applies tasks for clutches, single and multiple counter shaft transmission, computer controlled transmissions, drive line geometry, differentials and DOT safety requirements. Emphasizes troubleshooting, highway safety, and preventative maintenance. Tool room fee of $19 for equipment applies. Course Lab fee of $22 for materials applies.

DMT 2530
Electronic Engine Management
2
* Prerequisite(s): DMT 1510, DMT 151L, DMT 1520, and DMT 152L
* Corequisite(s): DMT 253L Recommended

Covers electronic fuel systems: parts, component ID, usage and operation. Includes instruction for electronic governors, set up, operation and diagnosis. Analyses advanced electronic fuel injectors and injection systems. Includes examination of sensor types, function and testing. Teaches the operation and component identification of current emission equipment as well as the present EPA emission standards. Lab access fee of $15 for computers applies.

DMT 253L
Electronic Engine Management Lab
1
* Prerequisite(s): DMT 1510, DMT 151L, DMT 1520, and DMT 152L
* Corequisite(s): DMT 2530

Covers the identification, location and function of all electronically controlled fuel system components, including sensors, governors, injectors, pumps, valving, and conductors. Explains the usage of computer based diagnostic equipment for troubleshooting and electronic engine management. Covers the identification, location and function of all emission system related components. Focuses on the proper maintenance and service of these systems.

DMT 281R
Cooperative Work Experience
1 to 8
* Corequisite(s): DMT 285R

Designed for Diesel Mechanics Technology majors. Provides paid, on-the-job work experience in the student's major. Work experience, the correlated class, and enrollment are coordinated by the Cooperative Coordinator. Includes student, employer, and coordinator evaluations, on-site work visits, written assignments, and oral presentations. Provides experience in writing and completing individualized work objectives that improve present work performance. May be repeated for a maximum of 16 credits toward graduation. May be graded credit/no credit.
**Course Descriptions**

**DMT 285R**  
Cooperative Correlated Class  
1  
* Corequisite(s): DMT 281R

Designed for Diesel Mechanics Technology majors. Identifies on-the-job problems through in-class discussion and study. Includes the study of identifying and maximizing service opportunities. Students register for this class with approval of the Cooperative Coordinator. Includes lecture, guest speakers, video tapes, role playing, case analysis, oral presentations, and written assignments. Completers should be better able to perform in their field of work or study.

**DMT 291R**  
Special Projects  
1 to 5  
* Prerequisite(s): Advisor and Instructor Approval

For students majoring in diesel technology. Involves special projects. Allows independent projects that are designed to enhance beginning or advanced abilities. Repeatable for as many times as desired.

**DMT 298R**  
Technical Workshop  
1 to 4

For Diesel Technology students and other interested community members. Tailored to a specific topic, product, component, or vehicle related to the diesel service industry. Its purpose is to update technician training by addressing changes in products or equipment. Topics will vary. May be presented by an OEM, a dealer representative, or faculty member. Repeatable.

**DMT 299R**  
VICA  
1

Designed for Diesel Mechanics Technology majors. Supports and facilitates the goals and objectives of Vocational Industrial Clubs of America (VICA). VICA is a pre-professional student organization that develops social awareness, civic, recreational, and social activities. Students may participate in local, state, and national contests.

**Digital Media Web Design Dev (DWDD)**

**DWDD 1400**  
Digital Design Essentials  
3

Teaches fundamentals of digital layout for web development and how to properly create engaging interfaces for digital media. Addresses technical challenges for digital mediums to deliver effective digital experiences. Introduces basic content creation and sprint thinking independent of software platforms. Lab access fee of $45 applies.

**DWDD 1410**  
Interaction Design Essentials  
3  
* Prerequisite(s): DWDD 1400

Implements creative development layouts into interactive designs. Focuses on integration with industry development tools. Introduces basic overview of product development, pattern libraries, layout and development standards using interaction and industry practices for digital experiences. Lab access fee of $45 applies.

**DWDD 1420**  
Communicating Digital Design WE  
3  
* Prerequisite(s): DWDD 1400

Focuses on the development of highly creative and visual design documentation; how to communicate both written and visual information in meaningful ways in a highly technical field. Covers why communicating a particular design challenge is just as important as the design itself, and why writing, layout, and visual clarity is critical to mastering UX and Digital Product Design. Sets the foundation for all documentation assignments in the Web Design and Development degree. Lab access fee of $45 applies.

**DWDD 1430**  
Principles of Digital Design  
3  
* Prerequisite(s): DWDD 1400

Teaches principles of visual design, how to properly create engaging interfaces for digital media, and practice good integration with industry development tools. Addresses the complexity of designing rich media experiences around digital devices ranging from computer screens to personal information devices. Software fee of $15 applies. Lab access fee of $45 for computers applies.

**DWDD 1600**  
Web Essentials  
3

Provides the fundamentals necessary to plan, design, develop, deploy, and critique a web site which includes images, sound, video, forms, and separates content from presentation. Focuses on the fundamentals of web programming languages. Examines various ways to build an accessible web page. Software fee of $15 applies. Lab access fee of $45 for computers applies.

**DWDD 1720**  
Scripting for Internet Technologies  
3  
* Prerequisite(s): DWDD 1600

Introduces the fundamentals of computer programming and problem solving using the current industry standard scripting languages. Emphasizes the fundamentals of structured and object-oriented programming, syntax, semantics, control structures, arrays, file I/O, testing/debugging, implementation, and the construction of graphical user interfaces. Applies these concepts to manipulate digital images, sound, movies, text, and web pages that are heavily used as digital media. Laptop Required. Software fee of $15 applies. Lab access fee of $45 for computers applies.

**DWDD 2410**  
Interaction Design  
3  
* Prerequisite(s): DWDD 1410

Focuses on strategies and principles used in digital media development to enhance the user experience. Teaches how to understand stakeholder goals, identify and specify user needs and requirements through user research and design documentation, engage in interactions with target audiences through interviews, observation, and discussion, as well as create and test prototypes. Deals with solving real-world problems faced by consumers using products in the market. Software fee of $15 applies. Lab access fee of $45 for computers applies.

**DWDD 241R**  
Interaction Design Practicum  
1  
* Prerequisite(s): DWDD 2410

Instructs in the design and production of a fully-featured digital media project, including concept, design, content creation and acquisition, testing, revision, mastering, and publication with hands-on guidance. May be repeated for a maximum of 3 credits toward graduation. Lab access fee of $45 applies.

**DWDD 2420**  
Media Formats and Outputs  
3  
* Prerequisite(s): DWDD 1400

Focuses on the digital workflow and management of still images, video, audio and digital effects media assets. Addresses use of codecs and format types for use in mobile media use scenarios. Introduces the proper handling of assets in various development platforms and user experience design best practices when using assets on touch-based devices. Software fee of $15 applies. Lab access fee of $45 for computers applies.
**Course Descriptions**

**DWDD 2510**  
Interactive Media Production  
3  * Prerequisite(s): DWDD 1410  
Focusses on the use of digital visual effects in mobile publishing environments. Includes multi-layer effects in known mobile layouts, creation of digital mattes and parallax for unique visual user engagement, as well as integration techniques according to development platforms. Software fee of $15 applies. Lab access fee of $45 for computers applies.

**DWDD 2520**  
Digital Product Experiences I  
3  * Prerequisite(s): DWDD 1410  
Focusses on the development of engaging mobile apps for distribution on a myriad of devices. Teaches the fundamental building blocks of publishing digital media experiences of all types and may include interactive guide, catalogs, brochures, training manuals, kiosks, and exhibits. Covers the development of apps for touchscreen ‘native’ content and feature real-time updates. Laptop & Device Required. Software fee of $15 applies. Lab access fee of $45 for computers applies.

**DWDD 2530**  
Immersive Experiences I  
3  * Prerequisite(s): DWDD 1410  
Focusses on the application of media technologies that possess the ability to create rich immersive experiences for distribution on optical media such as CD, DVD-ROM, and over the Internet. Introduces participants to a variety of authoring systems and development techniques when creating Digital Media experiences. Laptop Required. Software fee of $15 applies. Course fee of $18 applies. Lab access fee of $45 for computers applies.

**DWDD 2610**  
Principles of Web Languages  
3  * Prerequisite(s): DWDD 1720  
Focusses on solving various Web design and coding problems using current Internet technologies. Emphasizes solving unique coding problems using HTML, CSS, and jQuery that arise when implementing a Web design. Software fee of $15 applies. Course fee of $18 for software and plug-ins applies. Lab access fee of $45 for computers applies.

**DWDD 2620**  
Web Tools and Frameworks I  
3  * Prerequisite(s): DWDD 1600  
Introduces the necessary frameworks and tools needed to build structured, maintainable, and scalable web pages common in the industry. Incorporates project-based learning to help students gain solid web development experience through hands-on programming and problem solving a real world project. Software fee of $15 applies. Course fee of $18 for software and plug-ins applies. Lab access fee of $45 for computers applies.

**DWDD 2720**  
Web Languages I  
3  * Prerequisite(s): DWDD 1720  
Examines client-side languages that allow viewers to interact with the content of Web pages. Extensively uses methods for creating highly interactive web sites without the use of authoring tools. Teaches how to make the static content within a typical webpage more dynamic, interesting, and most importantly, useful. Culminates with a final project to design and create materials for use in a well-designed interactive web site. Software fee of $15 applies. Course fee of $18 for software and plug-ins applies. Lab access fee of $45 for computers applies.

**DWDD 301R**  
Digital Lecture Series  
1  * Prerequisite(s): University Advanced Standing  
Uses guest speakers who lecture on current topics in digital media. May be repeated for a maximum of 3 credits toward graduation.

**DWDD 3410**  
Interaction Design Colloquium  
3  * Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing  
Provides advanced students with unique and current industry perspectives on interaction design through seminar discussions, workshops, and industry on-site experiences. Software fee of $15 applies. Lab access fee of $45 for computers applies.

**DWDD 3430**  
Adaptive Media Experiences  
3  * Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing  
Investigates methods to capture, create, use, and adapt digital content in appropriate and meaningful ways. Examines distribution channels for media such as desktop, mobile, smart appliances, and automobile markets. Laptop Required. Software fee of $15 applies. Lab access fee of $45 for computers applies.

**DWDD 3520**  
Digital Product Experiences II  
3  * Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing  
Focusses on the development of engaging mobile apps for distribution on a myriad of devices. Covers advanced development of publishing digital media experiences of all types and includes techniques for coding immersive experiences beyond standard practices. Prepares students to develop for touchscreen ‘native’ content and feature real-time updates. Laptop and Device Required. Software fee of $16 applies. Lab access fee of $45 for computers applies.

**DWDD 3530**  
Immersive Experiences II  
3  * Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing  
Focusses on advanced application of media technologies and design paradigms when creating rich immersive experiences for distribution as a net-based desktop or mobile application. Uses unique and emerging technologies that are critical for digital media majors to understand. Laptop required. Lab access fee of $45 for computers applies. Software fee of $15 applies. Course fee of $19 for software and plug-ins applies.

**DWDD 3620**  
Web Tools and Frameworks II  
3  * Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing  
Investigates advanced techniques for delivering exceptional Internet applications using existing frameworks. Teaches advanced scripting fundamentals, how to deliver content through server-side database connectivity, and engaging the audience through highly interactive experiences.

**DWDD 3720**  
Web Languages II  
3  * Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing  
Covers server-side web development and database interaction. Offers the skills and knowledge necessary to produce web sites in a professional environment. Covers current technology and design standards for websites that are database driven using current languages and platforms. Demonstrates how database interaction can enhance a multimedia website. Includes lectures, demonstrations, and weekly projects.
Course Descriptions

**DWDD 3770**  
Rich Internet Application Development I  
3  
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Describes various Rich Internet Application development technologies. Investigates RIA development and delivery technologies such as JavaScript frameworks, API usage, and developer productivity tools with a special emphasis on the integration of Digital Media into Internet applications. Teaches the design and development workflow for interactive, media-rich applications delivered via networked browser, computer desktops, and mobile devices. Software fee of $15 applies. Course fee of $19 for software and plug-ins applies. Lab access fee of $45 for computers applies.

**DWDD 3780**  
Rich Internet Application Development II  
3  
* Prerequisite(s): DWDD 3770, Portfolio Review Acceptance, and University Advanced Standing

Describes various Rich Internet Application development technologies with a focus on utilizing server-side resources. Investigates a wide variety of RIA technologies including cloud services, API development, and dynamic data stores. Teaches how to design and develop RIAs using a variety of tools, code frameworks, and delivery clients. Requires creation of interactive and useful media-rich web experiences for end users. Software fee of $15 applies. Lab access fee of $45 for computers applies.

**DWDD 4240**  
Experience Design Process  
3  
* Prerequisite(s): DWDD 2410 and University Advanced Standing

Focuses on advanced strategies and principles used in digital product development to enhance the user experience. Focuses on strategy and research methodologies for production-level digital product design through advanced user research, and engages in product interactions with target audiences.

**DWDD 4430**  
Adaptive Media II  
3  
* Prerequisite(s): DWDD 3430 and University Advanced Standing

Focuses on the advanced application of media technologies that possess the ability to create adaptable content media experiences. Focuses primarily on the ability to curate and realign rich content assets through Internet-based Apps. Teaches principles of distribution that can be applied to desktop, mobile, and advancing technologies in the home or automobile markets with a specific focus on dynamic retrieval and adaptation of content. Laptop Initiative Requirement. Software fee of $15 applies. Lab access fee of $45 for computers applies.

**DWDD 4520**  
Digital Product Design Studio  
3  
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Covers advanced development techniques of Product Design fused with User Experience Design / User Interface Design. Highlights problem solving and effective communication. Focuses heavily on how digital designers can influence the user experience, and participatory outcomes of such experiences, through well-planned interactions, digital layout, and adaptation to the physical hardware. Software fee of $15 applies. Lab access fee of $45 for computers applies.

**DWDD 4560**  
Designing Voice Experiences  
3  
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Teaches fundamentals of Voice Experience design and development for verbal digital interfaces. Addresses technical challenges for verbal and conversational digital experiences in real world applications. Introduces basic content creation and verbal logic theory for varying artificial intelligence platforms. Lab access fee of $45 applies.

**DWDD 4630**  
Web Content Management  
3  
* Prerequisite(s): Portfolio Review Acceptance and University Advanced Standing

Instructs students on how to create a site that in content rich, dynamic, and meaningful to site visitors. Teaches participants how to effectively plan, develop, and arrange content through the use of information design principles, content management systems, and analysis tools. Culminates with students building a live site for a real-world client where students must solve real design, development, and delivery issues. Software fee of $15 applies. Course fee of $19 for software and plug-ins applies. Lab access fee of $45 for computers applies.

**DWDD 490R**  
Senior Capstone  
3  
* Prerequisite(s): Portfolio Review Acceptance and Senior Class Standing

Provides a capstone experience working in digital media. Develops individual real-world projects in consultation with a faculty advisor. May be repeated for a maximum of 6 credits toward graduation.

**Electrical Comp Engineering (ECE)**

**ECE 1000**  
Introduction to Electrical and Computer Engineering  
3  
* Prerequisite(s): MATH 1060 or higher

Introduces engineering-problem-solving techniques, design processes, modeling and analysis of simple electrical and computer circuits using MATLAB and LabVIEW software packages. Emphasizes engineering design procedures by incorporating group projects and presentations. Lab access fee of $45 applies.

**ECE 1020**  
Computer Engineering Problem Solving with MATLAB and LabVIEW  
1  
* Prerequisite(s): MATH 1050 or higher

Introduces the field of Computer Engineering through programming in the MATLAB and LabVIEW languages. Teaches the design of various components of a prototype communication system while learning about the following aspects of MATLAB: scripts and function files, math functions, commands for array construction and manipulation, string expressions, logic operators, control flow, and graphics. No prior knowledge of computer engineering is assumed. Software fee of $10 applies. Lab access fee of $45 for computers applies.

**ECE 2210**  
Fundamentals of Electric Circuit Analysis  
3  
* Prerequisite(s): MATH 1210, PHYS 2210

Explores fundamental electric circuit analysis techniques. Develops analysis techniques using Kirchoff's laws, Thévenin and Norton equivalents, superposition, and phasors. Covers transient and steady-state time-domain analysis, and frequency analysis. Lab access fee of $45 for computers applies.

**ECE 2215**  
Fundamentals of Electric Circuit Analysis Lab  
1  
* Prerequisite(s): MATH 1210, PHYS 2210

Covers fundamental electric circuit analysis techniques. Develops analysis techniques using Kirchoff's laws, Thévenin and Norton equivalents, superposition, and phasors. Covers transient and steady-state time-domain analysis, and frequency analysis. Software fee of $10 applies. Lab access fee of $45 for computers applies.
Course Descriptions

ECE 2250
Circuit Theory
3
* Prerequisite(s): MATH 1210, PHYS 2220, ECE 1000
Develops linear circuit theory and its application in the analysis and design of RLC active circuits. Covers DC, AC, and transient analysis utilizing node and mesh analysis. Lab access fee of $45 for computers applies.

ECE 2255
Circuit Theory Lab
1
* Prerequisite(s): MATH 1210, PHYS 2220, ECE 1000
* Corequisite(s): ECE 2250
Laboratory for ECE 2250 develops linear circuit theory and its application in the analysis and design of RLC active circuits. Covers DC, AC, and transient analysis utilizing node and mesh analysis. Introduces the use of CAD tools. Software fee of $10 applies. Lab access fee of $45 for computers applies.

ECE 2700
Digital Design I
3
* Prerequisite(s): MATH 1050 or MATH 1055
* Corequisite(s): ECE 2705
Studies the design and application of combinational and sequential logic circuits with discrete and programmable logic devices. Lab access fee of $45 for computers applies.

ECE 2705
Digital Design I Lab
1
* Prerequisite(s): MATH 1050 or MATH 1055
* Corequisite(s): ECE 2700
Designed to accompany ECE 2700. Covers design of digital systems with discrete and programmable logic devices. Includes the use of CAD tools for system design and verification. Software fee of $10 applies. Lab access fee of $45 for computers applies.

ECE 2750
Engineering Analysis
3
* Prerequisite(s): MATH 1220 and ECE 1000
Studies Linear systems, abstract vector spaces, matrices through eigenvalues and eigenvectors, solution of ordinary differential equations, Laplace transforms, first order systems, and complex numbers. Software fee of $10 applies. Lab access fee of $45 for computers applies.

ECE 3250
Energy Conversion
3
* Prerequisite(s): ECE 2250, (Formal Acceptance into the Electrical Engineering Program, or Departmental Approval), and University Advanced Standing
Presents fundamental concepts of energy conversion including torque and power in singly/ doubly excited electromagnetic systems, single and three-phase transformers, single and three-phase induction motors including speed control, three-phase synchronous generators and DC machines. Lab access fee of $45 applies.

ECE 3350
Control Systems
3
* Prerequisite(s): ECE 2750, ECE 3770, University Advanced Standing, and (Formal Acceptance into the Electrical Engineering Program, or Departmental Approval)
Introduces the theory and practice of control systems engineering. Covers modeling in the frequency and time domains, analog and discrete transfer function models, reduction of multiple subsystems, system response specifications, control system characteristics, root locus analysis and design, frequency response analysis and design. Emphasizes computer-aided analysis. Lab access fee of $45 applies.

ECE 3450
Electromagnetics and Transmission Lines
3
* Prerequisite(s): PHYS 2220, ECE 2250, University Advanced Standing, and (Formal Acceptance into the Electrical Engineering Program, or Departmental Approval)
Introduces the fundamentals of electromagnetic field theory and application: vector analysis, electric and magnetic fields, potential theory, dielectric and magnetic material properties, conductance, capacitance, and inductance, Maxwell’s equations and circuit concepts. Explains transmission lines as a bridge to understanding electromagnetic field theory. Covers basic principles of radiation and propagation in waveguides and antennas. Lab access fee of $45 applies.

ECE 3710
Applied Probability and Statistics for Engineers and Scientists
3
* Prerequisite(s): MATH 1210 and University Advanced Standing
Explores probability and statistical theory with an emphasis on engineering and computer science applications. Covers descriptive statistics, discrete and continuous random variables, probability distributions, hypothesis testing, expectation, estimation, ANOVA testing, and regression analysis. Includes computer analysis of data and simulation. Software fee of $10 applies. Lab access fee of $45 for computers applies.

ECE 3730
Embedded Systems I
3
* Prerequisite(s): ECE 2700, ECE 2250, (Formal Acceptance into the Electrical or Computer Engineering Program, or Departmental Approval), and University Advanced Standing
Presents an introduction to the basic building-blocks and the underlying scientific principles of embedded systems. Covers both the hardware and software aspects of embedded processor architectures and assembly language programming. Develops the theory and technology necessary for the interconnection of devices and systems to microcontrollers by using hardware and software examples and students’ projects. Software fee of $10 applies. Lab access fee of $45 for computers applies.

ECE 3740
Digital Design II
3
* Prerequisite(s): ECE 2700, (Formal Acceptance into the Electrical Engineering Program or Computer Engineering program, or Departmental Approval), and University Advanced Standing
Covers the design and verification of digital systems. Emphasizes hierarchical design principles and the use of programmable logic devices (PLDs). Utilizes modern CAD tools and design languages (VERILOG). Lab access fee of $45 for computers applies.

ECE 3760
Electronic Systems
3
* Prerequisite(s):ECE 2250, PHYS 2220, University Advanced Standing, and (Formal Acceptance into the Electrical Engineering Program or Computer Engineering program, or Departmental Approval)
* Corequisite(s): ECE 3765
Introduces semiconductor theory and the fundamentals of diode and transistor operation. Covers the use of discrete and integrated active devices in linear amplifier and switching applications. Software fee of $10 applies. Lab access fee of $45 for computers applies.

ECE 3765
Electronic Systems Lab
1
* Prerequisite(s): ECE 2255, PHYS 2220, and University Advanced Standing
* Corequisite(s): ECE 3760
Designed to accompany ECE 3760. Covers electronic analog circuit design, simulation, construction, debugging and measurement of circuit performance quantities using advanced instrumentation techniques. Software fee of $10 applies. Lab access fee of $45 for computers applies.
ECE 3770  
Signals and Systems  
3  
* Prerequisite(s): ECE 2750, (Formal Acceptance into the Electrical Engineering Program or Computer Engineering program, or Departmental Approval), and University Advanced Standing

Examines the time and frequency domain analysis of continuous-time systems subjected to periodic and non-periodic input signals. Introduces signal and transform theory and the application of Laplace and Fourier transforms. Software fee of $10 applies. Lab access fee of $45 for computers applies.

ECE 3780  
Communication Systems and Circuits  
3  
* Prerequisite(s): ECE 3770, ECE 3710, (Formal Acceptance into the Electrical Engineering Program, or Departmental Approval), and University Advanced Standing

Introduces the fundamentals of electronic communication systems and circuits. Covers pulse code modulation, line coding, information rate, equalization, amplitude modulation, angle modulation, and noise in communication systems. Lab access fee of $45 applies.

ECE 3785  
Communication Systems and Circuits Lab  
1  
* Prerequisite(s): ECE 3770, ECE 3710, and University Advanced Standing  
* Corequisite(s): ECE 3780

Covers hands on experiments related to course work, in the area of communication systems and circuits. Includes digital and analog modulation for the baseband and bandpass communications. Provides appropriate wireless communication techniques for modern circuits and applications using mini projects. Lab access fee of $45 applies.

ECE 4250  
Power Systems Engineering  
3  
* Prerequisite(s): ECE 3250, (Formal Acceptance into the Electrical Engineering Program, or Departmental Approval), and University Advanced Standing

Introduces power system analysis and design with the aid of a personal computer. Emphasizes AC power generation, distribution and usage. Covers single-phase and 3-phase power, motors, generators, power distribution and the grid, generation plants, smart grids, and power flow control. Lab access fee of $45 applies.

ECE 4260  
Smart Power Grids  
3  
* Prerequisite(s): ECE 2250 and University Advanced Standing

Introduces fundamentals and system analysis of power grids, smart grids and microgrids with emphasis on distributed renewable power generations, distribution, usage and energy storage. Covers single-phase, three-phase and per-unit power calculations; solar and wind generators, and load flow calculation control.

ECE 4700  
Computer Architecture for Engineering Applications  
3  
* Prerequisite(s): ECE 3740 and University Advanced Standing

Uses register transfer languages and simulation tools to describe and simulate computer operation; central processing unit organization, microprogramming, input/output, pipelining, virtual memory concepts, VLIW, superscalar out of order, ILP, and memory system architectures. Lab access fee of $45 applies.

ECE 4720  
Computer Architecture for Engineering Applications  
3  
* Prerequisite(s): ECE 3740 and University Advanced Standing

Introduces the theory of digital signal processing and its application to practical problems. Covers spectrum representation, Nyquist sampling, z-transform, discrete Fourier transform, discrete-time Fourier transform, FIR (Finite Impulse Response) and IIR (Infinite Impulse Response) digital filter design. Software fee of $10 applies. Lab access fee of $45 for computers applies.

ECE 4750  
Digital Signal Processing Lab  
1  
* Prerequisite(s): ECE 3770 and University Advanced Standing

Performs software and hardware experiments illustrating the basic principles and techniques of digital signal processing. Teaches programming of real-time signal processing algorithms on a concrete DSP chip, and Accelerate the DSP code on the GPU. Lab access fee of $45 applies.
ECE 4780
Wireless and Mobile Communications
3
* Prerequisite(s): ECE 3780 and University Advanced Standing

Covers the fundamentals of modern digital wireless communication systems and their applications to modern wireless communication technologies such as 5G NR, MIMO, IEEE 802.11ax (Wi-Fi 6), and broadband satellite communication. Includes digital modulation schemes and their performance analysis in the presence of noise, intersymbol interference (ISI), equalizers, synchronization, multipath fading, spread spectrum, OFDM, multiple access techniques, error control codes, and information theory. Introduces both software and hardware designs. Lab access fee of $45 applies.

ECE 4800
Computer Engineering Senior Design Project
3
* Prerequisite(s): ECE 3740 and University Advanced Standing

Serves as a project-oriented capstone course for computer engineering majors. Emphasizes major hardware and software design. Includes identification and completion of a suitable design project to be mutually selected by the faculty supervisor and student. Requires weekly written and oral presentations as well as a final written project report and an oral presentation. Requires completion of a program level assessment test. Software fee of $10 applies. Course fee of $27 for materials/testing applies. Lab access fee of $45 for computers applies.

ECE 481R
Electrical and Computer Engineering Internship
1 to 3
* Prerequisite(s): Admission to Computer Engineering program or Electrical Engineering program, Instructor Approval, and University Advanced Standing

Provides an opportunity to gain career-related experience while earning academic credit. Credit is determined by the number of hours a student works during the semester. May be Graded Credit/No Credit. May be repeated for a maximum of three credits toward graduation.

ECE 4850
Machine Learning
3
* Prerequisite(s): CS 1400, ECE 3710, and University Advanced Standing

Provides a broad introduction to machine learning (ML). Uses techniques such as probability and statistics, linear algebra, and optimization to learn from and make predictions on data without human intervention. Covers the concepts behind several machine learning modeling and algorithms to be prepared for conducting research and industrial application of machine learning.

ECE 4900
Electrical and Computer Engineering Capstone I WE
3
* Prerequisite(s): ECE 4730 and University Advanced Standing

Electrical and Computer Engineering Capstone I and Capstone II focus on team-oriented design and technical writing by incorporating group projects, oral presentations and written reports. Incorporates engineering standards and realistic constraints including economic, environmental, sustainability, manufacturability, ethical, social, political, health and safety. Emulates the problems encountered by engineers working in commercial, industrial, and governmental entities. Capstone I and Capstone II must be taken in consecutive semesters. Lab access fee of $45 applies.

ECE 490R
Advanced Current Topics in Computer Engineering
1 to 3
* Prerequisite(s): Department Approval and University Advanced Standing

Provides exposure to emerging technologies and topics of current interest in computer engineering. Varies each semester depending upon the state of technology. May be repeated for a maximum of 6 credits toward graduation without prior written department approval. Lab access fee of $45 applies.

ECE 491R
Independent Study
1 to 3
* Prerequisite(s): Prior written Department Chair approval and University Advanced Standing

Offers independent study as directed by a faculty advisor in reading, individual projects, etc. Varies each semester depending upon the state of technology. A maximum of 3 credit hours may be counted towards graduation without prior written Department approval. Lab access fee of $45 applies.

ECE 4950
Electrical and Computer Engineering Capstone II WE
3
* Prerequisite(s): ECE 4900 and University Advanced Standing

Electrical and Computer Engineering Capstone I and Capstone II focus on team-oriented design and technical writing by incorporating group projects, oral presentations and written reports. Capstone II meets one of two Writing Enriched courses required for graduation in Electrical Engineering and Computer Engineering. Capstone II incorporates engineering standards and realistic constraints including economic, environmental, sustainability, manufacturability, ethical, health and safety, social, and political. Emulates the problems encountered by engineers working in commercial, industrial, and governmental entities. Capstone I and Capstone II must be taken in consecutive semesters. Lab access fee of $45 applies.

Course Descriptions

Edu Child and Family Studies (ECFS)

ECFS 208R
Directed Readings
1 to 4

For second-year ECFS students. Includes readings with analysis and discussion of selected topics in child education and family relationships. Requires approval of the department for registration. May be taken for a maximum of four credits.

ECFS 2900
Independent Study
1 to 5
* Prerequisite(s): Approval of ECFS Department

Provides independent study through faculty-directed individual projects related to working with children and families. Possible areas of study include curriculum, behavior management, program administration, family studies, and case studies in applied theory.

ECFS 3320
Gender Perspectives in Education
3
* Prerequisite(s): University Advanced Standing

For educators, counselors, student teachers, those wanting to recertify, and other interested students. Explores gender issues that may affect the educational experience of girls and boys. Examines history, biases, myths, and stereotypes. Develops sensitivity to issues of gender through discovery learning. Assists participants to recognize cultural and individual issues as they pertain to gender.

ECFS 4720
Characteristics and Identification of Gifted Students
3
* Prerequisite(s): Permission of instructor and University Advanced Standing

Designed for senior teacher education students and in-service teachers. Reviews different conceptualizations of intelligence and giftedness and practices and instruments used for identification. Describes characteristics and cognitive, social and developmental needs of gifted students.

ECFS 4730
Teaching Gifted Students
3
* Prerequisite(s): ECFS 4720, Instructor Permission, and University Advanced Standing

For senior education students and in-service teachers in local schools. Describes the various settings in which gifted students are served. Reviews instructional strategies and assessment appropriate to teaching gifted students, and strategies for dealing with parents.
Economics (ECON)

ECON 1010 Economics as a Social Science 3
An introductory course which studies the operation of a mixed market system, including production, domestic and global trade, and labor-management economics. Includes business cycles and monetary and fiscal policies designed to modify those cycles. Canvas Course Mats $85/McGraw applies.

ECON 2010 Principles of Economics I 3
* Prerequisite(s): MATH 1050, MATH 1055, MATH 1090 or higher or appropriate test score
Teaches basic concepts and tools from the fields of Microeconomics and Macroeconomics and explains how consumers, producers and other economic agents make decisions, as well as the outcomes of their interactions. Provides the needed framework for business students to understand the role of macroeconomic policies in the US, including GDP measurement, inflation and unemployment. Uses lectures, class discussions, and a variety of in-class activities to promote engaged learning. Required for Finance and Economics majors. Lab access fee of $30 for computers applies. Canvas Course Mats $85/McGraw applies.

ECON 2020 Principles of Economics II 3
* Prerequisite(s): ECON 2010
Teaches basic concepts and tools from the fields of Microeconomics and Macroeconomics not covered in ECON 2010. Focuses on economic scenarios that depart from perfect competition, including market failures and imperfect competition. Analyzes the Keynesian framework and its applications to fiscal policy, as well as monetary theory and policy. Uses lectures, class discussions, and a variety of in-class activities to promote engaged learning. Required for Finance and Economics majors. Lab access fee of $30 for computers applies. Canvas Course Mats $85/McGraw applies.

ECON 3010 Intermediate Microeconomics 3
* Prerequisite(s): ECON 2020, MGMT 3345, and University Advanced Standing
Covers intermediate microeconomic theory for economics and finance majors planning on extending their economics training into econometrics, mathematical economics and other related courses. Reviews microeconomic theory and models to develop an understanding of, and ability to use, modern microeconomic theory, measurement, and policy.

ECON 3020 Managerial Economics 3
* Prerequisite(s): MGMT 2240 with a B- or better; ECON 2020; University Advanced Standing
Extends the discussion of the economic theory of markets, demand and supply, elasticity, and marginal analysis process to make more effective decisions. Emphasizes an applied approach using basic theoretical concepts. Discusses the concepts of production theory and cost analysis in the short and long run. Describes how to apply economic decision-making in various competitive markets, including perfect competition, monopoly, monopolistic competition, and oligopoly. Reviews elements of risk and uncertainty in a microeconomic framework. Canvas Course Mats $85/McGraw applies.

ECON 3030 Intermediate Macroeconomics 3
* Prerequisite(s): Matriculation into the Woodbury School of Business and University Advanced Standing
Extends discussion of models of income determination, economic growth theory, analysis of fiscal and monetary policy theory, international trade issues, and alternative views related to the impact of macro theory in the US and world economies. Prepares economics majors for other advanced economic theory and policy courses.

ECON 3040 Environmental Economics 3
* Prerequisite(s): Instructor Approval and University Advanced Standing
Introduces economic issues of ecological and environmental theory and policy. Identifies the economic tools appropriate for the analysis of ecological and environmental challenges for an inter-disciplinary group of engineering, science, social science, and natural resources management professionals. Presents the microeconomic concepts useful for reviewing these types of issues. Evaluates public policy issues related to environmental, ecological, and natural resource challenges.

ECON 305G International Economics 3
* Prerequisite(s): ECON 2010, ECON 2020, and University Advanced Standing
Covers theoretical and practical concepts of international trade and finance. Reviews empirical tests of basic international trade theories. Uses international trade and finance databases for the analysis of trade patterns, balance of payments, exchange rates and global capital markets. Includes coverage of cultural and intercultural relationships that exist within an economic context. Canvas Course Mats $100/Pearson applies.

ECON 3060 Money and Banking 3
* Prerequisite(s): ECON 2020 and University Advanced Standing
Covers the concept of money, its historical development, and its role in the economy. Covers the U.S. banking system with a focus on the Federal Reserve Bank. Examines the Federal Reserve Bank balance sheet and the different tools for conducting monetary policy. Provides the opportunity for students to collect data from the Federal Reserve Bank and test the relationships between money, banking, and macroeconomics theory.

ECON 3070 Behavioral Economics 3
* Prerequisite(s): ECON 2010 and University Advanced Standing
Provides an introduction to Behavioral Economics. Contrasts the assumptions of the neoclassical economic theories with theories based on psychology, sociology, and related disciplines. Reviews the leading models in heuristics and biases in decision making. Uses case studies for the understanding of real-world scenarios in economics and business.
Course Descriptions

ECON 3370
Economic Modeling and Data Analytics
3
* Prerequisite(s): MGMT 2240 with a B- or better; ECON 2020; University Advanced Standing

Covers at an intermediate level some of the most important quantitative tools used in Economics and Data Analytics. Explains how to build, solve and estimate theoretical models of real-world situations. Applies optimization techniques and machine learning methods to economic and business problems. Uses lectures, class discussions, and a variety of in-class activities to promote engaged learning.

ECON 3400
Health Economics
3
* Prerequisite(s): ECON 3370 and University Advanced Standing

Introduces healthcare economics and provides an overview of the structure and operations of health care systems in the United States. Introduces dynamic developments in the healthcare industry and changes in health policy. Reviews the roles of private and government insurance, physician, hospital, and patient relationships, the impacts of pharmaceutical providers, long-term care, and related issues. Includes the application of alternative economic models associated with healthcare provision and the identification of data required to measure and evaluate healthcare processes.

ECON 3470
Principles of Applied Econometrics
3
* Prerequisite(s): ECON 3370 and University Advanced Standing

Provides an opportunity to use mathematical and statistical skills in real-world applications of econometrics. Examines the foundations of econometrics through well-known examples. Develops analytical skills by using data inputs and working through a series of projects students might encounter in future professional experience. Lab access fee of $25 for computers applies.

ECON 3810
Labor Economics
3
* Prerequisite(s): Matriculation into the Woodbury School of Business and University Advanced Standing

Provides an analysis of the theory and practice of labor markets. Defines the factors that influence the demand and supply of labor in a modern economy. Develops the concepts for a theory of human capital. Reviews factors such as wage determination, occupational differences, problems of gender, labor turnover, discrimination, impacts of education and training, impacts of labor unions, immigration, changes in technology, and other related issues. Lab access fee of $25 for computers applies.

ECON 3820
Economic Development
3
* Prerequisite(s): ECON 2020, MGMT 2400, and University Advanced Standing

Describes economic development models. Reviews economic growth theories, poverty, inequality, the role of institutions, human capital, and structural transformation. Uses existing databases for the empirical analysis of economic development policies. Lab access fee of $25 for computers applies.

ECON 3830
History of Economic Thought
3
* Prerequisite(s): Matriculation into the Woodbury School of Business and University Advanced Standing

Traces the evolution of formal economic theory primarily beginning with Adam Smith, the first classical economic theorist. Studies other classical writers including Ricardo and Malthus as well as Marx’s criticisms. Studies neoclassical analysis through Marshall and the critiques of the Austrian school. Reviews the modern theorists including Keynes and the development of macroeconomics, the development of empirical and mathematical economic theories, monetarism, and other post-Keynesian analysis. Lab access fee of $25 for computers applies.

ECON 4010
Advanced Microeconomics
3
* Prerequisite(s): ECON 3010 and University Advanced Standing

Advanced course in microeconomics for economics majors. Addresses the issues related to modern economic theories of imperfect competition, the market of factors of production, cost analysis, the distribution of income, general equilibrium, and welfare economics.

ECON 4020
Advanced Macroeconomics
3
* Prerequisite(s): ECON 3030, MGMT 3345, and University Advanced Standing

Is an advanced course in macroeconomics for economics majors. Provides economics graduates an understanding of modern macroeconomics theory including traditional macro issues, models with incomplete nominal adjustment, inflation theory, dynamic inconsistency and recent theories of unemployment.

ECON 4040
Game Theory
3
* Prerequisite(s): ECON 4010, ECON 4320, and University Advanced Standing

Designed to give students the skills to assess economic and social issues where strategic interaction is relevant. Teaches students to condition their responses based on the reactions and behavior of other individuals rather than merely in response to outside constraints, which is the usual approach to optimization theory. Provides concepts, tools, and experience to deal with game theory situations.

ECON 4100
Analysis of Financial Institutions and Markets
3
* Prerequisite(s): Matriculation into the Woodbury School of Business and University Advanced Standing

Studies money, banking, and financial markets from an economics perspective. Examines the structure of interest rates and their influence in financial markets. Reviews financial instruments, financial intermediaries, banking institutions and the types of assets and liabilities common to those systems. Covers money supply and money demand within the central banking system.

ECON 4150
Public Finance
3
* Prerequisite(s): Matriculation into the Woodbury School of Business and University Advanced Standing

Designed as elective credit for Business Management and other bachelor of science degree majors. Develops knowledge, skills, and attitudes required for those employed in and analyzing the public sector. Describes the three levels within the public structure including respective purposes and functions, revenue generation alternatives, budgeting, deficit financing, public choice, income redistribution, public goods, and externalities. Lab access fee of $25 for computers applies. Canvas Course Mats $54/Norton applies.

ECON 4320
Mathematical Economics
3
* Prerequisite(s): ECON 3010, and University Advanced Standing

Discusses advanced concepts in economic modeling, the application of mathematical models in economic analysis, and advanced research methods in economics. Covers advanced mathematical applications in economics and finance for students interested in advanced econometric analysis and model building. Lab access fee of $25 for computers applies.
Course Descriptions

ECON 4400
Health Economics II
3
* Prerequisite(s): ECON 3370, ECON 3400, ECON 3470, and University Advanced Standing

Covers methods from microeconomics and data analytics to investigate different aspects of health care markets and institutions and economic epidemiology. Uses economic tools from several sub-disciplines and machine learning methods to estimate models of demand and supply of health care, disease transmission, vaccine adoption, and other health and epidemiology issues.

ECON 4500
US Economic Development and History
3
* Prerequisite(s): Matriculation in the Woodbury School of Business, University Advanced Standing

Provides an analysis of the economic development of the United States. Describes the factors that led to the development of colonies in the Americas and the causes of the Revolution and formation of a government. Describes the economic causes for western expansion, transportation development, and the rise of American capitalism. Reviews the shift from agrarian to industrial development, the economic development of big business and big government, the impact of depression, and the economics of world war and peace. Lab access fee of $25 for computers applies.

ECON 494R
Special Topics in Economics
3
* Prerequisite(s): Departmental approval and University Advanced Standing

Provides short courses, workshops, and special programs in economics and current business and public policy topics. May be repeated for a maximum of 6 credits toward graduation.

ECON 4960
Economics capstone research project
3
* Prerequisite(s): ECON 3470 and University Advanced Standing

Provides guidance for the capstone research project for the Bachelor's Degree in Applied Economics. Integrates all steps of the economic scientific method from designing a research project to using appropriate empirical tools and analyzing economic issues. Provides students the opportunity to work on real-world projects. Lab access fee of $25 for computers applies.

ECON 4970
Economic Research Design and Implementation
3
* Prerequisite(s): Matriculation into the Woodbury School of Business and University Advanced Standing

Defines the scientific approach to managerial decision-making and project management. Describes issues related to problem definition, model development, data collection, model implementation using the data, model validation, results analysis, and using the findings to implement changes to solve problems. Examines both quantitative and qualitative models and methods. Allows students to work on real-world projects through the Utah Community Research Group (Utah CRG) and its research partners.

ECON 6300
Managerial Economics
3
* Prerequisite(s): Acceptance in the MBA program

Applies concepts and theories, based on managerial economic to business problems. Analyzes cost theory, pricing, market structures, and forecasting.

ECON 6330
Econometrics
3
* Prerequisite(s): Acceptance in the MBA program

Provides graduate level introduction to applied regression tools, including simple and multivariate regression analysis; linear, nonlinear, and qualitative dependent variable models; distributed lags; seemingly unrelated regression, and model specification and validation tests.

Applied Behavior Analysis (EDAB)

EDAB 6010
ABA Concepts and Principles
3
* Prerequisite(s): Admission to Master of Education in Applied Behavioral Studies program or permission of the graduate program director

Provides students with a strong foundation in the basic concepts and principles of ABA, including the history and philosophical assumptions of behavior analysis and autism spectrum disorder. Graduate fee of $515 applies.

EDAB 6020
Ethics and Professional Competencies in Applied Behavioral Analysis
3
* Prerequisite(s): Admission to Master of Education in Applied Behavioral Studies program or permission of the graduate program director

Defines ethical responsibilities required in the field of applied behavior analysis. Introduces policy and practice related to informed consent, protection of confidentiality, selection of least intrusive and least restrictive behavior change procedures within the context of case methodology. Emphasizes legal issues and ethical decision making processes. Covers professional, disciplinary, and ethical standards for Board Certified Behavior Analyst certification in depth. Graduate fee of $515 applies.

EDAB 6030
Developing and Changing Behaviors
3
* Prerequisite(s): Admission to Master of Education in Applied Behavioral Studies program or permission of the graduate program director

Explains various behavioral assessments and intervention strategies. Focuses on single subject designs and procedures for measuring behavior, displaying data, and interpreting results. Examines ways to evaluate and analyze behavior change. Graduate fee of $515 applies.

EDAB 6040
Measurement in Single Subject Design
3
* Prerequisite(s): Admission to Master of Education in Applied Behavioral Studies program or permission of the graduate program director

Introduces methods for collection and interpretation of various types of data. Focuses on the importance of making data-driven decisions for behavior change procedures based on functional relationships. Graduate fee of $515 applies.

EDAB 6050
Functional Behavior Assessment and Treatment
3
* Prerequisite(s): Admission to the Master of Education in Applied Behavioral Studies program or permission of the graduate program director

Focuses on using methods and tools for selecting and defining target behaviors and for behavior measurement. Provides experience in methods to develop new behavior using imitation, modeling, shaping, and chaining and methods to decrease behaviors using extinction, differential reinforcement and antecedent interventions. Reviews and extends the study of functional behavior assessment, verbal behavior, generalization and maintenance of behavior change. Course fee of $515 applies.
EDAB 6060
Advanced Topics in Applied Behavior Analysis
3
* Prerequisite(s): Admission to Master of Education in Applied Behavioral Studies program or permission of the graduate program director

Focuses on advanced topics in behavior analysis, including current research, changes in relevant legislation, emerging areas of behavior analysis, measurement technology, school applications, teaching methodology, innovative interventions, and ethics. Graduate fee of $515 applies.

EDAB 6070
Training Supervision and Performance Monitoring in Applied Behavior Analysis
3
* Prerequisite(s): Admission to Master of Education in Applied Behavioral Studies program or permission of the graduate program director

Examines the training, supervision, and performance monitoring from an applied Behavior Analytic perspective. Provides students with a strong foundation in effective training as it applies to parents, staff, and supervisees. Develops competency in supervision of ABA interns. Provides an overview of systems-level analysis, including organizational assessment, quality assurance, performance, and outcome monitoring. Graduate fee of $515 applies.

EDAB 6080
Introduction to Practice in ABA
3
* Prerequisite(s): Admission to the Master of Education in Applied Behavior Analysis program.

Provides an introduction to applied practice in behavior analysis. Focuses on foundational knowledge to apply clinical skills to address problem behaviors of social importance and to teach pro-social, adaptive behaviors.

EDAB 6090
Advanced Applications in ABA
2
* Prerequisite(s): Admission to the Master of Education in Applied Behavior Analysis program.

Focuses on the application of advanced clinical skills to address problem behaviors of social importance. Teaches practices used to develop pro-social, adaptive behaviors. Examines best practices for addressing complex problems in applied settings.

EDAB 6100
Group Research Design in ABA
3
* Prerequisite(s): Admission to the Master of Education in Applied Behavior Analysis program.

Provides an introduction to group research design in the field of Applied Behavior Analysis (ABA). Examines the basic concepts and principles of group research designs. Addresses the history and contemporary application of these principles to research in autism spectrum disorder.

EDAB 689R
ABA Supervision Seminar
1
* Prerequisite(s): Admission to the Master of Education in Applied Behavior Analysis program.

Provides students with a comprehensive understanding of clinical practice in applied behavior analysis. Examines ways to apply clinical skills to the treatment selection and implementation process. Explores strategies to promote a client centered and culturally competent approach to clinical practice in applied behavior analysis.

School Counseling (EDCO)

EDCO 6010
Foundational Principles of School Counseling
3
* Prerequisite(s): Admission to Master Education School Counseling program.

Examines the foundational principles of school counseling and introduces students to the Utah School Counseling Model and the ASCA National Model. Provides students with the information and knowledge of how to implement a College and Career Readiness School Counseling Program.

EDCO 6020
Ethics and Professional Competencies of School Counseling
3
* Prerequisite(s): Acceptance into the SOE Master of Education in School Counseling.

Provides essential knowledge and skills as established by the Utah State Board of Education standards. Focuses on legislation impacting professional school counselors and the ASCA Code of Ethics.

EDCO 6030
Career Counseling
3
* Prerequisite(s): Acceptance into School of Education graduate program or approval of graduate program director

Introduces theories of career development and career decision-making models relating to educational and career development program planning, organization, implementation, administration, and evaluation. Covers the history of work and career in the U.S. in addition to contemporary influences and multicultural considerations.

EDCO 6040
Multicultural Counseling
3
* Prerequisite(s): Admission to the Master of Education in School Counseling program.

Examines implications of working with students with diverse cultural backgrounds. Exposes students to various cultures and the methods, values, and beliefs that organize family life and human development. Examines how the intersections of race, class, culture, gender, ethnicity, and sexuality shape and affect the lives of individuals and families. Explores intervention practices, social advocacy models, and resistance strategies.

EDCO 6050
Interventions in Schools
3
* Prerequisite(s): Acceptance into School of Education graduate program or approval of graduate program director

Introduces developmentally relevant counseling treatment or intervention plans. Includes development of measurable outcomes for students. Teaches evidence-based counseling strategies and techniques for prevention and intervention. Provides instruction on the referral process and community-based resources. Emphasizes suicide prevention models and strategies. Explores crisis intervention, trauma-informed, and community-based strategies, such as Psychological First Aid.

EDCO 6060
College and Career Readiness
3
* Prerequisite(s): Acceptance into School of Education graduate program or approval of graduate program director

Prepares future school counselors to help all students succeed in post-secondary training and future careers. Emphasizes current labor market demands and resources that can provide early and ongoing exposure to information necessary for students to make informed decisions regarding post-secondary education and improve their career literacy.

Course Descriptions
Course Descriptions

EDCO 6100 Research and Evaluation
3
* Prerequisite(s): Admission to the Master of Education in School Counseling program.

Introduces practitioner research in school counseling. Identifies methods for locating, reading, interpreting, and using credible research, and explores approaches to applying action research methods in school counseling programs to advance the counseling profession. Provides students the skills and competencies necessary to successfully conduct valid and reliable research and analyze and use data for completing data projects required by the Utah State Board of Education.

EDCO 6710 School Counseling Practicum
3
* Prerequisite(s): Admission to the Master of Education in School Counseling program.

Provides students with an opportunity to job shadow a school counselor at a local school for 100 hours and directly apply concepts and principles learned in coursework. Includes weekly reporting and reflection from practicum experiences to a group supervisor. Provides instructional content relating to the special topics in school counseling.

EDCO 689R School Counseling Internship
3
* Prerequisite(s): Admission to the Master of Education in School Counseling program.

Supports the student in completing the required 400-600 hour internship.

Edu Early Childhood Education (EDEC)

EDEC 1640 Childrens Music and Movement
2
Covers historical foundations of music for young children. Explores strategies for teaching music and movement. Explores music appreciation, creative and structured music, and transitions and movement activities for young children. Investigates music and movement curricula, academic content and learning environments. Course fee of $10 for materials applies.

EDEC 2300 Including Young Diverse Learners
2
* Prerequisite(s): PSY 1100; ACT (or equivalent) composite score of 21+, or completion of (ENGL 1010 or ENGH 1005 or higher) with a minimum grade of C-

Introduces the implications of diversity and exceptionality in young children. Emphasizes the impact of diversity in children's educational settings. Includes basic assessment strategies. Introduces teaching strategies to address children with special needs and/or from diverse populations. Emphasizes inclusive and adaptive strategies for supporting young children with exceptionalities. Covers partnerships, families, and communities. Includes 10 hours of field experiences.

EDEC 2500 Child Development Birth to Eight Years
3
* Prerequisite(s): PSY 1100; ACT (or equivalent) composite score of 21+, or (ENGL 1010 or ENGH 1005 or higher) with a minimum grade of C-

Covers developmental theories and milestones of a child's development. Emphasizes growth in all developmental domains. Focuses on supportive parental and care giver behaviors. Addresses the influence of out-of-home care. Examines the role of play when creating supportive environments. Investigates risk factors that impede optimal development. Includes 15 hours of structured observation, assessment, and interactions with young children.

EDEC 2600 Introduction to Early Childhood Education
2
* Prerequisite(s): ACT (or equivalent) composite score of 21+, or (ENGL 1010 or ENGH 1005 or higher) with a minimum grade of C-

Introduces the field of early childhood education. Focuses on the historical, theoretical and philosophical foundations of early childhood education. Emphasizes developmentally appropriate practices, constructivism, and integrated, child-centered curriculum. Covers learning in all domains and content areas. Explores the components that identify quality programs for young children. Addresses ethical and professional teaching practices. Includes 8 hours of classroom observations. Canvas Course Mats $60 Sage applies.

EDEC 2610 Child Guidance
3
* Prerequisite(s): ACT (or equivalent) composite score of 21+, or (ENGL 1010 or ENGH 1005 or higher) with a minimum grade of C-

Focuses on the adult role in fostering the social and emotional development of young children. Emphasizes strategies adults can use to build positive self-concept, appropriate social behaviors, empathy, independence, responsibility and effective communication in children. Addresses the value of play to enhance children's social development. Introduces strategies to reduce aggressive behaviors. Examines factors that effect resiliency in young children. Includes 20 hours of structured field observations and interactions with young children.

EDEC 2620 Early Childhood Curriculum
3
* Prerequisite(s): ACT (or equivalent) composite score of 21+, or (ENGL 1010 or ENGH 1005 or higher) with a minimum grade of C-, EDEC 2600 recommended

Examines the philosophy of Developmentally Appropriate Practice in connection to teaching preschool children, preparing the classroom environment, and planning/ implementing instruction. Investigates a variety of curriculum models. Addresses the role of play to support learning in all areas of development. Introduces the principles of intentional teaching. Focuses on creating and teaching child-guided and teacher-guided learning experiences using early childhood standards. Covers integrating content when planning lessons. Includes curriculum mapping to facilitate integration of state core curriculum standards in early childhood classrooms. Includes 20 hours of field experiences in an early childhood classroom. Course fee of $10 for materials applies.

EDEC 2630 Literacy and Language for Early Childhood
3
* Prerequisite(s): ACT (or equivalent) composite score of 21+, or (ENGL 1010 or ENGH 1005 or higher) with a minimum grade of C-

Introduces practical aspects of fostering literacy development in young children. Focuses on emerging and early literacy in the home, early care, and education settings. Investigates strategies for holistic integration of various literacy processes. Addresses the role of appropriate children's literature to support early language and literacy development. Examines methods for developing positive attitudes towards reading, writing and books.
EDEC 2700
Early Childhood Practicum
3
* Prerequisite(s): ACT (or equivalent) composite score of 21+, or (ENGL 1010 or ENGH 1005 or higher) with a minimum grade of C-, EDEC 2600 with a B- or higher
* Corequisite(s): EDEC 2720
* Prerequisite(s) or Corequisite(s): EDEC 2610 and EDEC 2620

Provides support-teaching and lead-teaching experiences in partnership preschool programs. Includes planning and implementing learning plans. Focuses on appropriate interactions with children in whole groups, small groups and individually. Addresses positive and effective guidance strategies. Provides parent education opportunities. Provides individual and collaborative reflection on teaching practices. Addresses professional and ethical teaching practices. Requires an assigned field experience with children. Course fee of $25 for materials applies.

EDEC 2720
Early Childhood Assessment
2
* Prerequisite(s): ACT (or equivalent) composite score of 21+, or (ENGL 1010 or ENGH 1005 or higher) with a minimum grade of C-, EDEC 2600 with a B- or higher
* Corequisite(s): EDEC 2700
* Prerequisite(s) or Corequisite(s): EDEC 2610 and EDEC 2620

Addresses assessment of children in an early childhood classroom during the practicum experience. Focuses on authentic assessment of young children, using anecdotal observations, child work samples, photos, checklists, event samplings, and logs. Emphasizes using child assessment to inform curriculum planning. Prepares participants to create child portfolio assessments for use in parent conferences. Includes creating a professional teaching portfolio assessment.

EDEC 3820
Assessment in the PreK-K classroom
3
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): EDEC 2620

Addresses assessment with children in pre-k or kindergarten classrooms. Focuses on authentic assessment of young children using anecdotal observations, child work samples, checklists, event samplings, and logs. Emphasizes assessment to inform curriculum planning. Addresses the connection between daily child assessment to Utah Early Childhood Core Standards or Utah State Kindergarten Core standards. Prepares participants to create child portfolio assessments for use in conference with parents. Includes personal professional portfolio assessment.

Edu Elementary Education (EDEL)

EDEL 1010 (Cross-listed with: EDSC 1010)
Introduction to Education
2
Facilitates matriculation into professional education programs. Examines the relationships of teaching, learning, motivating, and instructing in classroom settings. Includes observation in public schools to help students understand these relationships and appreciate the role of professional educators in today's society. Requires substantial commitment of time to off-campus field experiences.

EDEL 2200
Introduction to Educational Technology
2
Explores the evaluation, selection, and use of technology for children. Develops students' confidence in the use of a variety of technologies. Includes authentic hands-on experiences with digital tools. May be delivered online.

EDEL 2330
Children's Literature
3

EDEL 3000
Educational Psychology
3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair

Stresses research-based teaching/learning principles used in a classroom setting to enhance learning. Includes study of parent education, involvement, and support strategies, and collaboration with community agencies and professionals. Emphasizes the application of theory to practice with emphasis on teacher/student instructional interaction and teacher/parent/community agency interactions. Designed to help students understand how children develop and learn and how that knowledge should influence classroom teaching.

EDEL 3050
Foundations of American Education
2
* Prerequisite(s): University Advanced Standing and Admission to Professional Education Program or permission of department chair

Provides a broad and comprehensive overview of American education. Facilitates the understanding of current educational practices in America as a result of the social, historical, economic, and political forces that have had influence on the education system. Provides opportunities for students to evaluate their own belief system concerning education.

EDEL 3100
Kindergarten Classroom
2
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair

Examines the philosophy of Developmentally Appropriate Practice in connection to interactions with kindergarten children, preparing the classroom environment, and planning/implementing instruction. Addresses the role of play to support learning in all areas of development. Includes strategies for supporting children's social, emotional, and cognitive development. Introduces the principles of intentional teaching. Emphasizes lesson planning in all content areas. Addresses the teacher's responsibility in creating a child-centered environment that supports creativity, critical thinking, communication, and collaboration.

EDEL 325G
Equitable Technology Integration
2
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair

Addresses the equitable integration of technologies into elementary classroom instruction. Prepares future teachers to use technologies to differentiate their instruction to meet the needs of all students. Explores ways technology can be used to revitalize pedagogy. Explores the impact of the global digital divide. Provides future teachers with the ability to develop lesson activities that empower students to make meaningful connections and develop 21st Century skills.
Course Descriptions

EDEL 330G
Multicultural Education
3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair


EDEL 3350
Instructional Design and Assessment
3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair

Covers instructional design and assessment for program effectiveness and student achievement. Discusses instructional models, skills and techniques for engaging students in course content and assessing learning. Teaches beginning lesson plan design.

EDEL 340G
Exceptional Students
2
* Prerequisite(s): Admission to Professional Education Program or permission of department chair and University Advanced Standing

Covers the role of teachers in the inclusion of exceptional children, working with parents and specialists, and in developing individual educational plans for exceptional children. Introduces characteristics and special needs of exceptional children who have physical, emotional, social, mental, or health exceptionalities. Stresses curriculum modification planning necessary for special needs students. Addresses ethical behaviors specific to teaching exceptional children.

EDEL 4200
Elementary Learning Environments I
1
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair

Introduces students to basic classroom management ideas. Provides learning strategies for managing students and materials in the classroom environment. Explores basic classroom management theories and practices.

EDEL 4210
Elementary Learning Environments II
1
* Prerequisite(s): EDEL 4200, Admission to Professional Education Program, and University Advanced Standing

Establishes a foundation for selecting a model to follow for the development of a classroom management plan. Considers the role of the teacher and students in developing rules and establishing habits in a classroom setting.

EDEL 4230
Elementary Learning Environments III
1
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair

Presents strategies for routine management of the classroom environment and materials, and the initial set up of a classroom and management plans.

EDEL 4240
Elementary Learning Environments IV
1
EDEL 4400
Elementary Literacy Instruction and Assessment I
3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair

Presents practical and theoretical foundations for fostering reading competence in children, kindergarten through grade 3. Addresses literacy models, research-based reading instruction, and literacy assessments. Includes collaborative activities and public school field experience with children. Emphasizes findings of the National Reading Panel, International Reading Association standards and positions in literacy instruction, as well as Utah Common Core curriculum requirements.

EDEL 4410
Elementary Literacy Instruction and Assessment II WE
3
* Prerequisite(s): Admission to Professional Education Program or department chair permission and University Advanced Standing

Presents practical and theoretical foundations for fostering reading competence in children, grade 3 to 6. Surveys three essential components of learning to read: fluency, vocabulary, and comprehension, as well as reading motivation and academic reading. Addresses the explicit gradual release of responsibility model and think-alouds. Provides collaborative activities and public school field experience where original lesson plans are taught. Emphasizes findings of the National Reading Panel, International Reading Association standards and positions in literacy instruction, as well as Utah Common Core curriculum requirements.

EDEL 4420
Elementary Language Arts Instruction and Assessment
3
* Prerequisite(s): (Admission to Professional Education Program or department chair permission) and University Advanced Standing

Presents methods for teaching reading and language art concepts to children, grades K-6. Includes classroom instruction and field experiences with children.

EDEL 443G
Teaching Methods for English Learners GI WE
3
* Prerequisite(s): Admission to Professional Education Program or permission of department chair; University Advanced Standing

Introduces teachers to the teaching of English as a second language not only for linguistic development, but for cognitive, academic and social development. Includes classroom instruction and field experiences with children. Presents methods for promoting reading competence and fostering literacy in limited English-speaking children, grades K-6. Prepares teachers to teach English as a second language in U.S. public schools. Covers both theoretical and applied aspects of second language learning and teaching and provides techniques, activities, strategies and resources to plan instruction for English language learners (ELLs).
EDEL 4510
Elementary Mathematics Instruction and Assessment I
3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair
Introduces methods for teaching math concepts to children, grades K-6. Focuses on developing a mathematical mindset, choosing worthwhile mathematical tasks, and planning lessons. Includes classroom instruction and field experiences with children.

EDEL 4520
Elementary Science Instruction and Assessment
3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair
Presents methods for teaching science concepts to children, grades K-6. Includes classroom instruction and field experiences with children. Includes hands-on laboratory experiences.

EDEL 4530
Elementary Social Studies Instruction and Assessment
3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair
Presents methods for teaching social studies concepts to children, grades K-6. Includes classroom instruction and field experiences with children.

EDEL 4540
Elementary Fine Arts Instruction and Assessment
3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair
Presents methods for integrating music, art, dance, and drama experiences across the curriculum in grades K-6. Includes classroom instruction and field experiences with children.

EDEL 4550
Elementary Mathematics Instruction and Assessment II
3
* Prerequisite(s): University Advanced Standing, EDEL 4510, and admission to Professional Education Program or permission of department chair
Presents methods for teaching math concepts through the contexts of specific mathematical content to children, grades K-6. Includes classroom instruction and field experiences with children.

EDEL 4620
Differentiation for Academic Diversity II
2
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair
Includes theory and philosophy for teachers working with diverse populations, grades K-6. Outlines critical need for knowing students' personal, cultural, and community assets, as well as academic strengths and needs. Addresses strategies for pre- and formative assessment determining instruction that differentiates content, learning processes, and products for students' readiness, interests, and learning profiles.

EDEL 4880
Student Teaching--Grades K-6
9
* Prerequisite(s): University Advanced Standing, admission to Professional Education Program or permission of department chair, and successful completion of all other professional coursework.
* Corequisite(s): EDEL 4240, EDEL 4880, and EDEL 4990
Provides a culminating 12-week teaching experience in an elementary classroom, grades K-6. Enhances knowledge, skills, and attitudes in preparation for a teacher preparation assessment. Course Lab fee of $200 for practical experience applies.

EDEL 4980
Elementary Education Capstone Seminar
1
* Prerequisite(s): University Advanced Standing, admission to Professional Education Program or permission of department chair, and successful completion of all other professional coursework.
* Corequisite(s): EDEL 4240, EDEL 4880, and EDEL 4990
Integrates previous coursework and current student teaching or internship experience. Includes designing, teaching and assessing a comprehensive learning segment in both literacy and math. Engages preservice teachers in professional analysis and reflection.

EDEL 4990
Teacher Performance Assessment Project 2
* Prerequisite(s): University Advanced Standing, admission to Professional Education Program or permission of department chair, and successful completion of all other professional coursework
* Corequisite(s): EDEL 4240, EDEL 4880, and EDEL 4980
Introduces the teaching and learning cycle: planning, instruction, and assessment. Assists students in completing an authentic assessment tool that shows how they develop and evaluate student learning. Documents authentic practices from the student's teaching experience that address planning, instruction, assessment, analyzing teaching, and academic language to reveal the impact of a candidate's teaching performance on student learning. Course lab fee of $300 for the teacher performance assessment applies.

Higher Education Leadership (EDHE)

EDHE 6200
Higher Education Leadership Capstone Project
3
* Prerequisite(s): Admission to Master of Education Higher Education Leadership program.
Focuses on the capstone project report. Addresses literature review, proposal, feedback and future steps. Includes report and defense of capstone projects.

EDHE 6410
Foundations and Contexts of Higher Education
3
* Prerequisite(s): Admission to the Master of Education in Higher Education Leadership program, or permission of the graduate program director.
Examines diverse models and systems of higher education in an effort to provide contexts for effective work and leadership in higher education environments. Explores the nuances of higher education institutions in terms of political dynamics, shared governance, technology, innovation, organizational culture, and external/internal constituent expectations and perceptions. Discusses U.S. and international models of higher education and future possibilities.
Course Descriptions

EDHE 6420  
Diversity in Higher Education  
3  
* Prerequisite(s): Admission to the Master of Education in Higher Education Leadership program, or permission of the graduate program director.

Examines multiple critical lenses informing the higher education landscape on issues related to marginalization, identity, silence, under-representation and other factors that American higher education has historically been inadequate at addressing. Guides students to develop a personal framework based in reflexivity around biases. Synthesizes collegial, institutional, historical and contextual nuances to provide foundational knowledge. Develops a dispositional and interdisciplinary approach to facilitate inclusion within particular higher education roles and activities.

EDHE 6430  
Student Success and Development  
3  
* Prerequisite(s): Admission to the Master of Education in Higher Education Leadership program, or permission of the graduate program director.

Presents various theories relevant to college student development and applies those theories to the field through class discussion, papers, and special projects. Introduces students to the major theories of learning, development, and retention and connects them with current practice.

EDHE 6440  
Leadership in Higher Education  
3  
* Prerequisite(s): Admission to the Master of Education in Higher Education Leadership program, or permission of the graduate program director.

Examines organizational theory, models, governance, and management processes in higher education, leadership perspectives and leadership theory. Explores leadership as a discipline that transcends functional area, serving as a framework to lead and guide within higher education. Investigates leadership theories and formulates personal approach as an educational leader.

EDHE 6450  
Law-Policy-Ethics in Higher Education  
3  
* Prerequisite(s): Admission to the Master of Education in Higher Education Leadership program, or permission of the graduate program director.

Examines legal frameworks, liability, compliance, constitutional and civil rights, competing rights of institutions, faculty, staff, and students, and contractual obligations in higher education. Explores the legal, ethical, institutional, and political processes that influence higher education and the relationship between law and the system of higher education. Critiques legal issues as a way to define the role and meaning of higher education in today’s society.

EDHE 6460  
Planning-Budget-Organizational Effectiveness  
3  
* Prerequisite(s): Admission to the Master of Education in Higher Education Leadership program, or permission of the graduate program director.

Examines the principles and practices of strategic planning, evaluation, accountability, and financial management in higher education institutions, operating units, and academic programs.

EDHE 696R  
Higher Education Leadership Capstone  
1  
* Prerequisite(s): Admission to Master Education Higher Education Leadership program

Addresses the three phases of capstone project development. Provides instruction on writing the literature review. Examines the development of the capstone proposal and presentation. Incorporates feedback and reflection on proposal presentations.

K-12 Education Leadership (EDLE)

EDLE 6120  
Personal Leadership and Organizational Design  
3  
* Prerequisite(s): Admission to Master of Education in K-12 Education Leadership or Graduate Certificate leading to USBE K-12 Education Leadership License Area of Concentration, or permission of the graduate program director.

Introduces students to critical concepts about leadership theories and practice. Provides both historical perspective and current understanding to approaches, methods, and practices of leaders. Provides insight into how leadership skills and organization strategies produce increased productivity and better learning/working environments for P-12 students’ academic success and well-being. Provides opportunity for class members to examine their own beliefs and develop a personal model of leadership. Emphasizes attributes that promote integrity, fairness, transparency and trust.

EDLE 6130  
School Operations and Management-Finance/Law/Safety  
3  
* Prerequisite(s): Admission to the Master of Education in K-12 Education Leadership program, the Graduate Certificate in Educational Leadership program, or permission of the graduate program director.

Explores school finance, law, and safety as primary themes in school management and operations. Provides an overview of current K-12 management conditions and theory. Discusses these themes 1) best management theories and practices for not-for-profit organizations, 2) rules and regulations that govern school finance, 3) court rulings in areas of student speech, discipline, and other points of tensions in public schools, and 4) school organization to keep students physically and emotional safe.

EDLE 6140  
Instructional Leadership  
3  
* Prerequisite(s): Admission to the Master of Education in K-12 Education Leadership program, the Graduate Certificate in Educational Leadership program, or permission of the graduate program director.

Advances student understanding, skill, and capacity to facilitate coherent systems of curriculum development, impactful instruction, valid assessment. Builds professional capacity for data interpretation and decision making for the success and well-being of students and faculty.
EDLE 6150
School Operations and Management-Communication/Planning/HR/Evaluation
3
* Prerequisite(s): Admission to the Master of Education in K-12 Education Leadership program, the Graduate Certificate in Educational Leadership program, or permission of the graduate program director.

Explores school communication, planning, human resources, and evaluation as primary themes in school management and operations. Provides an overview of current K-12 management conditions and theory. Reviews the role of legislation, policy, and leadership on the primary themes. Prepares students to communicate with stakeholders, strategically plan for school improvement, know best practices in the hiring and retention of public school staff.

EDLE 6160
Developing Positive School and Community Culture
3
* Prerequisite(s): Admission to the Master of Education in K-12 Education Leadership program, the Graduate Certificate in Educational Leadership program, or permission of the graduate program director.

Introduces students to critical concepts about building a school culture that leverages the strengths of collective solutions. Identifies leadership skills required to effectively manage change within the school setting. Introduces assessments to use in identifying challenges and summarizing impact of PLC fairness, transparency, and trust.

EDLE 6170
Leading Change/Innovation/Educational Entrepreneurship
3
* Prerequisite(s): Admission to the Master of Education in K-12 Education Leadership program, the Graduate Certificate in Educational Leadership program, or permission of the graduate program director.

Introduces critical concepts of school change. Addresses strategies to encourage and manage innovation and entrepreneurship. Prepares students to aid learners in developing deeper abilities to create, critique, and collaborate to solve complex challenges facing society. Prepares students to successfully manage change and innovation in teaching and learning in the 21st century. Guides students in learning to anticipate needed changes and to develop skills to effectively lead innovation in their school settings.

EDLE 6200
Current Research in Education Leadership
3
* Prerequisite(s): Admission to Master Education Leadership program leading to USBE Professional Education Leadership License Area in K-12 Education Leadership Concentration.

Examines current research in education leadership through reading, discussion, analysis, and writing. Includes reviews of research literature related to K-12 education. Emphasizes connections to state board professional requirements.

EDLE 696R
Clinical Portfolio
1
* Prerequisite(s): Admission to the Master of Education in K-12 Education Leadership program, the Graduate Certificate in Educational Leadership program, or permission of the graduate program director.

Fulfills matriculation into professional education programs. Examines the relationships of teaching, learning, motivating, and instructing in classroom settings. Includes observation in public schools to help students understand these relationships and appreciate the role of professional educators in today’s society. Requires substantial commitment of time to off-campus field experiences.

Edu Secondary Education (EDSC)

EDSC 1010 (Cross-listed with: EDEL 1010)
Introduction to Education
2
Facilitates matriculation into professional education programs. Examines the relationships of teaching, learning, motivating, and instructing in classroom settings. Includes observation in public schools to help students understand these relationships and appreciate the role of professional educators in today’s society. Requires substantial commitment of time to off-campus field experiences.

EDSC 3000
Educational Psychology
3
* Prerequisite(s): Admission to Professional Education Program and University Advanced Standing

Stresses research-based teaching and learning principles used in secondary classroom settings to enhance student learning and motivation. Emphasizes the application of theory to practice. Designed to help students in the professional secondary teacher preparation program prepare for state teacher licensing requirements. Requires service-learning.

EDSC 3050
Foundations of American Education
2
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair

Provides a broad and comprehensive overview of American education. Facilitates the understanding of current educational practices in America as a result of the social, historical, economical, and political forces that have had influence on the education system. Provides opportunities for students to evaluate their own belief system concerning education.

EDSC 325G
Equitable Technology Integration
2
* Prerequisite(s): Admission to Professional Education Program and University Advanced Standing

Addresses the equitable integration of technologies in 7-12th grade and in all curricular areas. Prepares future teachers to use technologies to differentiate their instruction to meet the needs of all students. Explores ways technology can be used to revitalize pedagogy. Evaluates the impact of the global digital divide. Provides future teachers with the ability to develop lesson activities that empower students to make meaningful connections and develop 21st Century skills.

EDSC 4200
Classroom Management I
2
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair

Provides effective classroom management procedures (including classroom setup). Develops strategies to build strong student-teacher relationships and classroom management philosophy, rules, and consequences. Identifies strategies for 1st day success and strategies to handle behavior problems encountered in the classroom.

EDSC 4250
Classroom Management II
2
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair

Corequisite(s): (EDSC 4850 and EDSC 4990) or (EDSP 4990 and EDSP 4885 or EDSP 4895)

Develops strategies for planning and conducting instruction. Establishes appropriate strategies for handling chronic misbehavior and students with behavioral or emotional disorders. Explores practical and appropriate responses, including internal control and behavior modification strategies with an emphasis on self-monitoring. Prepares preservice secondary teachers to interact well with parents.
EDSC 4440
Content Area Literacies
3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair

Prepares preservice secondary teachers to facilitate the development of reading, writing, speaking and listening skills in the content areas through an asset-based lens and to support and expand the literacy practices of their disciplines.

EDSC 445G
Multicultural Instruction ESL
3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair

Prepares pre-service secondary teachers to understand and facilitate achievement in the content areas for ethnically and linguistically diverse students at the middle school and high school level. Covers foundations of multicultural education and instructional methodology for adaptations for ethnically and linguistically diverse students. Emphasizes inclusive, anti-bias classroom strategies for supporting learning and development of diverse students. Encourages examination of personal beliefs and attitudes about diversity. Introduces teachers to the teaching of English as a second language not only for linguistic development, but for cognitive, academic and social development. Covers both theoretical and applied aspects of second language learning and teaching and provides techniques, activities, strategies and resources to plan instruction for English language learners (ELLs).

EDSC 455G
Secondary Curriculum Instruction and Assessment
3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair

Examines state standards to prepare preservice secondary teachers to write objectives, lesson plans, and units using appropriate models of instruction and assessment. Includes a field experience component.

EDSC 4850
Student Teaching Secondary
4 to 10
* Prerequisite(s): University Advanced Standing, admission to Professional Education Program or permission of department chair, and successful completion of all other professional coursework
* Corequisite(s): EDSC 4250 and EDSC 4990

Provides a thirteen-week teaching experience in a secondary classroom, grades 7-12. Includes application of knowledge, skills, and attitudes derived in previous course work and program experience. Requires students to be recommended for a secondary education license from the Utah State Board of Education. Course Lab fee of $200 for practical experience applies.

EDSC 491R
Independent Study
2 to 4
* Prerequisite(s): Department Chair Approval and University Advanced Standing

For Bachelor Degree seeking students and University Advanced Standing and admission to Professional Education Program or permission of department chair, and successful completion of all other professional coursework; University Advanced Standing

Provide a thirteen-week teaching experience in a secondary classroom, grades 7-12. Includes application of knowledge, skills, and attitudes derived in previous course work and program experience. Requires students to be recommended for a secondary education license from the Utah State Board of Education. Course Lab fee of $200 for practical experience applies.

EDSC 4990
Teacher Performance Assessment Project WE
2
* Prerequisite(s): Admission to Professional Education Program or permission of department chair, and successful completion of all other professional coursework; University Advanced Standing
* Corequisite(s): EDSC 4250 and EDSC 4850

Introduces the teaching and learning cycle: planning, instruction, and assessment. Assists students in completing an authentic assessment tool that shows how they develop and evaluate student learning. Documents authentic practices from the student's teaching experience that address planning, instruction, assessment, analyzing teaching, and academic language to reveal the impact of a candidate's teaching performance on student learning. May be Graded Credit/No Credit. Course lab fee of $300 for edTPA Performance Assessment applies.

Edu Special Education (EDSP)

EDSP 2840
Instruction and Assistive Technology
2

Provides students with an overview of the field of instructional and assistive technology (IT and AT) and an understanding of how to successfully integrate varied uses of technology into their specific learning environment. Develops students' proficiencies for evaluating technology needs and teaching technology-enhanced learning activities to support students with diverse needs in the classroom.

EDSP 3000
Educational Psychology
3
* Prerequisite(s): Admission to Professional Education Program and University Advanced Standing

Stresses research-based teaching and learning principles used in classroom settings to enhance student learning and motivation. Emphasizes the application of theory to practice. Helps students in the professional teacher preparation program prepare for state teacher licensing requirements. Requires service-learning.

EDSP 340G
Exceptional Students
2

Covers the role of teachers in the inclusion of exceptional children, working with parents and specialists, and in developing individual educational plans for exceptional children. Introduces characteristics and special needs of exceptional children who have physical, emotional, social, mental, or health exceptionalities. Stresses curriculum modification planning necessary for special needs students. Addresses ethical behaviors specific to teaching exceptional children. Requires ten hours of field work.

EDSP 4100
Instructional Strategies and Program Management for Students with Mild/Moderate Disabilities
3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair

Provides an overview of the individual education plan (IEP), service delivery patterns, assessment and programming variables and organizational variables necessary for teaching students with mild/moderate and significant disabilities.
EDSP 4110
Special Education Law/Policies/Procedures 3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair
Provides overview of the role of the federal, state, and local government in special education issues with special emphasis on case and regulatory law, including Utah regulation. Focuses on six major principles of the Individuals with Disabilities Education Act as they relate to the free and appropriate public education for all students.

EDSP 4120
School to Post-School Transition Planning 2
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair
Provides students with knowledge, strategies, and resources necessary to prepare students with disabilities for the transition from school to postsecondary education, employment, community participation, and independent living. Provides skills for transition planning and helping students access services necessary to reach their desired outcomes and become as independent as possible. Emphasizes the person-centered planning process, which embeds decisions based on students’ preferences, interests, and abilities.

EDSP 4130
Math Instruction for Students with Mild/Moderate/Severe Disabilities 2
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair
* Corequisite(s): EDSP 4131
Provides specific strategies and techniques to use in teaching students with learning difficulties both in pull-out special educational settings and in more inclusive general education settings. Provides math curricula aligned with the Utah Core standards using Utah Effective Teaching standards. Emphasizes how to implement targeted interventions in Math at the Tier 3 level for students who are not making progress at the Tier 1 and Tier 2 interventions.

EDSP 4131
Math Practicum 1
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair
* Corequisite(s): EDSP 4130
Provides students the opportunity spend time in practicum placements to practice applying skills, competencies, and techniques to teach math to students with mild or moderate disabilities. Provides students with an opportunity to work with practicum coordinators to analyze and solve instructional and management problems by making data-based decisions.

EDSP 4135
Reading and Writing Instruction for Students with Mild/Moderate/Severe Disabilities K-12 2
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair
* Corequisite(s): EDSP 4136
Provides specific strategies and techniques to use in teaching students with learning difficulties both in pull-out special educational settings and in more inclusive general education settings. Features reading and writing curricula aligned with the Utah Core standards using Utah Effective Teaching standards. Emphasizes evidence-based practices and empirically supported instruction for teaching reading and writing to students with disabilities combined with data based decision making.

EDSP 4136
Reading Practicum 1
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair
* Corequisite(s): EDSP 4135
Provides students practicum placements to practice applying skills, competencies, and techniques to teach reading and writing to students with mild or moderate disabilities. Provides students with practicum coordinators to analyze and solve instructional and management problems by making data-based decisions.

EDSP 4140
Collaboration and Consultation with Parents and School Staff WE 3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair
Provides strategies for collaborating and communicating with families, other educators, related service providers, individuals with exceptionalities, and personnel from community agencies in culturally responsive ways. Provides a review of interagency collaboration and consultation for life skills. Emphasizes creating multidisciplinary teams and professional learning communities who are prepared to assist parents and other teachers in collaborative problem solving.

EDSP 4160
Assessment and Evaluation in Special Education 3
* Prerequisite(s): University Advanced Standing and admission to Professional Education Program or permission of department chair
Provides an overview of multiple methods of assessment. Presents the connection between gathering assessment information and applying results to decisions regarding students’ eligibility for special education services. Includes administering eligibility assessment tests, interpreting results, and communicating results of assessment tools.

EDSP 4170
Instruction in Life Skills for Students with Severe and Significant Disabilities 3
* Prerequisite(s): (Admission to Professional Education Program or permission of department chair) and University Advanced Standing
Provides special education pre-service teachers with knowledge and understanding of the characteristics and needs of individuals with severe and significant disabilities. Includes instructional programs and practices for Students with Moderate and Severe Disabilities. Evaluates procedures for data based evaluation of student progress.
Course Descriptions

EDSP 4180
Curriculum and Instruction for Students with Severe and Significant Disabilities

* Prerequisite(s): (Admission to Professional Education Program or permission of department chair) and University Advanced Standing

Examines the history of instructional models and characteristics for students with moderate and severe disabilities. Creates instruction and assessment that includes accommodations, adaptations and materials appropriate for teaching individuals with moderate and severe disabilities. Evaluates methods of assessment for purposes of classification and educational placement.

EDSP 4200
Classroom Management I

* Prerequisite(s): (Admission to Professional Education Program or permission of department chair) and University Advanced Standing

Provides effective classroom management procedures (including classroom setup). Develops strategies to build strong student-teacher relationships and classroom management philosophy, rules, and consequences. Identifies strategies for 1st day success and strategies to handle behavior problems encountered in the classroom.

EDSP 4250
Classroom Management II

* Prerequisite(s): (Admission to Professional Education Program or permission of department chair) and University Advanced Standing

Develops strategies for planning and conducting instruction. Establishes appropriate strategies for handling chronic misbehavior and students with behavioral or emotional disorders. Explores practical and appropriate responses, including internal control and behavior modification strategies with an emphasis on self-monitoring. Prepares preservice teachers to interact well with parents.

EDSP 4440
Content Literacy

* Prerequisite(s): (Admission to Professional Education Program or permission of department chair) and University Advanced Standing

Prepares preservice teachers to facilitate reading, writing and study skills achievement in the content areas. Includes field experience in public schools.

EDSP 445G
Multicultural Education/ESL

* Prerequisite(s): (Admission to Professional Education Program or permission of department chair) and University Advanced Standing

Prepares pre-service teachers to understand and facilitate achievement for ethnically and linguistically diverse students in the classroom. Covers foundations of multicultural education and instructional methodology for adaptations for ethnically and linguistically diverse students. Emphasizes inclusive, anti-bias classroom strategies for supporting learning and development of diverse students. Encourages examination of personal beliefs and attitudes about diversity. Introduces teachers to the teaching of English as a second language not only for linguistic development, but for cognitive, academic and social development. Covers both theoretical and applied aspects of second language learning and teaching and provides techniques, activities, strategies and resources to plan instruction for English language learners (ELLs).

EDSP 455G
Curriculum Design and Assessment

* Prerequisite(s): (Admission to Professional Education Program or permission of department chair) and University Advanced Standing

Examines state standards to prepare preservice teachers to write objectives, lesson plans, and units using appropriate models of instruction and assessment. Includes a field experience component.

EDSP 4885
Special Education Student Teaching--Grades K-6

* Prerequisite(s): Admission to Professional Education Program, Successful completion of all professional education courses, and University Advanced Standing

Assists students in completing an authentic assessment tool that shows how they develop and evaluate student learning. Documents authentic practices from the student's teaching experience that address planning, instruction, assessment, analyzing teaching, and academic language to reveal the impact of a candidate's teaching performance on student learning. May be graded credit/no credit. Course lab fee of $500 for edTPA Performance Assessment applies.

EDSP 4990
Teacher Performance Assessment Project--WE

* Prerequisite(s): University Advanced Standing, admission to Professional Education Program or permission of department chair, and successful completion of all other professional coursework

Introduces the teaching and learning cycle: planning, instruction, and assessment. Assists students in completing an authentic assessment tool that shows how they develop and evaluate student learning. Documents authentic practices from the student's teaching experience that address planning, instruction, assessment, analyzing teaching, and academic language to reveal the impact of a candidate's teaching performance on student learning. May be graded credit/no credit. Course lab fee of $500 for edTPA Performance Assessment applies.

Education Curr and Instruction (EDUC)

EDUC 5100
Personal Finance in Education

* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education

Focuses on teaching how to better manage personal finances. Requires students to develop lesson plans on personal financial planning, including goal setting, time value of money, personal financial statements, cash management, credit cards, credit, loans, buying skills, insurance, taxes, housing, investment alternatives, estate and retirement plans.
EDUC 5201
Teacher Performance Assessment Project 2
* Prerequisite(s): Employment by a state approved LEA, state associates license, completion of LEA required coursework.
Introduces the learning cycle: planning, instruction, and assessment. Assists students in completing an authentic assessment tool that shows how they develop and evaluate student learning. Documents authentic practices from the student's teaching experience that address planning, instruction, assessment, analyzing teaching, and academic language to reveal the impact of a candidate's teaching performance on student learning.

EDUC 5202
Creating a Positive Learning Environment 3
* Prerequisite(s): Bachelor's degree, employment as teacher of record for a state approved LEA, Utah Associate educator's license.
Provides first-hand, supervised, clinical experience in observing and implementing effective class management practices.

EDUC 520R
Special Topics in Education .5 to 3
* Prerequisite(s): University Advanced Standing
Provides professional educators, administrators, policy makers, and interested members of the public with increased understanding of the latest research affecting K-12 education. Focuses on helping participants keep abreast of effective teaching strategies and curriculum design, alternative learning structures, innovative teaching technologies, educational policies and legislation, etc. May be repeated as many times as desired.

EDUC 5300
Content-based Curriculum and Instruction and Assessment 3
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education
Provides a foundation in curriculum theory and practice. Introduces instructional design theories, principles and models. Outlines the historical development, current processes and practices of curriculum development, instructional design, implementation, and assessment. Examines applications and processes of curriculum decision making and the impact of national standards on curriculum design and development at the classroom, district, state, and national levels. Requires 15 field experience/practicum hours in addition to class time.

EDUC 5310
Introduction to Special Education 3
* Prerequisite(s): Admission to Graduate Status Admission to the School of Education Masters Degree Program or permission of the Dean
Provides a comprehensive introduction of characteristics of children and youth with disabilities and topics related to models of service delivery, documentation procedures, and legal/ethical issues. Includes historical factors, legislation, etiology, characteristics, needs, educational strategies, including existing and emerging technologies, assessment, and support services for individuals with disabilities ranging from mild, moderate to severe levels of varying disabilities. Studies the impact of disabilities on academic and social/emotional performances.

EDUC 5320
Diversity and Differentiation in the Classroom 3
* Prerequisite(s): Bachelor's degree, employment as teacher of record for a state approved LEA, Utah Associate educator's license.
Provides an in-depth understanding of differentiated instructional design and delivery. Focuses on planning and implementing instruction for a diverse classroom community.

EDUC 5340
Methods of Second Language Acquisition for Practitioners 3
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education
Prepares teachers to teach content in students' second language in U.S. public schools. Includes applied aspects of second language learning and teaching. Provides general and special educators, and dual language or second language specialists the techniques, activities, strategies, and resources needed to plan instruction for second language learners. Emphasizes the development of teaching skills in language development, literacy, and content-area instruction for K-12 students. Requires 15 hours of field experience/practicum hours as part of course assignments.

EDUC 5350
Theories of Second Language Acquisition for Practitioners 3
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education
Examines the intricate web of variables that interact in the second language learning process, including linguistic, cognitive, social, cultural, and political factors. Examines each of these factors in turn and develops understanding of how they work together to foster or inhibit successful second language learning and acquisition. Requires 15 hours of field experience/practicum hours as part of course assignments. Course fee of $15 applies.

EDUC 5360
Multicultural Education for Practitioners 3
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education
Identifies the connections between language, culture, and identity. Examines multicultural education in the classroom through a focus on the historical, sociological, and philosophical foundations of education in the development of the United States and its education system. Outlines methods to create multicultural/multilingual curricula with a special focus on culturally/linguistically-responsive instruction and assessment techniques.

EDUC 5370
Assessment for Second Language Learners for Practitioners 3
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education
Examines methods and practice for the testing of bilingual students at the classroom level. Focuses on assessment of language proficiency in English language learners (ELL) and the assessment of academic achievement of bilingual students in specific content areas. Develops and reviews tasks (test items), response formats, scoring systems, and test administration procedures as critical to attaining validity and fairness. Examines major current testing policies for linguistic minority students. Practicum required. Course fee of $15 applies.

EDUC 5380
Second Language Literacy Development for Practitioners 3
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education
Provides teachers with a theoretical framework for understanding literacy and linguistic development of students learning in a second language. Provides an understanding of the literacy instructional needs of these students. Increases knowledge and skill in instructional practices that support second language literacy learning.
Course Descriptions

EDUC 5390  
Family and Community Involvement for Practitioners  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education  
Provides strategies classroom teachers may use for facilitating community participation in the education of minorities. Examines how the teacher's role impacts the adjustment of students to the classroom environment. Studies the techniques of family-school collaboration as well as constructive methods of evaluation. Practicum required. Course fee of $15 applies.

EDUC 5411  
Foundations of Instructional Coaching  
3  
* Prerequisite(s): Five years of classroom experience or equivalent with at least one year in the Utah Educational system with a Utah Professional Educator license; instructional coaching experience; experience providing professional learning for adults; three consecutive years of effective or higher rating on Utah Effective Teaching Standards (UETS).  
Teaches the Utah State Board of Education (USBE) Instructional Coaching Framework. Ensures a level of consistency statewide among all institutions providing courses for the Instructional Coaching Endorsement.

EDUC 5412  
Adult Learning Theory  
3  
* Prerequisite(s): Five years of classroom experience or equivalent with at least one year in the Utah Educational system with a Utah Professional Educator license; instructional coaching experience; experience providing professional learning for adults; three consecutive years of effective or higher rating on Utah Effective Teaching Standards (UETS).  
Ensures that those obtaining the Utah State Board of Education Instructional Coaching endorsement are prepared with the requisite, foundational skill-set to effectively coach their fellow educators' practice to improve student outcomes and overall educator effectiveness.

EDUC 5500  
Teaching K-6 Numbers and Operations for Practitioners  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education  
Designed for K-6 teachers. Covers the content of Number and Operations to develop a comprehensive understanding of our number system and relate its structure to computation, arithmetic, algebra, and problem solving. Includes number, number sense, computation, and estimation through a coordinated program of activities that develop number concepts and skills. Special attention in this course will be given to planning lessons in the mathematical content of number and operations and problem solving strategies. Emphasizes interpreting and assessing students' work and learning, and the integration of the NCTM process standards and the Utah Intended Learning Outcomes (ILOs). Course fee of $15 applies.

EDUC 5510  
Teaching K-6 Rational Numbers and Proportional Reasoning for Practitioners  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education  
Provides practicing teachers a deeper understanding of rational numbers, operations with rational numbers, proportionality, and instructional strategies to facilitate the instruction of this content for elementary students. Course fee of $15 applies.

EDUC 5520  
Teaching K-6 Algebraic Reasoning for Practitioners  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education  
Develops a firm problem-solving foundation. Using skills and strategies applied in mathematical contexts practicing teachers will learn to think, work with others, present solutions orally to the whole class, and write up detailed solutions. Provides practicing teachers a deeper understanding of probability and data representation and analysis. Special attention in this course will be given to applying content understandings to classroom practice, to interpreting and assessing students' work and learning, and to integrating NCTM process standards and the Utah Intended Learning Outcomes (ILOs) into instruction.

EDUC 5530  
Teaching K-6 Geometry and Measurement for Practitioners  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education  
Provides practicing teachers a deeper understanding of the geometry and measurement content that exists in the state core and instructional strategies to facilitate the instruction of this content. Special attention in this course will be given to applying content understanding in geometry and measurement to classroom practice, interpreting and assessing students' work and learning, and to integrating NCTM process standards and the Utah Intended Learning Outcomes (ILOs) into instruction. Course fee of $15 applies.

EDUC 5540  
Teaching K-6 Data Analysis and Problem Solving for Practitioners  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education  
Provides practicing teachers a deeper understanding of probability and data representation and analysis. Special attention in this course will be given to applying content understandings to classroom practice, to interpreting and assessing students' work and learning, and to integrating NCTM process standards and the Utah Intended Learning Outcomes (ILOs) into instruction.

EDUC 5550  
Teaching K-6 Assessment and Intervention for Practitioners  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education  
Provides practicing teachers a deeper understanding of the various types of assessment and their appropriate use for guiding instruction, intervention, and evaluation of student learning of mathematics content. Special attention will be given to the application of mathematical content understandings to planning for classroom instruction and assessment of student learning that is consistent with NCTM process standards and Utah instructional learning outcomes.
EDUC 5560  
Curriculum Instruction and Assessment for Elementary Mathematics Leaders  
3  
* Prerequisite(s): Previously earned Elementary Mathematics Endorsement  
Develops a broader perspective of curriculum, instruction, and assessment in elementary mathematics education. Emphasizes methods that support teachers and systems.

EDUC 5570  
Elementary Mathematics Education Leadership for School Change  
3  
* Prerequisite(s): Earned Elementary Mathematics Endorsement  
Develops education leadership knowledge and skills. Analyzes policy and curriculum issues. Analyzes research informing instructional practice. Examines the implementation and evaluation of professional development. Evaluates educational structures that affect equity including use of materials. Examines responsibilities of math coaches and mentors.

EDUC 5600  
Learning Development and Individual Learning Differences in Gifted Education  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education  
Introduces the characteristics and needs of gifted children and youth. Includes types of programs available to gifted children and youth, the historical and philosophical foundations required of professionals in the field, the history of the gifted child movement, and advocacy for gifted children and youth.

EDUC 5610  
Learning Environments for Gifted Students  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education  
Provides an introduction to creating safe learning environments that foster emotional well-being, positive social interaction, leadership, and cultural understanding for success in a diverse society. Develops knowledge of the impact of giftedness and diversity on social-emotional development. Provides support on how to design environments, within a continuum of services, that encourage independence, motivation, and self-efficacy of individuals from all backgrounds.

EDUC 5620  
Assessment in Gifted Education  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education  
Examines how to collect multiple types of assessment information so that all students are able to demonstrate gifts and talents. Develops competence in differentiating curriculum and instruction by using pre- and post-, performance-based, product-based, and out-of-level assessments. Promotes the importance of using non-biased, technically adequate, and equitable approaches in order to identify students from diverse backgrounds for gifted programs.

EDUC 5630  
Theory into Practice in Gifted and Talented Education  
2  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education  
Prepares teachers to understand societal influences on the development of curricula. Helps teachers to develop long- and short-range units of instruction anchored in both general and special curricula for gifted and talented students, taking into consideration each individual's abilities and needs, the learning environment, and cultural and linguistic factors.

EDUC 5635  
Methods and Materials in Gifted Education for Practitioners  
2  
* Prerequisite(s): Utah Teaching License or permission from the Dean of the School of Education  
Requires teacher-participants to locate, create, and or adapt curricular materials needed to implement differentiated instruction for gifted and talented learners. Helps teachers develop materials and methods of instruction that will encourage creative problem-solving and should be adaptable for a variety of student abilities and needs, the learning environment, and cultural and linguistic factors that may influence instruction.

EDUC 5640  
Curriculum/Instructional Planning in Gifted Education  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education  
Provides research-based models of curriculum and instruction related to students with gifts and talents. Includes responding to student needs by planning, selecting, adapting, and creating culturally relevant curriculum and by using a repertoire of evidence-based instructional strategies to ensure specific student outcomes. Explains the purpose of using a comprehensive and sequenced core curriculum that is aligned with local, state, and national standards, and how to differentiate and expand it in order to meet the unique needs of students with gifts and talents. Develops competence in selecting, adapting, and planning for the use of a variety of evidence-based instructional strategies to advance learning of gifted and talented individuals.

EDUC 5650  
Leadership in Gifted and Talented Education  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education  
Prepares teachers to effectively use leadership principles to collaborate with students and their families, other educators, and related service providers to advocate for individuals with gifts and talents as they promote the learning and well-being of individuals with gifts and talents across settings and diverse learning experiences.

EDUC 5660  
Reading Assessments and Instructional Interventions for Practitioners  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education  
Helps practicing teachers become proficient in developing and using a variety of formal and informal assessments and instructional procedures to increase or accelerate students' reading achievement as appropriate. Prepares teachers to screen for reading problems, diagnose reading strengths and needs, and monitor progress to ensure students achieve optimal growth in reading within the context of a Multi-Tiered System of Supports. Develops procedures for gathering, analyzing, and interpreting data to inform instruction, and presents an overview of methods for communicating findings to stakeholders.
EDUC 5661
Foundations of Literacy
3
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education

Helps practicing teachers acquire foundational and declarative knowledge about literacy instruction, including historical perspectives on reading instruction, an introduction to theories and models of literacy acquisition, and discussions of research related to lifelong literacy and its instructional implications. Requires students to examine the history of the field of literacy, including the debates and various stances of reading researchers and the instructional directives developed as a result of the research.

EDUC 5662
Instruction with Literature and Informational Texts for Children and Young Adults
3
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education

Provides an overview of literary and informational texts for children and young adults, with emphasis on classic and recent publications, and their appropriate use in the classroom. Discusses important authors, historical context, and background, and considers current trends and classroom applications in literacy.

EDUC 5663
Content Area Reading and Writing Instruction for Practitioners
3
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education

Helps practicing teachers develop an in-depth understanding of the research findings, issues, principles, and practices related to exemplary, research-based literacy instruction in the content areas. Prepares teachers to provide every student with meaningful and engaging opportunities to learn high-level skills through reading, writing, and speaking while working with graphics and texts, including images, video, and audio, in the K-12 curriculum. Teaches how to evaluate texts in various content areas or topics to identify the qualitative and quantitative features of a text and address reader and task considerations.

EDUC 5664
Instructional Implications of Literacy Development for Practitioners
3
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education

Focuses on emergent literacy development for students in grades K-12 and how that development is well-designed for appropriate literacy learning environments, experiences, and instructional interventions for emergent language learners. Covers the history, major perspectives, and theories about how students understand and develop literacy. Develops understandings of developmentally appropriate instruction, reading behaviors, and literacy development within the larger framework of the communicative arts, i.e., oracy, written expression, reading, spelling, handwriting, listening, the visual and performing arts, and the social community, i.e., family, socio-economic conditions, culture, ethnicity, language, etc.

EDUC 5665
Reading Comprehension Instruction for Practitioners
3
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education

Helps practicing teachers acquire knowledge and understanding of current theories and models that impact reading comprehension and apply that knowledge in instruction. Focuses on understanding reading comprehension, increasing the range, quality and complexity of reading materials used by students, and supporting student responses to text. Builds teachers' ability to help their students use texts efficiently and effectively to develop and express complex, critical thinking.

EDUC 5666
Effective Writing Instruction for Practitioners
3
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education

Examines theories, concepts, and methodologies that promote the development of strategic writers. Prepares teachers to provide research-based methods for teaching K-12 students to develop a range of writing skills and applications including how to compose opinion/argumentation, informational/expository, and narrative writing. Facilitates teachers' ability to assess K-12 student writing.

EDUC 5667
Science of Literacy I - Learning to Read
3
* Prerequisite(s): Utah Professional Educator License

Explores the difficulties that students face in learning to read and how teachers can use assessments to support student learning and differentiate. Teaches how phonological skills are developed, taught, and assessed. Builds a deep understanding of how students learn and why some students may struggle. Focuses on ways to differentiate instruction to meet the varying need of students. Requires practice and implementation in the classroom.

EDUC 5668
Science of Literacy II – Phonics/Spelling/Word Recognition
3
* Prerequisite(s): Utah Professional Educator License

Provides an overview of phonics and how to assess phonics and word recognition. Focuses on how letters and sounds are connected. Considers best practices to teach spelling and reading fluency. Builds a deeper understanding of how students learn and why some students may struggle. Empowers teachers to differentiate their instruction to meet the varying need of students in their classroom. Requires practice and implementation in the classroom.

EDUC 5669
Science of Literacy III – Oral Language/Vocabulary
3
* Prerequisite(s): Utah Professional Educator License

Focuses on language comprehension and vocabulary. Describes why each is important and which instructional strategies are effective. Explores ways to create a language-rich classroom environment, and plan effective comprehension instruction. Builds a deeper understanding of how students learn and why some students may struggle. Focuses on ways to differentiate instruction to meet the varying need of students. Requires practice and implementation in the classroom.

EDUC 5670
Basic Skills in the Arts
2
* Prerequisite(s): Previously earned Elementary Arts Endorsement

Encourages the development of a personal identity as an artist and teacher of the arts. Applies the philosophy of aesthetics to the exploration of the nature of art and personal artistic preferences. Teaches educators to develop and assess the cognitive, physical, social, and emotional needs and abilities of individual learners and meet those needs through arts instruction and experiences.
EDUC 5671
Teaching the Arts in the Elementary Classroom
2
* Prerequisite(s): EDUC 5670
Continues the development of a personal identity as an artist and teacher who uses the arts. Enables participants to construct and facilitate learning experiences in each art form based on National and State Core Art Standards. Teaches educators to develop and assess the cognitive, physical, social, and emotional needs and abilities of individual learners and meet those needs through arts instruction and experiences. Prepares participants to advocate for the arts by applying and describing how arts education aligns with effective educational theories.

EDUC 5672
Arts Integration Across the Curriculum
2
* Prerequisite(s): EDUC 5671
Guides the construction and facilitation of learning experiences in each art form based on National and State Core Art Standards. Facilitates learning experiences to develop and assess the cognitive, physical, social, and emotional needs and abilities of individual learners through the arts. Continues to develop participants as advocates for high quality arts education that aligns with effective educational theories. Encourages participants to apply the cultural and historical meaning of the arts to connect arts experiences with differing contexts and aspects of life. Introduces ways to construct, implement, and assess arts-integrated learning experiences.

EDUC 5673
Leadership in the Arts
2
* Prerequisite(s): EDUC 5672
Guides the development of arts exhibits, performances, informances, or explorations demonstrating student competency in the arts. Applies the philosophy of aesthetics to the exploration of the arts and personal preferences. Develops participants as advocates for high quality arts education that aligns with effective educational theories. Identifies and connects various programs and practices at district, region, state, and national levels to help participants promote and experience the arts, while meeting shared goals.

EDUC 5674
Seminar Capstone and Practicum
2
* Prerequisite(s): EDUC 5673
Examines the individual's personal identity as an artist, and as a teacher who uses the arts, to benefit themselves and others. Provides opportunities for participants to exhibit work and/or produce performances, informances, or explorations demonstrating student competency in the arts. Assists participants to advocate for the arts by applying and describing how arts education aligns with effective educational theories. Evaluates participant ability to apply the cultural and historical meaning of the arts to connect arts experiences with differing contexts and aspects of life. Requires participants to construct, implement, and assess arts-integrated learning experiences.

EDUC 5675
Performance and Excellence in the Arts
2
* Prerequisite(s): EDUC 5674
Provides opportunity for participants to share a personal identity as an artist, and as a teacher who uses the arts, to benefit themselves and others. Assesses participant ability to exhibit work and/or produce performances, informances, or explorations demonstrating student competency in the arts. Requires participants to advocate for the arts by applying and describing how arts education aligns with effective educational theories. Analyses participant's ability to apply the cultural and historical meaning of the arts to connect arts experiences with differing contexts and aspects of life. Assesses participant's ability to apply the arts, to benefit themselves and others. Evaluates participant's practice in identifying and connecting various programs and practices at district, region, state, and national levels to promote and experience the arts, while meeting shared goals.

EDUC 5677
Science of Literacy IV – Reading Comprehension and Writing
3
* Prerequisite(s): Utah Professional Educator License
Identifies effective comprehension strategies. Describes ways to guide comprehension with questioning. Explores the reading-writing connection to support students in learning foundational writing skills. Builds a deeper understanding of how students learn and why some students may struggle. Focuses on ways to differentiate instruction to meet the varying need of students. Requires practice and implementation in the classroom.

EDUC 5700
Foundations of Dual Language Immersion Education
3
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education
Presents a historical overview and the theoretical and research foundations for dual language and immersion education. Emphasizes the practical application of theory and research in immersion programs.

EDUC 5710
Instructional Strategies and Curriculum and Classroom Management for the Elementary Classroom
3
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education
Designed to acquaint secondary teachers seeking a K-12 Dual Language Immersion (DLI) endorsement with instructional strategies and classroom management for the elementary classroom. Focuses on helping students to understand the elementary curriculum and plan units of instruction, and to build a repertoire of teaching strategies, tasks, and resources for use in the elementary classroom. Requires 15 hours of field experience/practicum hours in a DLI classroom in addition to class time.

EDUC 5741
STEM for Teaching K-6 Science
3
* Prerequisite(s): Utah professional educator license
Focuses on STEM integration through the lens of science. Identifies and distinguishes STEM models as they examine, engage in, and implement three dimensions of science instruction, Disciplinary Core Ideas (DCIs), Science and Engineering Practices (SEPs), and Crosscutting concepts (CCCs), through the use of authentic phenomena. Teaches participants to apply pedagogical practices that help K-6 students develop the disciplinary literacy needed to authentically communicate in science and helps students develop the skills needed to integrate science with other disciplines. Instructs participants to model practices to build their capacity to create effective student-centered learning environments and instruction. Emphasizes authentic connections between science and technology, engineering design, and mathematics.
EDUC 5742
STEM for Teaching K-6 Technology and Engineering
3
* Prerequisite(s): Utah professional educator license

Focuses on STEM integration through the lens of engineering and technology. Teaches participants to identify and distinguish STEM models as they examine, engage in, and implement engineering design and the Science and Engineering Practices (SEPs) through the use of effective technological tools. Applies pedagogical practices that help K-6 students develop the disciplinary literacy needed to authentically communicate in engineering and helps students develop the skills needed to integrate the engineering design process with other disciplines. Models practices to build participant capacity to create effective student-centered learning environments and instruction. Emphasizes authentic connections with science and mathematics.

EDUC 574A
STEM for Teaching K-6 Mathematics
3
* Prerequisite(s): Utah professional teaching license.

Focuses on STEM integration through the lens of mathematics. Identifies and distinguishes STEM models as they examine, engage in, and implement mathematical concepts, Standards for Mathematics Practices (SMPs), and Effective Mathematics Teaching Practices through the use of rich mathematical tasks. Applies pedagogical practices that help K-6 students develop discourse skills needed to authentically communicate in mathematics and help students develop the skills needed to integrate mathematics with other disciplines. Models practices to build their participant capacity to create effective student-centered learning environments and instruction. Emphasizes authentic connections between mathematics and science, technology, and engineering design.

EDUC 5750
Energy in STEM for Elementary Teachers
3
* Prerequisite(s): Recommended: Education Majors or Licensed Educators

Provides teachers with a deep and useful understanding of energy and the nature of how students use concepts of energy to make sense of phenomena across life, earth, and physical science. Enhances teacher insights into: 1) how matter and energy interact, 2) the relationships of matter to forces and interactions within fields, and 3) pedagogical content knowledge around teaching and learning about force. Also connects knowledge of concepts of force to practices in technology, engineering, and mathematics.

EDUC 5760
Force in STEM for Elementary Teachers
3
* Prerequisite(s): Recommended: Education Majors or Licensed Educators

Provides teachers with a deep and useful understanding of force and the nature of how students use concepts of force to make sense of phenomena across life, earth, and physical science. Enhances teacher insights into: 1) how force, matter and energy interact, 2) the relationship of force to energy and interactions within fields, and 3) pedagogical content knowledge around teaching and learning about force. Also connects knowledge of concepts of force to practices in technology, engineering, and mathematics.

EDUC 5770
Matter in STEM for Elementary Teachers
3
* Prerequisite(s): Recommended: Education Majors or Licensed Educators

Provides teachers with a deep and useful understanding of matter and the nature of how students use concepts of matter to make sense of phenomena across life, earth, and physical science. This understanding enhances teacher insights into: 1) how matter and energy interact, 2) the relationships of matter to forces and interactions within fields, and 3) pedagogical content knowledge around teaching and learning about matter. Also connects knowledge of concepts of matter to practices in technology, engineering, and mathematics.

EDUC 5780
Nature of Science and Engineering
3
* Prerequisite(s): Recommended: Education Majors or Licensed Educators

Explores the nature of science using science and engineering principles, practices, and processes. Explores applications to Science, Technology, Engineering and Mathematics using learner-based pedagogy. Develops teaching practices to assist participants in educating K-6 students in selected Earth and Life Science Standards.

EDUC 5782
Systems in Science
3
* Prerequisite(s): EDUC 5780

Examines systems at various scales from the universe to the molecular level. Identifies systems as a crucial component to all science investigation and understanding. Teaches system components including matter, forces, and energy that cause phenomena to occur. Requires participants to develop and use models to represent systems and their interactions. Assists participants in analyzing student work to assess conceptual understanding and scientific literacy. Considers ways to promote effective and equitable science instruction both in personal practice and in the science education community.

EDUC 5783
Matter and Energy in Science
3
* Prerequisite(s): EDUC 5780 and EDUC 5782

Develops a conceptual understanding of energy and matter flows into, out of, and within systems through reading, discussion, and use of models. Analyzes examples of student models and critiques multiple assessments to prepare participants to enact phenomena-based, three-dimensional science instruction that supports the development of students’ conceptual understanding and scientific literacy related to energy and matter. Considers ways to promote effective and equitable science instruction both in personal practice and in the science education community.

EDUC 5784
Cause and Effect in Science
3
* Prerequisite(s): Previously earned professional educator license

Engages participants in experiences that support learning with and about scientific literacy. Deepens content knowledge, integrates authentic science sensemaking, integrates science conceptual ideas with classroom practice and engages in explicit and reflective discourse about science learning and science instruction.

EDUC 5785
Stability and Change in Science
3
* Prerequisite(s): EDUC 5780, EDUC 5782, EDUC 5783, EDUC 5784

Develops a conceptual understanding that natural systems are usually stable until changes occur from either natural or human caused (anthropogenic) events over time and/or scale. Demonstrates that stability and change are interconnected and one cannot be explained without the other. Teaches participants to construct explanations of how changes occur as natural systems interact. Teaches students to present arguments supported by evidence that change in systems occurs in differing temporal scales, spatial scales, and scales of magnitude.
EDUC 5786  
**Classroom Practice in Science**  
3  
* Prerequisite(s): EDUC 5780, EDUC 5782, EDUC 5783, EDUC 5784 and EDUC 5785

Provides a capstone to the Elementary Science Endorsement. Requires participants to demonstrate and put into practice all that they have learned through the ESE experience. Evaluates participants' ability to use the crosscutting concepts and disciplinary core ideas to support sensemaking, create and implement practices in their own classrooms to engage all students in authentic science learning. Requires participants to show evidence of collaboration with other educators to develop and analyze learning opportunities for students, and promote effective and equitable science instruction both in personal practice and in the science education community.

EDUC 5790  
**STEM Practices with a Focus on Technology and Problem-Based Learning**  
3  
* Prerequisite(s): Recommended: Education Majors or Licensed Educators

Engages participants in developing meaningful understandings of problem-based approaches to teaching, learning, and the integration of STEM practices across the curriculum using appropriate technology. Requires the development and creation of problem-based, hands-on experiences.

EDUC 5800  
**Cognition Education and Technology for Practitioners**  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education

Examines the increasingly pervasive role of electronic media in educating and socializing young students, especially as it affects the K-12 classroom. Explores the range of content available to these students, their families, and their classrooms and reviews research on the role of media in shaping individual identity and affecting school performance; analyzes public policies that affect teachers and students.

EDUC 5810  
**Instruction Curriculum & Educational Leadership in the Digital Age for Practitioners**  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education

Examines issues surrounding the use of technology in curricular and instructional design, especially in designing coursework for an online learning environment. Requires students to incorporate appropriate digital media formats to create an online learning environment. Addresses issues of school leadership, as participants may become mentors in the area of educational technology.

EDUC 5820  
**Designing and Producing Media for Instruction for Practitioners**  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education

Helps students produce educational media materials for their particular classroom. Requires students to collaborate with others to design, produce, test, and revise a unique project tailored for their instructional practice. Requires students to use a variety of digital tools to conceptualize, design, fashion, and evaluate media projects.

EDUC 5830  
**Digital Models of Instruction for Practitioners**  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education

Focuses on using instructional design and Web page design principles for specific classroom populations. Examines the best instructional use of online options, including flipped and hybrid course design, and gaming. Requires completion of an instructional design plan for an instructional unit of the participants' choice for a learner group of their choice.

EDUC 5840  
**Universal Design for Learning for Practitioners**  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education

Focuses on universal design for learning (UDL) that differentiates curricula and learning environments for a wide range of student abilities and disabilities. Requires students to learn to apply the UDL approach in designing differentiated learning experiences for their classrooms using educational technology.

EDUC 5850  
**Digital Course Design Capstone for Practitioners**  
3  
* Prerequisite(s): Professional educator license or permission of the Dean of the School of Education

Teaches students to design and create media for content-specific units of instruction. Requires students to use technology specific to a given discipline, and to incorporate instructional design and digital media to create an online unit of study.

EDUC 5880  
**Cognition, Education, and Technology**  
3  
* Prerequisite(s): Admission to Graduate Status, Admission to the School of Education Masters Degree Program, Or permission of the Dean

Examines the increasingly pervasive role of electronic media in educating and socializing young students. Explores the range of content available to these students and their families; documents the developing child's patterns of use and understanding of media; examines theories and methods for assessing media effects; reviews research on the role of media in shaping individual identity and responses to social issues; and analyzes public policies that affect teachers and students.

EDUC 6081  
**Instruction, Curriculum and Educational Leadership in the Digital Age**  
3  
* Prerequisite(s): Admission to Graduate Status, Admission to the School of Education Masters Degree Program, Or permission of the Dean

Examines issues surrounding teachers and the use of technology in curricular and instructional design. Emphasizes designing coursework for an online learning environment. Explores the history and models of instructional design and teaches incorporation of appropriate digital media formats to create an online learning environment. Introduces the integrated nature of Technological Pedagogical Content Knowledge (TPACK) and the National Educational Technology Standards (NETS) as frameworks for identifying and applying the knowledge needed to teach and assess student learning with technology. Addresses issues of leadership, as students may become mentors in the area of educational technology.

EDUC 6082  
**Equitable Technology Integration for Practitioners**  
3  
* Prerequisite(s): Admission to Graduate Status, Admission to the School of Education Masters Degree Program, or permission of the graduate program director

Integrates information and communication technologies into instruction and prepares teachers to use technologies to differentiate their instruction to meet the needs of all students. Uses technology to revitalize pedagogy and provides teachers with the skills to develop lesson activities that empower students to make meaningful connections and develop 21st Century skills.
Course Descriptions

EDUC 6083
Digital Models of Instruction
3
* Prerequisite(s): Admission to Graduate Status, Admission to the School of Education Masters Degree Program, Or permission of the Dean
Focuses on using instructional design and Web page design principles. Examines the best instructional use of online options, including flipped and hybrid course design, and gaming. Requires completion of an instructional design plan for an instructional unit of the participants’ choice for a learner group of their choice.

EDUC 6085
Digital Course Design Capstone
3
* Prerequisite(s): Admission to Graduate Status, Admission to the School of Education Masters Degree Program, Or permission of the Dean
Teaches students to design and create media for content-specific units of instruction. Covers the use of technology specific to a given discipline, and teaches how to incorporate instructional design and digital media to create an online unit of study.

EDUC 6100
Research Methodology
3
* Prerequisite(s): Matriculation into a School of Education graduate program or matriculation into Master of Science-Mathematics, M.S., program, or approval of graduate program director.
Introduces the principal methodologies used in research in education. Presents basic information about the purposes of research, the scientific method, and basic qualitative and quantitative research. Identifies methods for locating, reading, interpreting and using research reports and in applying measurement issues and research methods to classroom problems. Investigates teacher research practices and ways it can be used to study teaching and teacher education.

EDUC 6110
Applied Statistics for Education
3
* Prerequisite(s): Acceptance into a School of Education graduate program or acceptance into Master of Science-Mathematics, M.S. program, or approval of graduate program director.
Introduces elementary statistics in educational settings and includes descriptive statistics, sampling, central tendency, and inferential methods. Emphasizes reading, understanding and evaluating statistics in research reports.

EDUC 6200
Masters Project
3
* Prerequisite(s): Matriculation into a School of Education graduate program or matriculation into Master of Science-Mathematics, M.S., program, or approval of graduate program director
Provides working knowledge of action research methods in the public schools. Sets the standards for the professional M.Ed. action research-based project. Utilizes APA guidelines. Establishes techniques and strategies for successful project completion.

EDUC 6201
Teacher Performance Assessment Project
2
* Prerequisite(s): Admission to Secondary Teaching, Graduate Certificate Program
* Corequisite(s): EDUC 6203
Introduces the teaching and learning cycle: planning, instruction, and assessment. Assists students in completing an authentic assessment tool that shows how they develop and evaluate student learning. Documents authentic practices from the student's teaching experience that address planning, instruction, assessment, analyzing teaching, and academic language to reveal the impact of a candidate's teaching performance on student learning. Graduate fee of $300 applies.

EDUC 6202
Classroom Management Practicum
3
* Prerequisite(s): Admission to Secondary Teaching, Graduate Certificate Program
Provides first-hand, supervised, clinical experience in observing and implementing effective class management practices.

EDUC 6203
Student Teaching Graduate Licensure
6
* Prerequisite(s): Admission to Secondary Teaching, Graduate Certificate Program
* Corequisite(s): EDUC 6201
Includes 400 hours of student teaching experience in a secondary classroom, grades 7-12. Includes application of knowledge, skills, and attitudes derived in previous course work and program experience. Is required for students to be recommended for a secondary education license from the Utah State Office of Education. May be Graded Credit/No Credit. Graduate fee of $200 applies.

EDUC 6210
Masters Project School Counseling Internship
3
* Prerequisite(s): Matriculation into School of Education graduate program or approval of graduate program director and Completion of School Counseling Practicum
Provides Internship students with weekly interaction with supervisors that averages one hour per week of individual and/or triadic supervision throughout the internship, provided by (1) the site supervisor, (2) counselor education program faculty, or (3) a student supervisor who is under the supervision of a counselor education program faculty member. Engages internship students in an average of 1½ hours per week of group supervision on a regular schedule throughout the internship. Provides group supervision by a counselor education program faculty member or a student supervisor who is the supervision of a counselor education program faculty member. Requires students to complete 300 of the 600 required clock hours of supervised counseling internship in roles and settings with clients relevant to their specialty area.

EDUC 6300
Curriculum Design
3
* Prerequisite(s): Admission to Graduate Status, Admission to the School of Education Masters Degree Program, Or permission of the Dean
Provides a foundation in curriculum theory and practice. Introduces instructional design theories principles and models. Outlines the historical development, current processes and practices of curriculum development, instructional design, implementation, and assessment. Investigates research and theory about educational contexts, motivation, curriculum, learning, and development as they relate to models of instruction. Examines applications and processes of curriculum decision making and the impact of national standards for content areas to curriculum design and development in classroom and district settings.

EDUC 6311
Introduction to Exceptional Students
3
* Prerequisite(s): Admission to School of Education Graduate Program or permission of the Dean
Provides a comprehensive introduction of characteristics of children and youth with disabilities and topics related to models of service delivery, documentation procedures, and legal/ethical issues. Includes historical factors, legislation, etiology, characteristics, needs, educational strategies, including existing and emerging technologies, assessment, and support services for individuals with disabilities ranging from mild, moderate to severe levels of varying disabilities. Studies the impact of disabilities on academic and social/emotional performances.
EDUC 6320  
21st Century Instruction and Assessment  
3  
* Prerequisite(s): Matriculation into a School of Education graduate program or matriculation into Master of Science-Mathematics, M.S., program, or approval of graduate program director  
Focuses on instructional design and delivery incorporating 21st century learning design and assessment. Introduces a range of instructional models and assessment tools. Requires planning and implementing instruction and assessment using several selected models.

EDUC 6330  
Diversity and Differentiation in the Classroom  
3  
* Prerequisite(s): Acceptance into a School of Education graduate program or acceptance into Master of Science-Mathematics, M.S. program, or approval of graduate program director.  
Provides an in-depth understanding of differentiated instructional design and delivery. Focuses on planning and implementing instruction for a diverse classroom community.

EDUC 6340  
English as a Second Language Methods  
3  
* Prerequisite(s): Admission to Graduate Status Admission to the School of Education Masters Degree Program Or permission of the Dean or the instructor  
Prepares teachers to teach English as a second language in U.S. public schools. Includes both theoretical and applied aspects of second language learning and teaching. Provides general and special educators and second language specialists techniques, activities, strategies and resources to plan instruction for English language learners (ELLs). Emphasizes oral language development, literacy and content-area instruction for teaching K-12 students.

EDUC 6350  
Theories of Second Language Acquisition  
3  
* Prerequisite(s): Admission to Graduate Status Admission to the School of Education Masters Degree Program Or permission of the Dean or the instructor  
Describes the variables that interact in the second language learning process, including linguistic, cognitive, social, cultural, and political factors. Examines learning a second language as both an individual and social experience. Examines the linguistic, cognitive, psychological, and emotional elements of learning a second language. Identifies the interactions between the individual and the contexts in which s/he interacts and then attempts to understand how they work together to foster or inhibit successful second language learning and acquisition.

EDUC 6360  
Multicultural Education  
3  
* Prerequisite(s): Admission to Graduate Status Admission to the School of Education Masters Degree Program Or permission of the Dean or the instructor  
Identifies the connections between language, culture, and identity. Examines multicultural education through a focus on the historical, sociological, and philosophical foundations of education. Emphasizes the role of ethnicity in the development of the United States and its education system. Outlines multicultural / multilingual curricula with a special focus on culturally/ linguistically-responsive instruction and assessment techniques.

EDUC 6370  
Assessment of Second Language Learners  
3  
* Prerequisite(s): Admission to Graduate Status Admission to the School of Education Masters Degree Program Or permission of the Dean or the instructor  
Examines theory, methods, and practice in the testing of bilingual students at both the classroom level and the large-scale level in the context of school accountability. Focuses on assessment of language proficiency in English language learners (ELL) and the assessment of academic achievement of bilingual students in specific content areas. Develops and reviews tasks (test items), response formats, scoring systems, and test administration procedures as critical to attaining validity and fairness. Examines testing major current testing policies for linguistic minority students. Practicum required.

EDUC 6380  
Literacy and Linguistics in English as a Second Language  
3  
* Prerequisite(s): Admission to Graduate Status Admission to the School of Education Masters Degree Program Or permission of the Dean or the instructor  
Focuses on how teachers can best meet the literacy and language needs of students from a variety of cultural, socioeconomic and language groups. Explores frameworks for providing high-quality literacy instruction to all students. Analyzes classrooms and schools that have been successful in accomplishing this. Examines ethnic identities and personal conceptions of diversity, and how these may impact instructional decisions. Analyzes students and families represented in their classrooms. Discusses ways to build bridges between home and school cultures.

EDUC 6390  
Family and Community Involvement  
3  
* Prerequisite(s): Admission to Graduate Status Admission to the School of Education Masters Degree Program Or permission of the Dean or the instructor  
Provides strategies for facilitating community participation in the education of minorities. Examines the role of the teacher in the classroom and community with the intention of developing insight and understanding of how the teacher's role in these areas impacts the adjustment of adolescents during grades 7-12. Considers models and methods for facilitating positive relationships. Studies the techniques of family-school collaboration as well as constructive methods of evaluation. Practicum required.

EDUC 6400  
Contemporary Issues in Teacher Leadership  
3  
* Prerequisite(s): Admission to Graduate Status Admission to the School of Education Masters Degree Program Or permission of the Dean  
Introduces students to critical concepts about contemporary teacher leadership. Examines current issues and strategies impacting teacher leadership. Analyzes contemporary theories of learning and teaching from personal and public perspectives and how those theories converge with professional practice in classrooms and schools. Examines the philosophical foundations of curriculum and instruction in American schools, the social and cultural conditions that influence education, and new concepts in education curriculum materials, and methods of instruction from the perspective of teacher leadership.

EDUC 6410  
Contemporary Issues  
3  
* Prerequisite(s): Admission to Graduate Status Admission to the School of Education Masters Degree Program Or permission of the Dean  
Presents contemporary theories of learning and teaching from personal and public perspectives and how those theories converge with professional practice in classrooms and schools. Provides a study of the philosophical foundations of curriculum and instruction in American schools, the social and cultural conditions that influence education, and new concepts in education curriculum materials, and methods of instruction.
Course Descriptions

EDUC 6411  Instructional Coaching  3
* Prerequisite(s): Acceptance into the Teacher Leader or Earned Endorsement emphasis in the M.Ed. program, or permission of the program director.

Ensures that those obtaining the Utah State Board of Education (USBE) Instructional Coaching endorsement are prepared with the requisite, foundational skill-set to effectively coach their fellow educators’ practice to improve student outcomes and overall educator effectiveness using the USBE Coaching Framework. Teaches the USBE Coaching Framework to ensure a level of consistency statewide among all institutions providing courses for the Instructional Coaching Endorsement.

EDUC 6412  Adult Learning--Theory and Practice  3
* Prerequisite(s): Acceptance into the UVU SOE master of education program.

Builds theoretical background knowledge and skills required for teaching adults in professional development or coaching, mentoring settings. Ensures that those pursuing and obtaining the Utah State Board of Education Instructional Coaching endorsement are prepared with the requisite, foundational skill-set to effectively coach their fellow educators’ practice to improve student outcomes and overall educator effectiveness.

EDUC 6500  Teaching K-6 Numbers and Operations  3
* Prerequisite(s): Admission to School of Education graduate program; professional educator license; or permission of the Dean of the School of Education.

Designed for K-6 teachers. Covers the content of Number and Operations to develop a comprehensive understanding of our number system and relate its structure to computation, arithmetic, algebra, and problem solving. Includes number, number sense, computation, and estimation through a coordinated program of activities that develop number concepts and skills. Special attention in this course will be given to how children learn and connect the fundamental concepts of geometry and measurement, children’s developmental trajectories in this mathematical content, how children construct their understanding of various geometric concepts, children’s typical error patterns, problem solving strategies, interpreting and assessing students’ work and learning, and integration of the NCTM process standards and the Utah Intended Learning Outcomes (ILOs).

EDUC 6510  Teaching K-6 Rational Numbers and Proportional Reasoning  3
* Prerequisite(s): Admission to School of Education graduate program, professional educator license; EDUC 6500, or permission of the Dean of the School of Education.

Provides practicing teachers a deeper understanding of rational numbers, operations with rational numbers, proportionality, and instructional strategies to facilitate the instruction of this content for elementary students.

EDUC 6520  Teaching K-6 Algebraic Reasoning  3
* Prerequisite(s): Admission to School of Education graduate programs; professional educator license; or permission of the Dean of the School of Education.

Provides practicing teachers a deeper understanding of algebraic expressions, equations, functions, real numbers, and instructional strategies to facilitate the instruction of this content for elementary students.

EDUC 6530  Teaching K-6 Geometry and Measurement  3
* Prerequisite(s): Acceptance to graduate studies in the School of Education; professional educator license, or permission of the Dean of the School of Education.

Provides practicing teachers a deeper understanding of the geometry and measurement content that exists in the state core and instructional strategies to facilitate the instruction of this content. Special attention in this course will be given to how children learn and connect the fundamental concepts of geometry and measurement, children's developmental trajectories in this mathematical content, how children construct their understanding of various geometric concepts, children's typical error patterns, problem solving strategies, interpreting and assessing students' work and learning, and integration of the NCTM process standards and the Utah Intended Learning Outcomes (ILOs).

EDUC 6540  Teaching K-6 Data Analysis and Problem Solving  3
* Prerequisite(s): Professional educator license; admission to graduate level in the School of Education; or permission of the Dean of the School of Education.

Develops a firm problem-solving foundation. Using skills and strategies applied in mathematical contexts practicing teachers will learn to think, work with others, present solutions orally to the whole class, and write up detailed solutions. Provides practicing teachers a deeper understanding of probability and data representation and analysis. Special attention in this course will be given to children's typical error patterns, problem solving strategies, interpreting and assessing students' work and learning, and integration of the NCTM process standards and the Utah Intended Learning Outcomes (ILOs).

EDUC 6550  Teaching K-6 Assessment and Intervention  3
* Prerequisite(s): Professional educator license; admission to graduate level in the School of Education; or permission of the Dean of the School of Education.

Provides practicing teachers a deeper understanding of the various types of assessment and their appropriate use for guiding instruction, intervention, and evaluation of student learning of mathematics content. Teaches how to screen students for mathematics problems or potential mathematics problems, diagnose students' mathematics strengths and needs, and monitor students' progress to ensure students will make optimal progress in mathematics. Teaches procedures for managing and analyzing assessment data.

EDUC 6600  High Ability Education  3
* Prerequisite(s): Admission into the Master of Education program

Prepares teachers of GT learners to better understand the field as an evolving and changing discipline influenced by history, philosophies, research-based principles and theories, relevant laws and policies, cultural and historical points of view, and human issues that influence professional practice, including assessment, instructional planning, delivery, and program evaluation. Explores characteristics of gifted individuals with emphasis on identifying needs and a general overview of possible services for gifted learners. Prepares teachers to advocate for GT students and their programs in schools and school districts. Emphasizes discussing and finding applications from current research in gifted, talented, and advanced education.
**EDUC 6610 Social and Emotional Needs of High Ability Learners**
3
*Prerequisite(s): Admission to the Master of Education program

Explores current research and material relevant to the social and emotional issues that may arise for gifted and talented students. Focuses on current research through discussions, projects, and classroom observation. Develops a deeper understanding of social and emotional issues that students with gifts and talents experience in K-12 classrooms. Applies findings from current and seminal literature in the field. Includes classroom observations of connections between cognitive development and affective domain. Includes 15 hours of field experience/practicum in addition to class time.

**EDUC 6620 Identification/Evaluation of High Ability Learners**
3
*Prerequisite(s): Admission to Master of Education program

Prepares teachers to use the results of a variety of assessment tools for both identification and learning progress decisions. Defines the processes of identification, legal policies, and ethical principles of measurement and assessment related to referral, eligibility, program planning, instruction, and placement. Includes current and historic documents and research to contrast ideas of determining “giftedness” throughout history with modern conceptions underlying gifted and talented education. Includes 15 field experience/practicum hours in addition to class time.

**EDUC 6630 Theory into Practice for High Ability Education**
3
*Prerequisite(s): Admission to Master of Education program

Prepares teachers to understand societal influences on the development of curricula. Focuses on long- and short-range units of instruction anchored in both general and special curricula for gifted and talented students. Addresses individual’s abilities and needs, the learning environment, and cultural and linguistic factors. Includes current research-based classroom practices.

**EDUC 6635 Methods and Materials for High Ability Learners**
3
*Prerequisite(s): Admission to Master of Education program

Requires teacher-participants to locate, create, and adapt curricular materials and methods of instruction needed to implement differentiated instruction for gifted and talented learners. Encourages creative problem-solving for a variety of student abilities and needs, the learning environment, and cultural and linguistic factors that may influence instruction. Requires application of current findings from the literature to the evaluation of methods and materials for gifted and talented instruction.

**EDUC 6640 High Ability Curriculum and Instruction in the Content Areas**
3
*Prerequisite(s): Admission to Master of Education program

Prepares teachers of gifted and talented students with the selection, adaptation, creation, and implementation of differentiated instructional models and strategies, especially those related to fostering creativity. Evaluates current research on outcomes from instruction based on creative processes that are designed to foster creative, critical, and analytic thinking. Requires 15 field experience/practicum hours in addition to class time.

**EDUC 6660 Reading Assessments and Instructional Interventions**
3
*Prerequisite(s): Admission to Graduate Status, Admission to the School of Education Masters Degree Program, Or permission of the Dean

Focuses on curriculum-based measurement, the assessment/instructional cycle, and how to use assessment data to design and implement instructional interventions to increase students' reading achievement. Studies the four federal assessment categories: screening, progress monitoring, diagnosis, and outcomes, as well as assessment instruments within the various categories and the 3-tiered model. Focuses on building students' oral language and background knowledge, teaching alphabet knowledge and phonemic awareness, teaching students to use and recognize and use common phonic spelling patterns, building vocabulary, increasing fluency, teaching students to apply comprehension strategies, and fostering students reading engagement. Describes reading assessments and interventions that are appropriate at the primary, intermediate, and secondary levels.

**EDUC 6661 Literacy and Cognition of Reading**
3
*Prerequisite(s): Admission to Graduate Status, Admission to the School of Education Masters Degree Program, Or permission of the Dean

Provides foundational knowledge about literacy instruction, including an historical perspective on reading instruction, an introduction to theories and models of literacy acquisition, a study of language systems and language acquisition, and theories related to the literacy development of people across the lifespan and their instructional implications. Includes the debates and various stances of reading researchers, and the instructional directives that grew out of the research.

**EDUC 6662 Early Literacy Instruction**
3
*Prerequisite(s): Admission to Graduate Status, Admission to the School of Education Masters Degree Program, Or permission of the Dean

Designed to help students understand the history, major perspectives and theories about how young children understand literacy. Focuses on developmentally appropriate instruction and the value of play relating to oral and print literacy in kindergarten and the primary grades. Examines literacy development within the larger framework of the communicative arts, i.e., oracy, written expression, reading, spelling, handwriting, listening, the visual and performing arts, and the social community, i.e., family, socioeconomic conditions, culture, ethnicity, language, etc.

**EDUC 6663 Content Area Reading**
3
*Prerequisite(s): Admission to Graduate Status, Admission to the School of Education Masters Degree Program, Or permission of the Dean

Designed to help practicing teachers develop an in-depth understanding of the research findings, issues, principles and practices related to exemplary, research-based reading and writing instruction in the content areas. Covers the use of textbooks and nonfiction reading materials for young students who are beginning readers and writers. Focuses on how to assist all learners to read, understand and learn from nonfiction reading materials. Covers assisting students at all grade levels in their reading of materials and writing of text related to science, social studies, history, math art, music, etc.
EDUC 6664  
Adolescent Literacy  
3  
* Prerequisite(s): Admission to Graduate Status, Admission to the School of Education Masters Degree Program, Or permission of the Dean  
Provides practicing secondary teachers with concepts, models, and strategies to support adolescent literacy instruction. Familiarizes teachers with practical constructs for understanding adolescent literacy, its importance, how it can be fostered and employed for student learning, how the challenges of adolescent literacy differ from the challenges of early reading instruction, and how systematic interventions can help remediate chronic failure in literacy and learning. Teaches effective literacy improvement practices that can be realistically implemented in the context of secondary teachers’ many demands.

EDUC 6665  
Reading Comprehension Instruction  
3  
* Prerequisite(s): Admission to Graduate Status, Admission to the School of Education Masters Degree Program, Or permission of the Dean  
Focuses on reading comprehension instruction as the essence of reading. Emphasizes the theoretical foundations that support comprehension such as schema theory and the construction-integration theory. Includes the following five research-supported strategies: activating prior knowledge, questioning, analyzing text structure, creating mental or visual images and summarizing. Teaches how to offer explicit teacher-led comprehension strategy instruction that will lead to helping their students coordinate a set of comprehension strategies. Teaches how to help students construct meaning through rich discussions and interactions around a variety of text structures and genres. Prepares teachers to provide scaffolded support including demonstrations, pictures, diagrams, and collaboration with other students.

EDUC 6666  
Effective Writing Instruction  
3  
* Prerequisite(s): Admission to Graduate Status, Admission to the School of Education Masters Degree Program, Or permission of the Dean  
Focuses on using effective strategies for teaching writing across the curriculum and for diverse populations. Teaches application of the writing process, writing workshop, and interactive writing procedures in the classroom. Covers the development of orthographic knowledge and how to assess student work using the Qualitative Spelling Inventory and the Six-Trait Writing Model.

EDUC 6750  
Energy in Elementary STEM Education  
3  
* Prerequisite(s): Admission to Graduate Status; Admission to the School of Education Masters Degree Program; Or permission of the Dean or the instructor  
Prepares teachers to teach English as a second language in U.S. public schools. Includes both theoretical and applied aspects of second language learning and teaching. Provides general and special educators and second language specialists techniques, activities, strategies and resources to plan instruction for English language learners (ELLs). Emphasizes oral language development, literacy and content-area instruction for teaching K-12 students.

EDUC 6760  
Force in Elementary STEM Education  
3  
Provides teachers with a deep and useful understanding of force and the nature of how students use concepts of force to make sense of phenomena across life, earth, and physical science. Explores the theory of and enhances teacher insights into: 1) how force, matter and energy interact, 2) the relationship of force to energy and interactions within fields, and 3) pedagogical content knowledge around teaching and learning about force. Also connects knowledge of concepts of force to practices in technology, engineering and mathematics, and engages participants in evaluating technology appropriate to elementary STEM instruction. Requires participants to make connections between current learning theories and methods of STEM instruction.

EDUC 6770  
Matter in Elementary STEM Education  
3  
Models effective and engaging instructional practices for teaching about matter in the elementary classroom, and connects knowledge of concepts of matter to practices in technology, engineering and mathematics. Requires participants to design and implement STEM lessons that will help elementary students use content knowledge about matter to make sense of phenomena across life, earth, and physical science. Designed to help participants gain insights into: 1) how matter and energy interact, 2) the relationships of matter to forces and interactions within fields, and 3) pedagogical content knowledge for teaching about matter. Involves participants in active instructional strategies and pedagogical theories. Focuses on designing learning environments that support collaborative learning and engagement in STEM lessons.

EDUC 6780  
Science and Engineering in Elementary STEM Education  
3  
Explores the nature of science using science and engineering principles, practices, and processes. Investigates applications of learning theory to Science, Technology, Engineering and Mathematics using problem-based learning experiences. Requires participants to develop teaching practices to assist them in integrating engineering practices across disciplines as they apply Utah Science Standards to elementary STEM instruction.

EDUC 6790  
Technology and Problem-Based Learning in Elementary STEM Education  
3  
Engages participants in developing meaningful understandings of problem-based approaches to teaching, learning, and the integration of STEM practices across the curriculum using appropriate technology. Requires participants to demonstrate their skills through the development of problem-based, hands-on learning experiences for elementary students, based on findings from current research and theory of cognitive development. Critically evaluates technology for STEM education, based on current national guidelines.

EDUC 691R  
Project I  
1  
* Prerequisite(s): EDUC 6200 and Matriculation into a School of Education graduate program or matriculation into Master of Science-Mathematics, M.S., program, or approval of graduate program director  
Provides instruction regarding writing a formal classroom-based research project proposal to present to the School of Education Graduate Board. Supports students in obtaining human subject clearance. May be repeated for a maximum of 2 credits toward graduation. Course will be graded credit/no credit.

EDUC 692R  
Project II  
1  
* Prerequisite(s): EDUC 691R and Matriculation into a School of Education graduate program or matriculation into Master of Science-Mathematics, M.S., program, or approval of graduate program director  
Provides support regarding Implementation of the classroom-based applied research project. Course will be graded credit/no credit. May be repeated for a maximum of 2 credits toward graduation.
EDUC 693R
Project III
1
* Prerequisite(s): Matriculation into a School of Education graduate program or matriculation into Master of Science-Mathematics, M.S., program, or approval of graduate program director
* Prerequisite(s) or Corequisite(s): EDUC 691R and EDUC 692R
Provides support regarding completion of a classroom-based applied research project and acceptance of the classroom-based applied project by the School of Education graduate Board. Course will be graded credit/no credit. May be repeated for a maximum of 9 credits toward graduation.

EDUC 694R
Directed Individual Study
.5 to 3
* Prerequisite(s): Admission to Graduate Status; Admission to the School of Education Masters Degree Program or permission of the Dean
Provides individual instruction for Master of Education students wishing to further their understanding of the field of education. Focuses on individual research regarding instructional methods and/or assessment. May be repeated for a maximum of 6 credits. Graded Credit/No Credit.

Eng Graphics/Design Tech (EGDT)

EGDT 1000
Introduction to Engineering Drawing and Technical Design
2
Covers basic sketching, instruments and their use, lettering, geometric construction, dimensioning, multi-view drawings, and section views, using CAD (computer-aided drafting) and traditional hand tools. Teaches introductory skills required in several first-year drafting technology courses. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 1010
Electrical Drafting and Design
3
* Prerequisite(s): EGDT 1040 with a grade of C- or higher
Introduces several types of electrical drawings such as Block, Connection, Logic, Schematic, Wiring, and Panel Diagrams. Covers basic DC theory, electricity and electrical terms. Includes the principles of Ohm’s law, Watt’s law, Logic Truth Tables, Series and Parallel Circuits, and Printed Circuit Board Design. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 1020
3D Architectural Modeling
3
Utilizes a Building Information Modeling system (BIM) to design 3D architectural models. Covers 3D modeling design theory, parametric modeling methods, generation of residential and commercial construction plans and details, building components and systems, and manipulation of model information. May be delivered hybrid and/or online. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 1040
Fundamentals of Technical Engineering Drawing
3
Introduces fundamental technical engineering drawings, practices, and standards used by various engineering disciplines. Provides basic sketching, computer-aided drafting (CAD) tools, geometric construction, drawing layout, standard dimensioning, multi-view drawings, sectioning, plotting, checking, correcting, and other CAD and drafting skills. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 1050
Intro to 3D Printing and Fabrication
3
Introduces the history of design and fabrication. Explores how design and fabrication applies to, affects, and connects various fields, environments, cultures, and workplaces. Teaches basic design and fabrication competencies through analyzing and solving real-world problems using current technology. Encourages an appreciation for the evolution of design and fabrication and its application in diverse fields of academia and industry. Investigates the possibilities of new emerging technologies in these fields.

EGDT 1060
MicroStation Infrastructure Design
3
Teaches the MicroStation Open Roads drafting software system used to draw and plot various types of infrastructure projects. Demonstrates civil design skills needed in an infrastructure design workflow for a typical UDOT or civil engineering transportation project. Includes Digital Terrain Models (DTM’s), horizontal and vertical alignments, plan and profiles, grading design, and utilities/piping design and drafting. Focusses on the development of a civil engineering infrastructure plan set for a typical state highway or freeway. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 1070
3 Dimensional Modeling Inventor
3
Teaches basic 3D computer modeling course which emphasizes the development of 3D machine parts, assemblies, and drawings in a constraint-based modeling environment using AutoDesk Inventor. Emphasizes the feature based design process, which simulates actual manufacturing processes with 2D sketching tools and with 3D modeling tools including extrusions, revolutions, sweeps, lofts, coils, shells, placed features, patterns, and many others. Also teaches creation of basic multi-part assemblies, constraint-driven assembly animation, and generation of detailed production drawings. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 1071
3 Dimensional Modeling–Solidworks
3
Teaches basic 3D computer modeling, which emphasizes the development of 3D machine parts, assemblies, and drawings in a constraint-based modeling environment using Solidworks. Emphasizes the feature based design process, which simulates actual manufacturing processes with 2D sketching tools and with 3D modeling tools including extrusions, revolutions, sweeps, lofts, coils, shells, placed features, patterns, and many others. Also teaches creation of basic multi-part assemblies, constraint-driven assembly animation, and generation of detailed production drawings. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 1090
Introduction to Architectural Drafting and Design
2
Covers basic procedures used in the development of residential plans. Includes architectural drafting standards, symbols, and techniques. Uses lectures and text reading assignments related to the drawings and worksheets. Introduces students to the architectural profession and related fields. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 1100
Architectural Drafting and Design
3
* Prerequisite(s): EGDT 1020 with a grade of B- or higher
Covers procedures used in developing a complete set of architectural residential plans. Includes architectural drafting standards and code requirements. Reinforces math skills using dimensioning and estimating exercises. Utilizes lectures and text reading assignments with related worksheets and drawings. Software fee of $18 applies. Lab access fee of $45 for computers applies.
Course Descriptions

EGDT 1200
Mechanical Drafting and Design
3
* Prerequisite(s): EGDT 1070 or EGDT 1071 or EGDT 1040, with a grade of C- or higher
Requires previous knowledge of CAD software including geometric construction, linework, and dimensioning. Focuses on the design and documentation of mechanical components with proper tolerancing using design layouts, the Machine's Handbook, and manufacturer's reference materials including retainer rings, bearings, oils seals, and other hardware. Details the form, fit, and function of mechanical components using the ASME Y14.5 Standard. Introduces geometric dimensioning and tolerancing in detailing the components. Includes precision dimensioning, gear design, shaft design, surface finish, materials, threaded holes, threaded fasteners, manufacturing methods, and machining processes and applications. Course fee of $10 applies. Software fee of $18 applies. Lab access fee of $45 applies.

EGDT 1300
Structural Drafting and Design
3
* Prerequisite(s): EGDT 1040 with a grade of C- or higher
Covers fundamentals of structural design. Studies structural steel detailing of beams, columns, braces, templates, marking and numbering systems, bill of materials, welding symbols, and erection drawings to AISC standards. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 1400
Surveying Applications and Field Techniques I
3
For people seeking a surveyor's license, civil engineering majors, Engineering Graphics and Design Technology majors, Construction Management majors, and anyone else wishing to learn fundamentals of surveying. Covers history of surveying, mathematics, field notes, measurement and computations, basic surveying instruments and equipment, leveling procedures, bearing computations, topography, mathematical traverse closures, area computations, and basic property surveying. Completers should be able to work in the job-entry phase of the surveying field. Course fee of $12 for materials applies. Software fee of $18 applies. Lab access fee of $45 computers applies.

EGDT 1600
Technical Math Algebra
3
* Prerequisite(s): MAT 0920 or equivalent with "C-" grade or better or appropriate test scores
Cover the basic principles of algebra, geometry, and trigonometry as they relate to problem solving on the job. Includes solving equations, percent, proportion, variation, calculator operations, measurements, formula rearrangement, functions and graphs, and solving right and oblique triangles.

EGDT 1610
Technical Math Geometry Trig
3
* Prerequisite(s): EGDT 1600 or equivalent course with a grade of C- or higher
Covers more advanced principles of algebra, geometry, and trigonometry as they relate to problem solving on the job. Includes systems of equations, powers and roots, trigonometry functions, vectors, polynomials, quadratic equations, exponents and radicals, and circle concepts.

EGDT 1720
Architectural Rendering
3
Discusses how Architectural Rendering plays an important role in the way we view and present the world around us. Includes: elements in the physical and natural world, as well as the influences human cultures have on our society through the construction of buildings, structures, and other works of man. Introduces the necessary skills and practices required in architectural rendering theory and presentation. Develops skills in perspective, layout, shading, color theory and presentations of interior and exterior architectural rendering projects. Course fee of $10 applies.

EGDT 2010
Advanced Electrical CAD
2
* Prerequisite(s): EGDT 1010 and EGDT 1040, with "C-" grade or higher
For second year Drafting Technology majors. Concentrates on the completion of electrical-electronic diagrams using CAD procedures. Those layout procedures studied will include logic and schematic diagrams. Printed wiring board and AC motor control wiring diagram layout from reference schematics will also be covered. Includes a basic introduction to AC electrical theory including inductance and capacitance and their relationship to AC motors and motor controls. Completers should have entry-level skills for an electrical-electronic drafting position. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 2020
Descriptive Geometry
3
* Prerequisite(s): EGDT 1040 with a grade of C- or higher
Covers advanced orthographic projection principles used to render views of objects from any conceivable direction. Explains the creation of views needed to solve problems graphically rather than mathematically. Includes true length and angle, true size and shape, clearance, bearing, slope and grade, intersections, shortest distance, dihedral angle, and revolution. Reinforces the use and application of accurate scaling techniques. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 2040
Piping Drafting
2
* Prerequisite(s): EGDT 1040 with a grade of C- or higher
Includes single-line and double-line pipe symbols. Covers both isometric and orthographic projection. Studies piping connections such as welded, screwed, soldered, flanged, and bell and spigot. Uses manufacturer's and reference materials specifications. Includes information on copper tubing and brass fittings. Uses hydraulic theory and formulas. Also uses computer (CAD) to develop drawings. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 2050
Plate Layout
2
* Prerequisite(s): EGDT 2040 with a grade of C- or higher
A continuation of Descriptive Geometry (EGDT 2020). Patterns are made of rolled or folded surfaces such as bins, hoppers, duct work, vent pipes, tanks, storage containers, etc. Patterns are also made for pipe end cuts, pipe intersections, transition pieces and twist angles. Emphasizes three types of pattern development: (1) parallel line, (2) radial line, (3) triangulation. Includes practical problems in finding the line of intersection between surfaces and drawing patterns. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 2100
Architecture Materials and Methods
3
* Prerequisite(s): EGDT 1020 with a grade of C- or higher
Introduces traditional architectural materials and methods of design and construction. Covers wood, masonry, and concrete construction as well as finish materials. Builds skills related to organizing, detailing, dimensioning, and scheduling construction documents for a commercial type building. Software fee of $18 applies. Lab access fee of $45 for computers applies.
EGDT 2200  
Advanced Mechanical  
3  
* Prerequisite(s): EGDT 1200 and (EGDT 1070 or EGDT 1071) all with a grade of C- or higher  
Employs 3D modeling software to enhance design processes, including sketching, parametric modeling, 3D assemblies, and producing 2D working drawings. Included are sheet metal, structural parts, mass property, and stress analysis. Software fee of $18 applies. Lab access fee of $45 computers applies.

EGDT 2300  
Advanced Structural CAD  
3  
* Prerequisite(s): EGDT 1300 and (MATH 1060 or EGDT 1610) both with a grade of C- or higher  
A second year class for students who have completed first year structural drafting and want to enhance their knowledge of structural steel detailing. Includes the proper views and dimensioning practices for columns, stairways, handrails, cross-bracing, anchor bolt layout, erection drawing, and field bolt lists. Completers should be ready for entry-level employment as a structural steel detailer for small detailing companies or large construction companies. Software fee of $18 applies. Lab access fee of $45 computers applies.

EGDT 2310  
Structural Steel Modeling  
3  
* Prerequisite(s): EGDT 1040 and EGDT 1300 both with a grade of C- or higher  
Teaches Tekla Structures modeling software. Includes modeling of structural steel buildings, hoppers, stairs, piping, and miscellaneous steel projects. Prepares students for detail and erection drawings which are produced for fabrication and erection of structural steel projects. Software fee of $18 applies. Lab access fee of $45 computers applies.

EGDT 2400  
Surveying Applications and Field Techniques II  
3  
* Prerequisite(s): EGDT 1040 or equivalent, EGDT 1400 and (EGDT 1600 or MATH 1060) both with a grade of C- or higher  
Covers advanced concepts in the U.S. Public Land and State Plane Coordinate systems. Utilizes advanced surveying instruments such as total station, automatic level, GPS equipment, and data collectors. Covers advanced leveling procedures, volume computations, monumentation, mapping, boundary surveys, and route surveys. Features the writing of legal property descriptions. Builds upon knowledge of safe surveying procedures. Includes use of surveying calculation softwares. Covers horizontal curve calculations and highway staking. Completers should be able to work as an instrument person on survey crews and also prepare the drawings related to the surveys. Lab access fee of $45 for computers applies Software fee of $18 applies. Course fee of $12 for materials applies.

EGDT 2500  
3 Dimensional Modeling--Civil 3D  
3  
* Prerequisite(s): EGDT 1040, EGDT 1400  
Describes design workflows of typical civil engineering firms. Employs functions of Autodesk Civil 3D application software for civil design and modeling. Includes Digital Terrain Models (DTM's), street alignments, plan and profiles, grading, and utilities/piping design and drafting. Develops a full set of civil engineering improvement plans for a residential subdivision. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 2600  
Applied Structures I - Statics  
3  
* Prerequisite(s): MATH 1050 or MATH 1055 or (EGDT 1600 and 1610)  
Covers architectural structures for low-rise and light construction projects. Applies trigonometry and technical math. Covers lateral, wind, seismic, and snow loads. Introduces the basic principles of statics including; force systems, moments, resultantsof force systems, analysis of structures, centroids and centers of gravity, and moments of inertia.

EGDT 2610  
Applied Structures II - Strength of Materials  
3  
* Prerequisite(s): EGDT 2600 with a grade of B- or higher  
Examines architectural long-span and high-rise structures with an emphasis on steel and concrete construction. Covers stresses, strains, properties of materials, Poisson's ratio, thermal effects, shear force, bending moments, lateral loads, deflection, connections, beam design and column design.

EGDT 2710  
Special Problems Mechanical  
2  
* Prerequisite(s): EGDT 2200 with a grade of C- or higher  
An advanced course in mechanical layout and design using solid modeling techniques. Students, with approval, may design and layout projects of their choice. Final details are fabricated in the machine shop. Lab access fee of $45 for computers applies.

EGDT 2720  
Special Problems Surveying  
2  
* Prerequisite(s): EGDT 2400 and (MATH 1060 or EGDT 1610) both with a grade of C- or higher  
For people seeking a surveyor's license, civil engineering, drafting and construction management majors. Covers instrument maintenance and calibration, basic photogrammetry and surveying for photogrammetry, mine surveying, construction surveying, resection, and legal aspects of land surveying. Completers should have job skills for surveying and civil technology. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 2730  
Special Problems Civil Drafting  
2  
* Prerequisite(s): EGDT 2400 with a grade of C- or higher  
For people seeking a surveyor's license or intended Civil Engineering and Engineering Graphics and Design majors desiring a civil drafting emphasis. Covers preparation of drawings associated with surveying and civil engineering and design. Projects include: property surveys and subdivision design, geotechnical investigations, wastewater treatment, storm drains, highway design, topographic mapping, earthen and concrete dams, and NICET certifications. Software fee of $18 applies. Lab access fee of $45 for computers applies.

EGDT 2740  
Special Problems Architectural  
2  
* Prerequisite(s): EGDT 1100 with a grade of C- or higher  
A special problems course in architectural drafting. Teaches how to layout and detail a floor plan using a 3D modeling package. Software fee of $18 applies. Lab access fee of $45 for computers applies.
**Course Descriptions**

**EGDT 2750**  
Special Problems Architectural Rendering  
2  
For students who wish to develop additional architectural rendering skills to enhance their job performance. Covers theory of perspective, laying out a building perspective from blueprints, inking techniques to develop a finished rendering, and quick coloring methods for ink renderings. Course fee of $10 for materials applies.

**EGDT 2760**  
Special Problems Structural  
2  
* Prerequisite(s): EGDT 1300 with a grade of C- or higher  
Provides opportunities for in-depth study in structural steel drafting. Teaches beam sizing and selection for design drawing. Requires a special class project with complete objectives and goals outlined and presented to the instructor for approval. Emphasizes project documentation. Computer graphics are an important part of this course. Software fee of $18 applies. Lab access fee of $45 for computers applies.

**EGDT 2780**  
Special Problems Electrical  
2  
* Prerequisite(s): EGDT 1010 with a grade of C- or higher  
For students who wish to advance beyond EGDT 2010 through the development of an outside project which incorporates advanced theory and drawing procedures. The instructor will review project outline to ensure that it meets course objectives and will monitor student progress, establishing progressive goals. Software fee of $18 applies. Lab access fee of $45 for computers applies.

**EGDT 281R**  
Internship  
1 to 3  
* Prerequisite(s): Department approval and completion of: EGDT 1010, EGDT 1040, EGDT 1070 or EGDT 1071, EGDT 1020, EGDT 1100, EGDT 1200, EGDT 1300, and EGDT 1400, all with a C- or higher  
Provides on-the-job work experience in the student's major. Includes student, employer, and coordinator evaluations, on-site work visits, written assignments, and presentations. Provides experience in writing and completing individualized work objectives that improve present work performance. May be repeated for a maximum of 3 credits toward graduation. May be graded Credit/No Credit.

**EGDT 285R**  
AEC Design Lecture Series  
.5  
Provides student opportunities to network and collaborate with industry professionals. Provides exposure to career options within the architecture and other related design industries. Emphasizes the importance of professional ethics and communicating with others. May be Graded Credit/No Credit. May be repeated for a maximum of 3 credits toward graduation.

**EGDT 2860**  
Cooperative Correlated Instruction Skills USA  
.5  
SkillsUSA is a first year class for Engineering Graphics and Design Technology majors. Includes leadership training, parliamentary procedure, job interview skills, prepared speaking, extemporaneous speaking, and organizational skills. Upon completion, the student should understand the SkillsUSA organization and how it helps to build leadership skills.

**EGDT 2870**  
Portfolio and Career Preparation  
1  
Required for Engineering Graphics and Design Technology majors. Teaches necessary job acquisition skills. Instructs students in the job search process, including production of typical types of correspondence, job interview techniques, and creation of presentation-quality portfolios. Correspondence includes letters of application, resumes, follow-up letters, letters of acceptance and rejection, and references. Interview techniques include interview preparation, appearance, and question/answer techniques. Final project is portfolio of samples of work in all areas of Engineering Graphics & Design Technology learned for the degree. Software fee of $18 applies. Lab access fee of $45 for computers applies.

**EGDT 3450**  
Civil Design Systems  
3  
* Prerequisite(s): EGDT 2500, EGDT 3500, and University Advanced Standing  
Teaches theories, principles, and practices of traffic systems design, gravity and pressure piping systems design, surface grading systems, and hydrology. Explores various computational and design software used to develop finished construction drawings for public and private infrastructure projects.

**EGDT 3500**  
Advanced Civil Drafting and Design  
3  
* Prerequisite(s): [(EGDT 1040 or EGDT 1060) and EGDT 1400 each with a grade of C- or higher] and University Advanced Standing  
Covers the analysis, design and preparation of drawings associated with the surveying and civil engineering fields. Exposes the student to the NICET certification process. Focuses on GPS and GIS technologies to acquire design data. Develops a working knowledge of the Utah Department of Transportation Standard Plans and Specifications. Projects include: property surveys, topographic mapping, subdivision design, geotechnical investigations, Water and Wastewater Treatment Plants, storm drainage, highway design, traffic flow diagrams, and earthen and concrete dams. Lab access fee of $45 for computers applies.

**Literacies and Composition (ENGH)**

**ENGH 0890**  
Literacies and Composition Across the University  
5  
* Prerequisite(s): Appropriate placement scores.  
Teaches reading-based writing (reading-to-write). Helps students bridge the gap between personal and academic writing and practice ways their personal literacies, experiences, opinions, and observations extend to particular academic conversations. Emphasizes extensive reading throughout the semester using models for organization, style and primary sources for classroom discussions and essay content. Lab access fee of $15 for computers, software applies.

**ENGH 1005**  
Literacies and Composition Across Contexts  
CC  
5  
* Prerequisite(s): ENGH 0890 or appropriate placement scores.  
Focuses on reading-based writing with strong rhetorical concentration; expands critical reading, writing, and thinking concepts from 0890 and prepares students for reading, writing, and thinking in ENGL 2010 and other future courses and future situations. Provides strong skills development in digital literacy for multi-media content creation, research, and presentations. Provides a project-based curriculum, along with best-practices pedagogies, providing students with authentic contexts, audiences, and opportunities to be intrinsically motivated to develop writing and reading skills and knowledge. May be delivered hybrid and/or online. Canvas Course Mats of $33/Fountain Head Press applies. Lab access fee of $15 applies.
English (ENGL)

ENGL 1010 CC
Introduction to Academic Writing
3
* Prerequisite(s): Appropriate test scores taken within the last five years.
Teaches rhetorical knowledge and skills, focusing on critical reading, writing, and thinking. Introduces writing for specific academic audiences and situations. Emphasizes writing as a process through multiple drafts and revisions. May be delivered hybrid and/or online.

ENGL 101H CC
Introduction to Writing
3
* Prerequisite(s): Appropriate test scores taken within the last five years.
Teaches rhetorical knowledge and skills, focusing on critical reading, writing, and thinking. Introduces writing for specific academic audiences and situations. Emphasizes writing as a process through multiple drafts and revisions. Includes major essay assignments, writing and collaboration, research writing, journals, and portfolios. Honors sections challenge the student to take more qualitatively substantive and/or advanced approaches to course content and assignments.

ENGL 2010 CC
Intermediate Writing/Academic Writing and Research
3
* Prerequisite(s): Appropriate ACT test scores taken within the last three years or completion of ENGL 1010 or ENGL 101H with a grade of C- or higher, or ENGH 1005 with a grade of C or higher.
Emphasizes academic inquiry and research. Explores issues from multiple perspectives. Teaches careful reasoning, argumentation, and rhetorical awareness of purpose, audience, and genre. Teaches critically evaluating, effectively integrating, and properly documenting sources. May be delivered hybrid and/or online.

ENGL 201H CC
Intermediate Writing Humanities/Social Sciences
3
* Prerequisite(s): Appropriate ACT test scores taken within the last three years or completion of ENGL 1010 or ENGL 101H with a grade of C- or higher, or ENGH 1005 with a grade of C or higher.
Emphasizes academic inquiry and research in the humanities and social sciences. Explores issues from multiple perspectives. Teaches careful reasoning, argumentation, and rhetorical awareness of purpose, audience, and genre. Focuses on critically evaluating, effectively integrating, and properly documenting sources. In addition to major essay assignments, may include in-class writing and collaboration, an annotated bibliography, oral presentations, and portfolios. Honors sections challenge the student to take more qualitatively substantive and/or advanced approaches to course content and assignments.

ENGL 2030 HH
Writing for Social Change
3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher
Introduces theories and strategies of persuasion to help students understand and use basic tools of civic literacy, including critical thinking, reading, and writing. Uses writing to engage with complex social issues. Includes analysis and production of texts such as letters to the editor, opinion-editorials, writing for non-profit organizations, and political speeches.

ENGL 2050 Editing
3
* Prerequisite(s): ENGL 1010 or ENGH 1005
Covers the essentials of editing manuscripts for publication. Provides students with the necessary knowledge of punctuation, grammar and usage as well as the symbols and conventions of editing.

ENGL 2100 (Cross-listed with: ENGL 2210) CC
Technical Communication WE
3
* Prerequisite(s): ENGL 1010 or ENGH 1005
Teaches basic technical writing skills used in a variety of professional settings. Emphasizes audience analysis, document design, and using precise language for a particular audience.

ENGL 2120 Fantasy Literature
3
* Prerequisite(s) or Corequisite(s): ENGL 1010 or ENGH 1005
Surveys major fantasy authors from the 19th century to the present. Teaches key elements of the genre, including world creation, character, and significant themes. May include a creative writing component.

ENGL 2130 HH
Science Fiction
3
* Prerequisite(s) or Corequisite(s): ENGL 1010 or ENGH 1005
Presents a chronological survey of major Science Fiction authors from Mary Shelley (1818) to the present. Emphasizes the importance of character, setting, plot, and scientific ideas in analyzing literature. Uses discussion, lectures, videos, and films to help students increase appreciation for the literary genre and its works. Completers will have a better understanding of science fiction, plus enhanced writing skills.

ENGL 2150 (Cross-listed with: CINE 2150) HH
Critical Introduction to Cinema Studies
3
* Prerequisite(s): ENGL 2010
Studies film as an aesthetic and cultural medium. Teaches the fundamentals of film, including narrative form, mise en scene, cinematography, editing, sound, and non-narrative forms. Teaches film analysis, including ideological approaches, and considers film as a cultural institution. May be delivered hybrid.

ENGL 217G (Cross-listed with: CINE 217G, COMM 217G) HH
Race Class and Gender in U S Cinema GI
3
* Prerequisite(s): ENGL 1010 or ENGH 1005
Raises cultural awareness through aesthetic, critical, and interdisciplinary examination of the evolution of the representation of race, class, and gender in American cinema. Focuses on both Hollywood and independent minority filmmakers. Some films screened may carry an "R" rating.

ENGL 220G HH
Introduction to World Literature
3
Introduces literary appreciation of world literatures. Teaches criticism and terminology as applied to various types of literature, including fiction, poetry, and drama. Requires students to consider texts from positions, of Race, Ethnicity, Culture, Gender, Sexuality and (Dis)ability, Uses discussion, lecture, films, videos, and tests.

ENGL 2210 HH
Introduction to Folklore
3
* Prerequisite(s) or Corequisite(s): ENGL 1010 or ENGH 1005
Introduces the study of folklore. Presents the dynamics of the traditional expressions of a variety of folk groups. Emphasizes folklore performance and its cultural context. Provides practical experience in folklore collection.
### Course Descriptions

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<th>Course Code</th>
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<th>Type</th>
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<td>ENGL 2310</td>
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<td>ENGL 2320</td>
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<td>ENGL 2410</td>
<td>Critical Introduction to Literature</td>
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<td>* Prerequisite(s): Completion of ENGL 2010 with a grade of C- or higher</td>
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<td>ENGL 2510</td>
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<td>* Prerequisite(s) or Corequisite(s): ENGL 1010 or ENGH 1005</td>
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<tr>
<td>ENGL 2520</td>
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</table>

Introduces students to myths and legends that are the foundation of literature. Uses discussion, storytelling, videos, journals, and portfolios.

Introduces several Shakespeare plays with particular attention to analysis and critical review of Shakespeare's works. Teaches comprehension of Shakespeare's works and their continued cultural stature. Explores aspects of dramatic performance and a selection of Shakespeare's poetry. May include discussion, lectures, films, papers, examinations, and attending or performing in plays or scenes from plays. Completers should be able to interpret Shakespearean literature and explain the relationship of Shakespeare's works to the world of today.

Provides a thorough foundation for the study of classical mythology; explores common myth themes through guided research and projects in world myth; analyzes myth through a variety of theoretical perspectives. Focuses on lecture, discussion, written and oral presentations, myth analysis, exams, and papers.

Introduces the concept of positionality, helping students to diverse cultural texts, preparing for contributions to scholarly and popular conversations through sophisticated, creative, and socially aware interpretive methods. Introduces the concept of positionality, helping students proceed as responsible scholars and writers through an exploration of social location. Prepares students for success by developing transferable skills in textual analysis, research, and production.
Course Descriptions

ENGL 2730
Introduction to Gender Studies
3
* Prerequisite(s): ENGL 2010
Analyzes gender from an interdisciplinary model. Explores such issues as the definition of masculinity and femininity, the function of gender roles and stereotypes, and what it means to have sexed bodies and minds. Analyzes questions of gender through the different frameworks of literature, anthropology, sociology, history, biology, psychology, and philosophy.

ENGL 276R
Themes in Literature
3
* Prerequisite(s): ENGL 1010 or ENGH 1005
Analyzes specific themes/topics in literature (generic or other). Requires reading and study of representative works. Includes short papers, tests and presentations. Possible course themes are: horror, fantasy, nonfiction, detective fiction, and western American literature, among others. May be repeated for up to 6 credits toward graduation.

ENGL 2800
Introduction to the English Major
3
* Prerequisite(s) or Corequisite(s): ENGL 2010
Introduces students to the English major and the practice of reading, discussing, and writing about texts and cultural productions across a variety of modes, including poetry, fiction, film, and professional, multimodal and digital texts, among others. Explores a range of genres and textual artifacts from Western and non-Western literary traditions. Builds skills in critical, technical, and creative production through assignments that represent the multiple disciplines in the English department. Prefeats the four different emphases offered by the English department: literary studies, creative writing, writing studies, and English education, to provide students with a foundation in studies in the humanities. Surveys the professional skills, careers, and opportunities fostered by a degree in English.

ENGL 281R
Internship
1 to 8
* Prerequisite(s): Approval of Cooperative Coordinator
Designed for English majors. Provides experience in the student’s major. Students who receive credit for an internship must establish learning objectives with their Faculty Sponsor at the beginning of their internship and reflect on their learning through academic work (i.e. papers, journal, etc.). Students are required to submit an evaluation of their experience at the end of the semester. Credit is determined by the number of hours a student works during the semester. May be repeated for a maximum of 8 credits toward graduation. May be graded credit/no credit.

ENGL 2850
Literary History I
3
* Prerequisite(s) or Corequisite(s): ENGL 2800
Examines texts from the British Isles to approximately 1700. Develops interpretive skills emphasizing form, genre, culture, and history. Explores major intellectual and literary movements in the period. Defines and practices literary terminology in interpretations of representative canonical and noncanonical texts. Focuses on discussion, analysis, and a variety of textual productions.

ENGL 2870
Literary History II
3
* Prerequisite(s) or Corequisite(s): ENGL 2800
Surveys Anglophone literature from approximately 1700 to the present. Provides a critical introduction to literary periods and the relationship between literary artifacts and their historical, geographical, and cultural contexts. Develops and applies critical reading and analytical skills through discussion and interpretive projects.

ENGL 290R
English Scholarly Forum
1
* Prerequisite(s): ENGL 2010
Requires attendance at academic campus events of student’s choice (conferences, lectures, colloquia, symposia, workshops, reading groups, etc.) and composing reflective, written assignments. Includes informal meetings with instructor at the beginning and end of the course. May be taken three times for credit.

ENGL 299R
Independent Study
.5 to 3
Provides independent study as directed in reading and individual projects at the discretion and approval of the Dean and/or Department Chair. Limited to three credits toward graduation with an AS/AA degree.

ENGL 3010
Rhetorical Theory
3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher and University Advanced Standing
Considers prominent theories of rhetoric and accompanying methods for the production of texts in various contexts, encouraging adopting, amending, and/or developing hybrid theories of rhetoric.

ENGL 3020
Modern English Grammars
3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher and University Advanced Standing
Explores language structures, discovering connections between grammar (linguistic structure) and language uses (discourse and/or rhetoric). Includes the study of and practice in informed decision-making in the process of developing language structures (grammatical choices) appropriate to a particular rhetorical aim.

ENGL 304G
History of the English Language
3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher and University Advanced Standing
Focuses on the origins of the English language and how it has grown and continues to change. Introduces historical origins of the English language and changes that produced our present speech in its many dialects, creoles, and pidgins. Combines linguistic and rhetorical histories.

ENGL 3050
Advanced Editing and Design for Print Media
3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher and University Advanced Standing; ENGL 2050 recommended
Refines student editing, design, and publishing skills. Provides students with the opportunity to take manuscripts from editing to press-ready. Teaches industry standards for current publishing tools. Includes projects such as designing books, marketing literature, and corporate identities. Covers design, typography, and pre-press issues as they relate to writing and editing documents. Recommended for students involved with student publications, including journals and campus newspaper.
ENGL 3060 (Cross-listed with: HUM 3060) Visual Rhetoric 3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher and University Advanced Standing

Investigates the growing academic and cultural interest in the rhetorical nature of visual texts. Teaches critical thinking about the consumption and production of images and multimodal texts. Explores visual grammars and other theories of visual rhetoric as articulated by contemporary image, language, and scholars of rhetoric. Encourages the development of theoretical and practical knowledge through reading, discussion, and analysis as well as through the production of visual texts and written work.

ENGL 3070 Public Rhetorics 3
* Prerequisite(s): ENGL 2010 with a C- or higher and University Advanced Standing

Investigates the structure and nature of rhetorical identities and arguments in public discourse. Introduces genres of public discourse to examine their rhetorical construction and circulation to mass audiences. Explores and critiques theories of democratic deliberation. Studies texts in media such as advertising, blogs, film, social networking venues, television, and websites through specific theories of public rhetoric. Examines arguments regarding the complex nature of public ethos. Includes reading, discussion, analysis, research, and production of public rhetorics through a variety of media and methods.

ENGL 3085 Rhetorical Approaches to Popular Culture 3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher and University Advanced Standing

Explores popular culture as a contested site of meaning-making, identity-formation, and shared experiences. Reviews historical theories that construct the status of the popular or the mainstream versus the comparative labels of the "highbrow" and the "subcultural." Analyzes how media access, socioeconomic context, cultural movements, and generational differences formulate taste preferences and different styles of engagement with popular texts. Focuses on the rhetorical practices of pop culture creation and consumption with an emphasis on personal and political ramifications. Examines texts that are industry-produced and texts created through the practices of fans, critics, and theorists.

ENGL 3090 Academic Writing for English Majors WE 3
* Prerequisite(s): ENGL 2600 with a grade of C- or higher and University Advanced Standing
* Corequisite(s): ENGL 3000 Recommended

Centers on scholarly research and writing in fields related to English Studies, drawing on students’ areas of focus. Emphasizes analysis, rhetorical theories of writing, development, style, oral presentations, and primary and secondary research techniques. Prepares students to extend their abilities with researched writing in other upper-division courses and teaches students advanced scholarly attitudes toward researched writing.

ENGL 3110 (Cross-listed with: COMM 3110, THEA 3110) Non Fiction Cinema History 3
* Prerequisite(s): ENGL 2150 and University Advanced Standing

Surveys the history of non-fiction/documentary film from 1896 to the present. Includes study of early pioneers from Flaherty's NANOOK OF THE NORTH to the current trend of reality television and popular documentaries. Some films screened may carry an "R" rating.

ENGL 314G (Cross-listed with: COMM 314G, THEA 314G) Global Cinema History 3
* Prerequisite(s): ENGL 2150 or THEA 1023

Studies the evolution of global film styles, movements, stars, and genres with a focus on international cinema chronologies outside the United States. Some films screened may be considered controversial and carry an "R" rating.

ENGL 3150 (Cross-listed with: CINE 3150) Cinema and Television Theory 3
* Prerequisite(s): (CINE 2150 or ENGL 2150) and University Advanced Standing

Examines major theoretical approaches to the screen arts. Explores how cinema and television reflect and are created by historical and contemporary cultural contexts. Includes the study of various approaches such as fan studies, spectatorship, stars, authorship, genre, long-form narrative and production. Includes lecture, film and media screenings, and critical discussions of assigned readings.

ENGL 3300 Collaborative Communication for Technology Professions 3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher and University Advanced Standing

Teaches technical communication skills and methodologies in demand by business and industry. Provides collaborative experience in the development of a professional, team-oriented project, using suitable technology. Integrates textual and visual rhetorics through effective design practices. Emphasizes primary and secondary research as well as usability testing. Lab access fee of $12 for computers applies.

ENGL 3320 Grant and Proposal Writing 3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher and University Advanced Standing

Introduces students to private and governmental funding sources. Demonstrates successful proposal and grant writing strategies. For interested upper-division students and Technical Writing emphases and minors.

ENGL 3340 Digital Document Design 3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher and University Advanced Standing

Teaches web-based document design and other digital genres. Introduces HTML, CSS, and industry standard tools. Emphasizes rhetorical differences between digital and print documents and focuses on the collaborative and viral nature of web texts.

ENGL 3420 Intermediate Fiction Writing 3
* Prerequisite(s): ENGL 2250 or ENGL 225H with a C- or higher, and University Advanced Standing

Provides intermediate instruction in practices and techniques for generating, writing, and revising original short fiction. Focuses on contemporary fiction and critical theories associated with contemporary fiction. Explores and provides practice in various categories of fiction. Utilizes the creative writing workshop as the primary method of critical engagement with and critique of original short fiction.
ENGL 3430
Play Writing for Creative Writers
3
* Prerequisite(s): ENGL 2250 or ENGL 225H with a C- or higher, and University Advanced Standing

Provides intermediate instruction in practices and techniques for generating, writing, and revising original plays. Focuses on critical theories associated with contemporary playwriting. Explores and provides practice in various categories of drama. Utilizes the creative writing workshop as the primary method of critical engagement with and critique of original writing.

ENGL 3440
Intermediate Poetry Writing
3
* Prerequisite(s): ENGL 2250 or ENGL 225H with a C- or higher and University Advanced Standing

Provides intermediate instruction in practices and techniques for generating, writing, and revising original poetry. Focuses on contemporary poetry and critical theories associated with contemporary poetry. Utilizes the creative writing workshop as the primary method of critical engagement with and critique of original poetry. May include attendance at poetry readings, memorizations, and critique of original poetry to literary journals.

ENGL 3450
Intermediate Creative Nonfiction Writing
3
* Prerequisite(s): ENGL 2250 or ENGL 225H with a C- or higher and University Advanced Standing

Provides intermediate instruction in practices and techniques for generating, writing, and revising original nonfiction. Focuses on contemporary nonfiction and critical theories associated with contemporary nonfiction. Explores and provides practice in various categories of nonfiction. Utilizes the creative writing workshop as the primary method of critical engagement with and critique of original writing. Addresses the challenges of transforming experience into writing.

ENGL 3460
Wilderness and Environmental Writing
3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher and University Advanced Standing

Introduces students to the literary conversation of appreciation and responsibility for our natural world and teaches them how to engage meaningfully in that conversation. Requires (1) extensive readings in literature of the natural world, including scientific, polemic, creative nonfiction, and fiction writing modes bearing on environmental stewardship and (2) a writing portfolio that includes polemic, creative nonfiction, fiction, and poetry. Includes discussion of assigned readings and workshop of student manuscripts. Requires overnight wilderness field trips; students with disabilities will be accommodated on field trips.

ENGL 347R
Popular Genre Writing
3
* Prerequisite(s): English 2250 or English 225H with a C- or better, and University Advanced Standing

Provides an overview of genre conventions and required skills for composing original creative writing in a specified genre. Focuses on genres such as science fiction, fantasy, visual poetry, young adult writing, wilderness writing, or travel writing, among others. Utilizes readings, writing exercises, workshops, and other strategies to build competency in writing in the chosen genre. May be repeated up to 6 credits toward graduation.

ENGL 348R
Creative Writing Craft and Theory
3
* Prerequisite(s): English 2250 or English 225H with a C- or better, and University Advanced Standing

Investigates a specific writing skill or skills relevant to the creative writing process. Focuses on craft concepts such as the construction of the sentence, line, image, metaphor, or other essential components of literary writing. Provides more intensive practice on an element of writing craft than general workshops. Topics for this course may be focused on a specific genre, or they may be appropriate for writers working in multiple genres. Requires reading and study of representative works and creating original writing. May be repeated for up to 6 credits toward graduation.

ENGL 3510
Early American Literature
3
* Prerequisite(s): ENGL 2010 and (ENGL 2850 or ENGL 2870), both with a grade of C- or higher, and University Advanced Standing

Explores American literature of the romantic period, the Civil War, and the post-war movements of realism and naturalism (c. 1830-1900). Examines multiple genres, authors, and texts in relation to intellectual and historical developments.

ENGL 3520
Nineteenth Century American Literature
3
* Prerequisite(s): ENGL 2010 and (ENGL 2850 or ENGL 2870), both with a grade of C- or higher, and University Advanced Standing

Studies modern American literature (c. 1900-1960s) in relation to intellectual, historical, and ethical developments. Emphasizes important works by major fiction writers, poets, and playwrights responding to radical changes in America brought on by industrial-capitalist transformation, shifting demographics, women’s rights, minority rights, artistic experimentation, and world wars.

ENGL 3540
Contemporary American Literature
3
* Prerequisite(s): ENGL 2010 and (ENGL 2850 or ENGL 2870), both with a grade of C- or higher, and University Advanced Standing

Studies significant authors, themes, and topics in American literature (c. 1968 to present) in relation to historical and intellectual developments and contemporary literary theory. Explores multiple genres, including fiction, poetry, drama, and film.

ENGL 357G
Native American Literature
3
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Surveys a wide range of Native American literature. Examines the cultures and identities of Native Americans through the study of literary texts including mythology and works by contemporary writers such as N. Scott Momaday, Leslie Marmon Silko, Louise Erdrich, and Sherman Alexie, among others.
Course Descriptions

ENGL 3610 Medieval Literature 3
* Prerequisite(s): ENGL 2010 and (ENGL 2850 or ENGL 2870), both with a grade of C- or higher, and University Advanced Standing
Explores major authors and works from Old and Middle English literature and related literary traditions (such as Celtic, Anglo-Norman, and Latin) from approximately 700 to 1485 CE. Analyzes relevant cultural, philosophical, and historical influences on texts from the period. Authors may include the "Beowulf" poet, Marie de France, Dante, Julian of Norwich, the "Pearl" poet, Langland, Chaucer, Hoccleve, Margery Kempe, Malory, and the York and Wakefield Play Cycles.

ENGL 3620 Tudor and Stuart Literature 3
* Prerequisite(s): ENGL 2010 and (ENGL 2850 or ENGL 2870), both with a grade of C- or higher, and University Advanced Standing
Explores major authors, works, and themes from the Tudor period (1485-1603). Includes works by authors such as Surrey, Wyatt, Skelton, Moore, Marlowe, Sydney, Spenser, Queen Elizabeth I, Raleigh, Mary Herbert, Shakespeare, Drayton, Campion, Nashe, and others. Analyzes relevant cultural, philosophical, and historical aspects of the period.

ENGL 3640 British Literature of the Long Eighteenth Century 3
* Prerequisite(s): ENGL 2010 and (ENGL 2850 or ENGL 2870), both with a grade of C- or higher, and University Advanced Standing
Examines literary history from the Glorious Revolution through the Romantic period (1688-1819), including key political, philosophical and cultural developments such as the Enlightenment, transatlantic slavery and colonialism, literature by women, the gothic, the rise of the novel, and the industrial revolution. Authors may include Behn, Blake, Coleridge, Defoe, Haywood, Johnson, Keats, Shelley, Swift, Pope, Wollstonecraft, Wordsworth and others.

ENGL 3650 Victorian Literature 3
* Prerequisite(s): ENGL 2010 and (ENGL 2850 or ENGL 2870), both with a grade of C- or higher, and University Advanced Standing
Explores British literature and culture of the Victorian period (approx. 1830-1900) in relation to intellectual and historical developments. Emphasizes critical engagements with key political and cultural issues, such as Victorian gender roles and women’s rights, industrialization and class conflict, imperial expansion and racial pseudoscience, technological and scientific advancement, and religion. Authors may include Dickens, Tennyson, Eliot, the Brownings and Rossettis, the Brontës, Hardy, and Wilde.

ENGL 3660 British Literature since 1900 3
* Prerequisite(s): ENGL 2010 and (ENGL 2850 or ENGL 2870), both with a grade of C- or higher, and University Advanced Standing
Explores modern and contemporary British literature in relation to intellectual and historical developments. Emphasizes the literature of empire and of the world wars, literary modernism, postmodernism, and postcolonial writing. Authors may include T. S. Eliot, Virginia Woolf, W. H. Auden, Salman Rushdie, Zadie Smith, and Hilary Mantel, among others.

ENGL 3670 Literature by Women 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Provides a substantive framework of important critical issues regarding literature by or about women. Applies feminist critical theory to fiction, poetry, personal essays, or drama written by women.

ENGL 3710 Literature of Cultures and Places 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Studies literature written in English by authors from outside the United States and Britain or by authors in the United States and Britain defined by regional or cultural traditions (e.g. Southern US, Welsh, urban working-class). May be repeated twice with different designations.

ENGL 374G Literature of the Sacred 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Focuses on reading and interpreting primary texts of Hinduism, Buddhism, Judaism, Christianity, Islam, and others emphasizing resonances of these texts in later works of literature. Discusses texts from a literary standpoint within the genre of "religious writings."

ENGL 375G World Literature 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Studies literature from outside of Britain and the United States. Focuses on texts selected by region, culture, time period, or author (or closely related group of authors).

ENGL 377G Latina/o Literature in America 3
* Prerequisite(s): University Advanced Standing
Studies Latina/o literature written in and about the United States and North America through close readings of novels, poetry, and other media from a variety of national, ethnic, and cultural traditions and perspectives including Mexico, the Caribbean, and the Brazuca/o experience. Examines issues such as identity, language, culture, race, ethnicity, and national borders, alongside questions of style, form, symbolism, and narrative. Integrates active class discussions, film screenings, student presentations, examinations, and papers. All texts are either written in English or taught in translation.

ENGL 3780 Mormon Literature 3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher and University Advanced Standing
Surveys the foundations of Mormon literature as expressed through short fiction, novels, personal essays, drama, history and criticism.

ENGL 3790 Contemporary LGBTQ Literature 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Surveys literary, historical, critical, and cultural texts that reflect the diversity inherent among sexually marginal communities in the United States. Includes, but is not limited to novels, short stories, drama, poetry, film, and visual art.

ENGL 3820 History of Literary Criticism 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Explores strategies and theories influencing the reading and writing of literary texts from classical antiquity to the present.
ENGL 3890
Contemporary Critical Approaches to Literature WE
3
* Prerequisite(s): Completion of ENGL 2600 with a grade of C- or higher and University Advanced Standing
* Prerequisite(s) or Corequisite(s): ENGL 3090
Provides in-depth study of one contemporary theoretical and critical approach to literature using primary texts. Explicates how interpretive techniques function within the discipline of English Studies. Required for English majors. Should be taken beginning of junior year.

ENGL 401R
Topics in Rhetoric
3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher and University Advanced Standing
* Prerequisite(s) or Corequisite(s): ENGL 3010
Examines advanced topics in rhetoric and writing. Studies writing’s central role in education, communication, and culture. Emphasizes discourse communities and genres. Analyzes how writing constructs meaning in academic, professional, media, and personal texts. Situates writing as an instrument for community engagement and service learning. May be repeated for a maximum of 6 credits toward graduation.

ENGL 402G
Multicultural Rhetorics
3
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ENGL 3010
Investigates multicultural forms of rhetoric through various historical and spatial contexts. Theorizes ways to view rhetoric and conduct research through an intercultural lens by tracing the shifting nature of rhetoric through multiple ideological frameworks. Fosters a deeper understanding of how cultures and rhetorics interface.

ENGL 412R
Studies in Literary Genres
3
* Prerequisite(s): (ENGL 2250 or ENGL 225H) with a C- or higher and University Advanced Standing
Provides an historical and craft overview of developments in a specific genre of creative writing. Engages with literary texts from the position that reading widely and critically is vital to authoring literary works. Utilizes creative, critical, and reflective components to help students situate their own work within a history of a certain genre. Focuses on a different creative writing genre each semester, including fiction, non-fiction, poetry, or drama. May be repeated with different genres for a maximum of 6 credits toward graduation.

ENGL 414R
Special Topics in Cinema History
3
* Prerequisite(s): ENGL 2150 and University Advanced Standing
Focuses study on a specific U.S. or International period or movement. Representative topics may include German Expressionism, Italian Neorealism, New Hollywood Cinema, and etc. May be repeated for a maximum of 9 credits toward graduation. Some films screened may carry an “R” rating.

ENGL 416R (Cross-listed with: CINE 416R, THEA 416R)
Special Topics in Film Studies
3
* Prerequisite(s): (ENGL 2150 or CINE 2150 or THEA 1023) and University Advanced Standing
Covers cinema directors, genres, theory, and social change on a rotating basis. Explains course focus, defines terminology involved, then studies evolution and/or specific texts or contexts, and considers theoretical discourse. May be repeated for a maximum of 9 credits toward graduation. Some films screened may carry an “R” rating. Course fee of $40 for support applies.

ENGL 4200
Teaching Reading and Literature
3
* Prerequisite(s): EDSC 1010 and University Advanced Standing
* Corequisite(s): ENGL 4225
Emphasizes the teaching of reading and literature in the secondary English classroom. Includes an introduction to the field of English Education and to lesson planning. Presents strategies for teaching skills and concepts outlined in state and national standards. Explores issues and research related to adolescent literacy through reading and discussion including social and cultural influences on literacies and learning. Requires students to create lesson plans and teaching materials.

ENGL 4220
Teaching Reading Practicum
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): ENGL 4220
Focuses on classroom observations and working with current secondary teachers in their classrooms. Requires a minimum of eight hours of observations/work in approved secondary schools. Entails reading, observations, practical work in classrooms, and critical reflection.

ENGL 4225
Teaching Writing Practicum
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): ENGL 4240
Presents strategies for teaching writing and assigning and assessing student writing. Includes designing assessments (including rubrics and scoring guides) and lessons to teach skills in each of the major writing modes: informative, argumentative, and narrative. Entails class discussion, scholarly reading, and creation of teaching materials.

ENGL 4230
Teaching Writing
3
* Prerequisite(s): University Advanced Standing
* Corequisite(s): ENGL 4235
Focuses on classroom observations and working with current secondary teachers in their classrooms. Requires a minimum of eight hours of observations/work in approved secondary schools as well as work providing feedback to secondary student writing. Entails reading, observations, practical work in classrooms, and critical reflection.

ENGL 4240
Grammar and Unit Design in the English Classroom
3
* Prerequisite(s): ENGL 4230 and University Advanced Standing
* Corequisite(s): ENGL 4245
Continues to examine issues related to teaching English in secondary schools. Focuses on writing long-term unit plans for teaching based on best practices and current educational approaches. Refines understanding of pedagogical theories and approaches with special emphasis on teaching the conventions of writing instruction. Treats modern grammars as multi-faceted, socially-driven practices. Focuses on curriculum design and assessment. Entails class discussion, critical reading, and creation of teaching materials.

ENGL 4245
Grammar and Unit Design Practicum
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): ENGL 4240
Focuses on classroom observations and working with current secondary teachers in their classrooms. Requires the teaching of three class periods. Entails reading, observations, practical work in classrooms, and critical reflection.
ENGL 4250
Adolescent Literature
3
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Explores attitudes towards adolescence as a distinctive psychological, social and moral state, using contemporary and time-honored works from various cultures. Pays particular attention to contemporary adolescent issues, history of young adult literature, significant trends in young adult literature, and the role of young adult literature in the literacy development process.

ENGL 4340
Advanced Technical Communication
3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher and ENGL 2100 and University Advanced Standing

Introduces advanced theory to critically reflect upon workplace genres and values to situate technical communication into broader political and global contexts. Teaches user-centered document design, including initial proposals and research, drafting, collaboration, usability testing, and document management. Emphasizes designing documents for local and university clients.

ENGL 4390
Writing Studies Capstone
3
* Prerequisite(s): ENGL 2100, ENGL 3010, Senior Status, and University Advanced Standing

Prepares students to enter careers and graduate school by critically reflecting on the relevance and value of Writing Studies. Presents strategies for professional written and oral presentations related to application processes. Requires the creation of professional and departmental portfolios. Promotes opportunities for internships, service learning, and other academic or workplace experience.

ENGL 4420
Advanced Fiction Writing WE
3
* Prerequisite(s): ENGL 3420 and University Advanced Standing

Provides advanced instruction in practices and techniques for generating, writing, and revising original short fiction. Focuses on contemporary fiction and critical theories associated with contemporary fiction. Investigates various approaches to fiction writing through a series of readings, writing exercises, and revision assignments. Utilizes the creative writing workshop as the primary method of critical engagement with original fiction writing.

ENGL 4425
Advanced Fiction Writing II
3
* Prerequisite(s): ENGL 4420 and University Advanced Standing

Applies a variety of advanced techniques for writing and especially revising fiction which includes readings in form, theory, and published works, with an emphasis on workshopping, revising, and preparing for publication, public readings, and graduate school.

ENGL 4440
Advanced Poetry Writing WE
3
* Prerequisite(s): ENGL 3440 and University Advanced Standing

Provides advanced instruction in revising, editing, and preparing Creative Nonfiction manuscripts for submissions in well-selected quality venues. Provides practice in finishing work previously shaped in ENGL 3450 and ENGL 4430, with an emphasis on workshopping, revising, and preparing for publication, public readings, and graduate school.

ENGL 4445
Advanced Creative Nonfiction Writing II
3
* Prerequisite(s): ENGL 4450 and University Advanced Standing

Provides advanced instruction in revising, editing, and preparing Creative Nonfiction manuscripts for submissions in well-selected quality venues. Focuses on the production of a final portfolio acceptable for graduate school applications, submissions to appropriate publications, and presenting in readings and other public events. Investigates processes for bridging the gap between generating drafts and moving successfully into the community of active writers.

ENGL 4450
Advanced Creative Nonfiction Writing WE
3
* Prerequisite(s): ENGL 3450 and University Advanced Standing

Explores formal and thematic developments in the American novel. Includes historical, regional, cultural, and theoretical perspectives.
ENGL 463R
Topics in Shakespeare
3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Examines various topics related to Shakespeare's drama and poetry. Discusses relevant cultural and historical aspects of his times. May be repeated for a maximum of 6 credits for graduation with different topics.

ENGL 471R
Eminent Authors
3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Introduces important works of eminent authors. Emphasizes forms of literary expression and their place in the historical development of world literature. Examines relevant cultural and historical aspects of the authors' milieux. May be repeated twice with different topics.

ENGL 473R
Topics in Gender Studies
3
* Prerequisite(s): ENGL 2010, ENGL 2600, and University Advanced Standing
Focuses student reading, research, and discussion on specific areas of concentration within the field of gender studies. Analyzes how gender affects and is affected by culture, ideology, socio-economic factors, history, etc. May be repeated for up to 6 credits toward graduation.

ENGL 474R
Topics in Folklore
3
* Prerequisite(s): (ENGL 2210 or instructor/advisor approval) and University Advanced Standing
Studies one folk genre, one folk group, or one theme which crosses genres and/or groups. Students will collect folklore related to topic under discussion. Uses discussion, readings, folk events, and students' writings. May be repeated twice with different topics.

ENGL 476G
Multi-ethnic Literature in America
3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Surveys multi-ethnic literature, reflecting the rich diversity inherent in the American experience. Includes but is not limited to works by Native American, Hispanic American, Asian American, and African American authors.

ENGL 4790
Literary Studies Capstone
3
* Prerequisite(s): ENGL 3090 and ENGL 3890, both with a grade of C- or higher, Senior Status, University Advanced Standing.
Explores the value and relevance of an English Literary Studies degree. Professionalizes students by assisting them with career or graduate school preparation. Offers students the opportunity to reflect on their major and to optimize writing and communication skills. Includes revision of an existing paper as a scholarly writing sample and creation of an professional portfolio to display knowledge and abilities. Culminates with submission of a reflective portfolio to the department.

ENGL 481R
Internship
1 to 8
* Prerequisite(s): Departmental approval, senior status, and University Advanced Standing
For senior English majors and minors. Internships are intended to offer students opportunities to work with instructors and other professionals on tasks related to the field of English. Students who receive credit for an internship must establish learning objectives with their Faculty Sponsor. The student's internship and reflect on their learning through academic work (i.e., papers, journal, etc.). Students are required to submit an evaluation of their experience at the end of the semester. May be repeated for a maximum of 8 credits toward graduation. May be graded credit/no credit.

ENGL 486R
Topics in Literature
3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Studies topics in literature such as ethics, the environment, war, civil rights, families, marriage, death, politics, adolescence, and immigrant narratives.

ENGL 488H
English Honors Seminar
3
* Prerequisite(s): (ENGL 3090 and ENGL 3890) and University Advanced Standing
Emphasizes rigorous analysis and synthesis of topics in British and American literature, rhetoric, and writing, with specific content varying by semester. Uses a seminar approach to enable significant participation by students through discussion, presentations, and written analyses.

ENGL 490R
Directed Readings
1 to 3
* Prerequisite(s): Department Chair, Instructor Approval, and University Advanced Standing
Reading and writing assignments designed in consultation with a faculty member to meet special needs or interests not available through regular course work. May be repeated two times for a total of up to 9 credits.

ENGL 498H
Honors Thesis Preparation
3
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ENGL 488H
Serves as the first half of the thesis experience for Departmental Honors in English. Reviews and improves students' research methodologies. Requires that students initiate collaboration with one or more instructors in a directed research and writing project. Explores and develops thesis topic in consultation with faculty. Builds on skills and knowledge gained in earlier courses, including research skills in primary and secondary sources, critical thinking, and literary analysis.

ENGL 499H
Honors Thesis
3
* Prerequisite(s): ENGL 489H and University Advanced Standing
Serves as the second half of the thesis experience for English Honors. Operates as an independent study. Continues the research begun in ENGL 498H. Requires students to write a high-quality, publishable/presentable senior thesis. Requires defense of the thesis and its method before a committee of three faculty.

ENGL 5340
Technical Communication Theory and Practice
3
* Prerequisite(s): Acceptance into a Graduate Program or Instructor Approval
Emphasizes the application of technical writing theory through composing a variety of documents commonly used by professionals in technical fields, which may include life sciences, engineering, and pharmacology. Builds off previous work in technical writing classes and/or industry experience to foster a rhetorical foundation for ethical and legal decision making in bureaucratic and global contexts. Stresses critical analysis of successful documents and their place within networks of relevant stakeholders, compliance expectations, and historical restraints. Places further emphasis on managing complex documents and satisfying the needs of diverse audiences. Topics may include: regulatory affairs, environmental hazards, and protocol specification.
Engineering (ENGR)

ENGR 1000 Introduction to Engineering WE 3
Introduces engineering-problem-solving techniques, design processes, modelling of simple engineering systems using CAD, and systems analysis in Excel. Emphasizes engineering design procedures by incorporating group projects and presentations. Course Lab fee of $11 for computers applies. Lab access fee of $45 for computers applies.

ENGR 1020 Survey of Engineering 1
Introduces the various areas of engineering to pre-engineering majors and others interested in learning more about the contributions engineers make to our modern society. Includes a brief history of engineering and discussions about what engineers really do. Discusses professional ethics, responsibilities, and career opportunities. Includes lectures, guest speakers, and in-class exercises. Lab access fee of $45 applies.

ENGR 1030 Engineering Programming 3
* Prerequisite(s) or Corequisite(s): MATH 1210
Involves modelling and analysis of electro-mechanical systems using projects. Applies scientific principles to solve and model engineering problems. Involves developing and writing programs to gather data, guide, and control electro-mechanical devices to achieve predefined objectives. Course fee of $11 for supplies/materials applies. Lab access fee of $45 applies.

ENGR 2010 Engineering Statics 3
* Prerequisite(s): PHYS 2210
Teaches principles of engineering mechanics as applied to bodies at rest. Discusses the concepts of position and force vectors, free body diagrams, equilibrium, center of gravity, centroids, distributed loading, friction, area, and mass moments of inertia. Applies principles learned in the analysis of trusses, frames and machines. Lab access fee of $45 for computers applies. Canvas Course Mats $85/McGraw applies.

ENGR 2030 Engineering Dynamics 3
* Prerequisite(s): ENGR 2010, MATH 1220, and PHYS 2210
Teaches principles of engineering mechanics as applied to bodies in motion. Studies kinematics and kinetics of particles and rigid bodies. Develops the concepts of force and acceleration, work, energy, impulse, momentum, impact, and vibration. Utilizes theory and methodology developed in the solution of practical engineering problems. Lab access fee of $45 for computers applies. Canvas Course Mats $85/McGraw applies.

ENGR 2140 Mechanics of Materials 3
* Prerequisite(s): ENGR 2010 and PHYS 2210
Studies behavior of materials under axial, torsional, flexural, transverse shear and combined loading conditions. Analyzes nature of stress and strain for ductile and brittle materials, stress and strain diagrams, stress concentration, and failure of materials. Includes analysis of repeated and dynamic loading, and basic design techniques related to above topics. Lab access fee of $45 for computers applies. Canvas Course Mats $78/McGraw applies.

ENGR 2160 Introduction to Materials Science and Engineering 3
* Prerequisite(s): CHEM 1210
Introduces students to properties of materials from macro and micro point of view. Includes failure analysis of materials, altering properties of materials, and fracture mechanics. Introduces properties of solid materials and their behavior as applied to engineering. Lab access fee of $45 applies.

ENGR 2300 Engineering Thermodynamics 3
* Prerequisite(s): MATH 1220, PHYS 2210

ENGR 2450 Computational Methods for Engineering Analysis 3
* Prerequisite(s) or Corequisite(s): MATH 2250
Discusses computational and symbolic methods for the solution of complex engineering problems. Discusses computer representation of numbers and algorithm error analysis. Covers the solution of algebraic and differential equations. Includes the use of modern software tools. Lab access fee of $45 for computers applies. Canvas Course Mats $85/McGraw applies.

ENGR 295R Special Topics 1 to 3
* Prerequisite(s): Permission of Department Chair
Presents various engineering topics. Examines current technology, techniques, processes and equipment. Includes oral and written reports. May be repeated for a maximum of 3 credits toward graduation.

Environmental Studies (ENST)

ENST 3000 Introduction to Environmental Studies 3
* Prerequisite(s): University Advanced Standing
Explores the complex relationships of culture, technology, and nature within an interdisciplinary framework of the natural sciences, social sciences, business, and humanities. Addresses the integration of humanity and nature in the age of globalization.

ENST 3100 Environmental Justice 3
* Prerequisite(s): University Advanced Standing
Introduces student to basic environmental justice issues and cases at the national and global level. Teaches basic theories of environmental injustice. Examines root causes and possible solutions to environmental injustice.

ENST 3520 (Cross-listed with: SOC 3520) Environmental Sociology 3
* Prerequisite(s): SOC 1010 and ENGL 2010 with a C+ grade or higher and University Advanced Standing
Explores in detail several different approaches to understanding the social causes of and solutions to environmental degradation. Discusses the development of a wide variety of theory-based critiques of various social institutions (e.g., economic, political, religious) and how these institutions' values can create and perpetuate unsustainable practices.
Course Descriptions

Entrepreneurship (ENTR)

ENTR 2500 Creativity and Entrepreneurial Thinking
3
Introduces the concepts of innovation and entrepreneurial creativity. Draws upon the inspired thinking and entrepreneurial pursuits of leaders in a variety of disciplines in order to understand the process of innovation and appreciate the role of creativity in making innovation possible. Includes topics such as the customer/problem/solution framework, design thinking, prototyping, intellectual property, creative idea development, lead user research methodology, peer feedback, new venture financing, and the lean start-up.

ENTR 3170 Entrepreneurship and Opportunity Validation
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing
Provides an overview of the practice of entrepreneurship and focuses on the role of the entrepreneur in identifying, evaluating and developing opportunities. Considers the application of knowledge of the technical, market, financial and human aspects of a business as they relate to the start-up and development of business opportunities. Lab access fee of $25 for computers applies.

ENTR 3180 Developing Small Business
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing
Provides a practical and theoretical foundation for managing SMEs (small and medium enterprises). Emphasizes identifying, evaluating and developing opportunities for growth. Covers the basic elements of the business focusing on best practices in the technical, market, financial, and human resource aspects of existing small business as well as the interaction between these elements. Covers legal aspects of operating a business.

ENTR 3190 Early-stage Financing
3
* Prerequisite(s): University Advanced Standing
Provides students an overview of financial modeling for entrepreneurship and small business, as well as the sources and processes involved in financing new ventures. Teaches financial management, pro-forma financial statements, cash flow, bootstrapping, and debt and equity financing in an entrepreneurial environment.

ENTR 3220 (Cross-listed with: LEGL 3000) Entrepreneurship Law
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing
For entrepreneurship students and others desiring to start a business. Presents current U.S. legal framework as they concern start-ups and new businesses. Topics include the American legal system, constitutional law, statutory law, common law, and administrative law and alternatives to courts. Discusses crimes, torts, negligence, contracts, negotiable instruments, and contractual relationships.

ENTR 4200 Innovative Opportunity Development
3
* Prerequisite(s): ENTR 3170 and University Advanced Standing
Focuses on the development of both (a) the key value proposition of a product/service offering, and (b) the business entity that provides that offering. Covers the use of client-centered development and design thinking to create, modify and validate business solutions. Emphasizes client feedback from concept through prototype development. Lab access fee of $25 for computers applies.

ENTR 4210 Career Development for Entrepreneurs
3
* Prerequisite(s): ENTR 3170 and University Advanced Standing
Considers the personal and interpersonal development of entrepreneurs and other business professionals. Addresses issues and provides specific guidance in areas such as business and personal financial strategies, business and family interpersonal relationships, networking, human resource management, and professional self-image.

ENTR 4300 The Art of the Pitch
3
* Prerequisite(s): (ENTR 2500 or ENTR 3170) and University Advanced Standing
Teaches entrepreneurial strategic communications skills to help the entrepreneur prepare for and present business ideas to prospective investors, partners, employees and customers. Focuses on skill development in written, visual, verbal and vocal communications to pitch business ideas. Develops confidence and the ability to handle questions regarding presentations. Lab access fee of $25 for computers applies.

ENTR 4400 New Venture Financing
3
* Prerequisite(s): ENTR 3170 and University Advanced Standing
Covers advanced concepts and skills in entrepreneurship/small business management. Emphasizes how new and emerging companies are financed. Applies functional tools to case situations. Lab access fee of $25 for computers applies.

ENTR 4450 Enterprise Formation
3
* Prerequisite(s): ENTR 3170 and University Advanced Standing
Provides an integrated, engaged learning opportunity in entrepreneurship through the development of a business opportunity. Focuses on creating and managing the formation of a business enterprise from the formation of a legal entity to launching a product of service and creating a financial model. Emphasizes documenting the process in a business model and/or a complete business plan.

ENTR 4455 New Venture Consulting
3
* Prerequisite(s): ENTR 3170 and University Advanced Standing
Integrates the identification, evaluation, and/ or development of the small- and medium-sized business opportunities of community-based entrepreneurs. Makes use of an engaged learning opportunity for business students interested in learning how consultants work by consulting with and assisting entrepreneurs. Includes projects that cover and examine all functional areas of business and the interaction between them. Covers consulting processes and strategies as well as provide tools and techniques for developing business models and assessing opportunities.

Topics in Environmental Studies (ENST)

ENST 490R Topics in Environmental Studies
3
* Prerequisite(s): University Advanced Standing
Addresses cross-disciplinary issues within environmental studies. Includes topics that will vary from semester to semester. Addresses topics such as sustainability, climate change or political ecology, in an interdisciplinary way. May be repeated for a maximum of 6 credits toward graduation.

Early-stage Financing (ENTR)

ENTR 3190 Early-stage Financing
3
* Prerequisite(s): University Advanced Standing
Provides students an overview of financial modeling for entrepreneurship and small business, as well as the sources and processes involved in financing new ventures. Teaches financial management, pro-forma financial statements, cash flow, bootstrapping, and debt and equity financing in an entrepreneurial environment.

Entrepreneurship Law (ENTR)

ENTR 3220 Entrepreneurship Law
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing
For entrepreneurship students and others desiring to start a business. Presents current U.S. legal framework as they concern start-ups and new businesses. Topics include the American legal system, constitutional law, statutory law, common law, and administrative law and alternatives to courts. Discusses crimes, torts, negligence, contracts, negotiable instruments, and contractual relationships.

Entrepreneurship and Opportunity Validation (ENTR)

ENTR 3170 Entrepreneurship and Opportunity Validation
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing
Provides an overview of the practice of entrepreneurship and focuses on the role of the entrepreneur in identifying, evaluating and developing opportunities. Considers the application of knowledge of the technical, market, financial and human aspects of a business as they relate to the start-up and development of business opportunities. Lab access fee of $25 for computers applies.

Entrepreneurship and Opportunity Validation (ENTR)

ENTR 3170 Entrepreneurship and Opportunity Validation
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing
Provides an overview of the practice of entrepreneurship and focuses on the role of the entrepreneur in identifying, evaluating and developing opportunities. Considers the application of knowledge of the technical, market, financial and human aspects of a business as they relate to the start-up and development of business opportunities. Lab access fee of $25 for computers applies.

Entrepreneurship and Opportunity Validation (ENTR)

ENTR 3170 Entrepreneurship and Opportunity Validation
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing
Provides an overview of the practice of entrepreneurship and focuses on the role of the entrepreneur in identifying, evaluating and developing opportunities. Considers the application of knowledge of the technical, market, financial and human aspects of a business as they relate to the start-up and development of business opportunities. Lab access fee of $25 for computers applies.

Entrepreneurship and Opportunity Validation (ENTR)

ENTR 3170 Entrepreneurship and Opportunity Validation
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing
Provides an overview of the practice of entrepreneurship and focuses on the role of the entrepreneur in identifying, evaluating and developing opportunities. Considers the application of knowledge of the technical, market, financial and human aspects of a business as they relate to the start-up and development of business opportunities. Lab access fee of $25 for computers applies.

Entrepreneurship and Opportunity Validation (ENTR)

ENTR 3170 Entrepreneurship and Opportunity Validation
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing
Provides an overview of the practice of entrepreneurship and focuses on the role of the entrepreneur in identifying, evaluating and developing opportunities. Considers the application of knowledge of the technical, market, financial and human aspects of a business as they relate to the start-up and development of business opportunities. Lab access fee of $25 for computers applies.

Entrepreneurship and Opportunity Validation (ENTR)

ENTR 3170 Entrepreneurship and Opportunity Validation
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing
Provides an overview of the practice of entrepreneurship and focuses on the role of the entrepreneur in identifying, evaluating and developing opportunities. Considers the application of knowledge of the technical, market, financial and human aspects of a business as they relate to the start-up and development of business opportunities. Lab access fee of $25 for computers applies.
Course Descriptions

**ENTR 493R**
Entreprenurship Lecture Series
1
* Prerequisite(s): University Advanced Standing

Presents lectures by guest speakers on current entrepreneurship issues and topics. Speakers and topics vary each semester. May apply a maximum of 3 credits toward graduation.

**Environmental Management (ENVT)**

**ENVT 1110**
Introduction to Environmental Management
3
Surveys environmental issues and the impact of people on the environment. Covers how we can sustainably use our natural resources and how we can prevent and remediate the degradation of the environment while using these natural resources.

**ENVT 1200**
Environmental Worker Safety
3
Discusses occupational safety and health for environmental management. Prepares students for future health and safety laws and regulation, training requirements, and the hierarchy of safety control. Covers management of a safety program, risk assessment, OSHA compliance, and development of a safety culture.

**ENVT 1270**
Environmental Microbiology
3
* Prerequisite(s): MICR 2060 recommended

Provides an understanding of microbiology tailored to the needs of water managers, public health workers, and environmental managers. Discusses the role microorganisms in water treatment, wastewater treatment, agriculture, environmental change, and others.

**ENVT 1300**
Environmental Lab and Sampling
2
Studies basic laboratory and environmental field techniques used by labs working on environmental projects and in sampling programs within the field. Covers safety, pH, dissolved oxygen, BOD, turbidity, organics, and others. Includes opportunities for undergraduate research. Course Lab fee of $38 for supplies/materials/lab applies.

**ENVT 1510**
Hazardous Materials Emergency Response
3
Meets the requirements for the OSHA 40-hour training. Includes personal protection, identifying hazardous materials, spill control, and incident management. Completers may obtain OSHA certification for handling hazardous materials. Course fee of $28 for materials applies.

**ENVT 2560**
Environmental Health
3
* Prerequisite(s): BIOL 1010 and CHEM 1110 recommended

Addresses environmental health issues for multiple environmental-related degree programs. Benefits students pursuing careers in nursing, biology, and other related fields. Examines infectious and non-infectious diseases, vectors and their control. Discusses the fundamentals of environmental health, water and wastewater management, population pyramid and associated environmental concerns in developed and developing nations. Includes topics of solid and hazardous waste management, recreation safety, air quality and environmental regulations.

**ENVT 2710**
Environmental Careers
1
Explores the career opportunities in environmental areas for students in environmental careers. Covers resumes, letters of inquiry, networking, interviews, and other methods of job seeking.

**ENVT 2730**
Introduction to Soils
4
* Prerequisite(s): ENGL 1010 or ENGH 1005

An introductory course for majors and non-majors. Covers basic topics such as soil classification, soil-water relations, fertility, soil strength, and soil conservation. Offers important background information for those involved in pollution prevention and remediation, environmental monitoring, and home gardening.

**ENVT 3010**
Environmental Toxicology
3
* Prerequisite(s): University Advanced Standing (BIOL 1010 and CHEM 1210 Recommended)

Discusses the history, scope, and importance of environmental toxicology and the toxicokinetic of pollutants in living organism when exposed. Reviews dose response relationships and the role of regulatory toxicology when creating exposure limits for toxicants in the workplace. Examines the fate and movements of toxicants in different compartments in the environment. Provides a knowledge base that is beneficial to environmental health and safety managers and students pursuing careers in nursing, biology, and other related fields.

**ENVT 3210**
Water Quality and Reclamation
3
* Prerequisite(s): CHEM 1210 and University Advanced Standing

Covers identifying and analyzing the major pollutants and parameters related to water quality and remediation. Provides basic training to remediate and mitigate the potential contamination of water sources and how to treat and manage wastewater (i.e. primary treatment, biological treatment, and chemical treatment processes).

**ENVT 3280**
Environmental Law
3
* Prerequisite(s): ENGL 1010 or ENGH 1005 (ENGL 2010 recommended), and University Advanced Standing

Covers the Clean Water Act, the Safe Drinking Water Act, and the Clean Air Act. Reviews the Toxic Substances Control Act, the Resource Conservation and Recovery Act, the Superfund law, DOT regulations, and OSHA regulations.

**ENVT 3290**
Environmental Reporting WE
3
* Prerequisite(s): ENGL 1010 recommended, University Advanced Standing

Covers reporting frameworks and applications for environmental aspects of organizations. Focuses on reporting related to various aspects of environmental initiatives, including carbon, carbon credits, voluntary and mandatory reporting, buildings, products, and others. Introduces software and programs related to environmental reporting. Emphasizes systems thinking and holistic analysis.

**ENVT 3320**
Hydraulics of Water
3
* Prerequisite(s): PHYS 2010 or PHYS 2210; and University Advanced Standing

Prepares students to manage and quantitatively analyze the flow of water; including the use of the continuity equation, Hazen-Williams formula, and the Bernoulli Theorem. Integrates basic principles of engineering and geotechnical techniques with environmental management techniques to aid in the understanding of how to operate water equipment in a professional manner (i.e irrigation techniques, wastewater operation, and water processing).

**ENVT 3330**
Water Resources Management
3
* Prerequisite(s): University Advanced Standing

Examines the broad issues that affect water quality and supply. Covers watershed management, limnology, stormwater management, and wetlands. Discusses the biological and physical processes that occur and the legal constraints that affect management decisions.
Course Descriptions

ENVT 3530
Environmental Management Systems
3
* Prerequisite(s): ENGL 1010 or ENGH 1005 (ENGL 2010 recommended), and University Advanced Standing

Covers the systems and organization necessary to effectively manage environmental issues. Provides background and historical development for continuous process improvement and statistical process control. Discusses the ISO 14001 standard and its effect upon management practices. Introduces students to the National Environmental Protection Act (NEPA) including its processes and strategies for public input.

ENVT 3550
Site Investigation
3
* Prerequisite(s): University Advanced Standing; CHEM 1110 recommended

Covers the investigation and preliminary cleanup of a contaminated site. Includes planning, training, site characterization, sampling, and site control. Completers should have a basic understanding of the process used to remediate an environmentally damaged site.

ENVT 3600
Appropriate Technology and Sustainable Development for the Developing World
3
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Reviews the origins of poverty and the current conditions of people in developing countries. Offers development solutions being pursued around the world. Empowers students to play an active role in international poverty reduction by introducing international development and its challenges. Teaches students how to determine appropriate technologies based on design, physical, and social considerations.

ENVT 3630
Introduction to Geographic Information Systems
4
* Prerequisite(s): University Advanced Standing

Introduces the operation of Geographic Information Systems (GIS). Focuses on GIS software and basic theory of geographic information science. Offers valuable preparation for careers in geography, planning, surveying, marketing, environmental technology, biology, engineering, and other related fields. Lab access fee of $30 for computers applies

ENVT 3700
Current Topics in Environmental Management
3
* Prerequisite(s): University Advanced Standing; ENVT 1110 recommended

Studies local environmental issues, new technologies, and the challenges faced by environmental managers. Issues discussed will vary with the semester. Prepares students for a thoughtful discussion of environmental issues.

ENVT 3750
Land Use Planning
3
* Prerequisite(s): University Advanced Standing; ENVT 3280 recommended

Covers key issues in land use planning and how they affect the environment. Includes multiple use concepts, focused uses, zoning, mapping, and the political processes used in planning. Discusses the importance of strategic planning and public relations.

ENVT 3770
Natural Resources Management
3
* Prerequisite(s): University Advanced Standing; BIOL 1010 recommended

Introduces the management and conservation of natural resources. Discusses forestry, range management, wildlife management, and outdoor recreation. Provides the opportunity for students to learn how to create conservation and research plans that are common in the industry.

ENVT 3790
Applied Hydrology WE
4
* Prerequisite(s): MATH 1060 or MATH 1080 or MATH 1210 or PHYS 1100, GEO 1010, and University Advanced Standing (PHYS 2210 or PHYS 2010 and GIS 3600 Recommended)

Provides the students with a water budget approach to understanding how surface water applies to all aspects of the hydrologic cycle, including interactions with the atmosphere and geosphere. Reviews how surface water resources are managed by analyzing flood frequencies, intensity-duration-frequency curves for rainfall/snowfall, estimation of gauged and ungauged stream locations, stream flow measurement techniques, analyzing consumptive use demands, watershed modeling, legal water rights, water contamination, and risk assessment in hydrologic design. Provides opportunities to investigate a specific problem, field site, and/or service learning project related to hydrology. Course fee of $21 applies.

ENVT 3800
Energy Use on Earth
3
* Prerequisite(s): (PHYS 1010 or PHSC 1000 or GEO 1010 or GEO 2040 or METO 1010) and (MATH 1050 or MATH 1055) and CHEM 1010 and University Advanced Standing

Covers the science of energy production and consumption. Quantitatively analyzes various methods of energy production, distribution, and end use in all sectors of our society, including transportation, residential living, and industry. Examines the impacts of our energy consumption on the environment and prospects for alternative energy sources. Is intended for science majors interested in energy use in society or in an energy related career, and for students in other majors who feel that a technical understanding of energy use will help them to understand and mitigate its impact in our society.

ENVT 3850
Environmental Policy WE
3
* Prerequisite(s): ENVT 1110 and University Advanced Standing

For upper-division students with an interest in environmental policy. Discusses the process by which policies are made and the factors that influence policy formation. Includes political factors, economics, international issues, public awareness and others.

ENVT 482R (Cross-listed with: GEO 482R)
Geologic Environmental Internship
1 to 3
* Prerequisite(s): GEO 1010 or ENVT 1110; 12 credit hours of any GEO, GEOG, or ENVT courses; declared major in any Earth Science program and University Advanced Standing

Engages students in supervised geologic or environmental work in a professional setting. Requires approval by the Chair of the Department of Earth Science. Includes maintaining a journal of student experiences and preparing a paper summarizing their experience. A maximum of 3 credit hours may be counted toward graduation. May be graded Credit/No Credit.

ENVT 495R
Special Projects in Environmental Management
1 to 3
* Prerequisite(s): Instructor Permission and University Advanced Standing

Allows students to pursue undergraduate research projects. Includes instructor directed practical research. Students will prepare a report of their findings. May be repeated for a maximum of 6 credits toward graduation.
Course Descriptions

**Emerg Serv Aircraft Resc FF (ESAF)**

**ESAF 2100**

*Airport Firefighter 3*

Explores the theories and fundamentals associated with airport rescue fire fighting. Addresses safety, operations and agents associated with aircraft rescue and firefighting procedures. Provides an overview of communications, apparatus, tools and equipment specific to the aerospace emergency service delivery.

**ESAF 2110**

*Aircraft Related Mass Casualty Incidents 3*

Involves the planning, response, mitigation and management of a mass casualty incident resulting from a crashed aircraft. Includes issues relating to medical treatment, triage and transportation. Examines how the command structure functions as well as how operations personnel work on the scene of mass casualty incident.

**ESAF 2120**

*Aircraft Mishaps 3*

Teaches how to locate and use past aircraft accident and mishap data from various government agencies in order to develop relevant lesson plans and training courses for emergency responders. Examines how to research and interpret aircraft mishap data to strengthen emergency service agencies involved in aircraft rescue firefighting. Includes developing or reviewing relevant guidelines, protocols, procedures, and training evolutions based on current mishaps and findings.

**ESAF 2140**

*Airport Operations for the Emergency Responder 3*

Provides an understanding of ground operations, communications, layout, movements and functions in order to operate effectively within the boundaries of an airport. Discusses the complex, unfamiliar setting responders face associated with daily operations of an airport.

**Emergency Services Emerg Care (ESEC)**

**ESEC 1013**

*Emergency Medical Response 3*

Prepares students for certification as an Emergency Medical Responder through the Utah Bureau of EMS, National Registry, and American Heart Association-Basic Life Support-Provider. Focuses on assessment and care for patients of all ages with a variety of medical conditions and traumatic injuries prior to the arrival of professional emergency care providers. Includes introduction to emergency medical services systems, roles and responsibilities of Emergency Medical Responders, anatomy and physiology, medical emergencies, trauma, and special considerations for working in the pre-hospital setting. Lab access fee of $84 applies.

**ESEC 1140**

*Emergency Medical Technician Basic 9*

Provides fundamental knowledge of the EMS system to include safety and well-being of the EMT. Includes medical, legal and ethical issues related to emergency care. Teaches entry level cognitive and kinesthetic skills including; medical and trauma assessment, basic pharmacology and EMS operations. Prepares students for certification as an Emergency Medical Technician-Basic through the Utah Bureau of EMS. Course lab fee of $147 applies.

**ESEC 114A**

*Emergency Medical Technician-Part I 3*

*Corequisite(s): ESEC 114B and ESEC 114C*

Applies fundamental knowledge of the EMS system, safety and well-being of the EMT, medical and legal and ethical issues to the provision of emergency care. Prepares students for certification as an Emergency Medical Technician-Basic through the Utah Bureau of EMS. First of three courses required for EMT-Basic certification. May be delivered online.

**ESEC 114B**

*Emergency Medical Technician-Part II 4*

*Corequisite(s): ESEC 114A and ESEC 114C*

Provides background information and knowledge about EMT kinesthetic skills, including medical assessments, trauma assessment, pharmacology, special patient populations, and EMS operations.

**ESEC 114C**

*Emergency Medical Technician-Part III 2*

*Corequisite(s): ESEC 114A and ESEC 114B*

Demonstrates mastery of kinesthetic skills, including medical assessments, trauma assessment, pharmacology, special patient populations, and EMS operations. Course lab fee of $71 applies. Course lab fee of $143 for FISDAP study tools applies.

**ESEC 3060**

*Emergency Medical Technician-Advanced 9*

*Prerequisite(s): EMT Level Certification and University Advanced Standing*

Prepares students for certification as an Emergency Medical Technician-Advanced through the Utah Bureau of EMS. Includes Life span development, advanced airway management, intravenous access, medication administration, cardiac rhythm interpretation and other advanced medical skills. Course lab fee of $126 for supplies applies. Course fee of $62 for certification materials applies.

**ESEC 3210**

*Paramedic I-Operations 3*

*Prerequisite(s): Matriculated into Paramedic Program and University Advanced Standing*

Reinforces concepts and clinical skills students previously learned at the EMT level. Introduces advanced concepts in EMS Systems, illness and injury prevention, medical-legal issues, anatomy, physiology, pathophysiology, scene leadership and incident management for the paramedic. Course fee of $418 applies.

**ESEC 3220**

*Paramedic II-Cardiac and Respiratory Patient Care 3*

*Prerequisite(s): Matriculated into the paramedic program and University Advanced Standing*

*Corequisite(s): ESEC 3225*

*Prerequisite(s) or Corequisite(s): ESEC 3210*

Reinforces concepts and clinical skills students previously learned at the EMT level. Introduces advanced concepts in Cardiology, Airway Management, Respiratory Distress and Resuscitation. Identifies patient assessment and management within the paramedic scope of care. Course fee of $7 applies.
ESEC 3225
Paramedic II Lab-Cardiac and Respiratory Emergencies
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): ESEC 3220
Reinforces concepts and clinical skills discussed in ESEC 3220. Emphasizes patient assessment, airway management, cardiac care, pathophysiology, pharmacology, critical decision-making skills, and appropriate interventions while caring for cardiac, respiratory, or resuscitation emergencies. Assessment, management, and evidenced based practices will be applied. Course fee of $123 applies.

ESEC 3230
Paramedic III-Trauma Patient Care
3
* Prerequisite(s): Matriculated into the paramedic program and University Advanced Standing
* Corequisite(s): ESEC 3235
* Prerequisite(s) or Corequisite(s): ESEC 3210
Reinforces and expands upon the materials and clinical skills learned as an EMT. Integrates prior learning with enhanced advanced life support concepts and skills. Emphasizes patient assessment and recognition of significant findings, differential diagnoses and treatment strategies for trauma patients. Course fee of $46 applies.

ESEC 3235
Paramedic III Lab-Trauma Emergencies
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): ESEC 3230
Reinforces concepts and clinical skills discussed in ESEC 3230. Emphasizes patient assessment, airway management, pathophysiology, pharmacology, critical decision-making skills, and appropriate interventions during traumatic emergencies. Assessment, management, and evidenced based practices will be applied. Course lab fee of $85 applies.

ESEC 3240
Paramedic IV-Medical and Geriatric Patient Care
3
* Prerequisite(s): Matriculated into the paramedic program and University Advanced Standing
* Corequisite(s): ESEC 3245
* Prerequisite(s) or Corequisite(s): ESEC 3210
Reinforces and expands upon the materials and clinical skills learned as an EMT. Integrates prior learning with enhanced advanced life support concepts and skills. Emphasizes patient assessment and recognition of significant findings, pre-hospital diagnosis and differential diagnosis, and treatment strategies for medical and geriatric patients. Course fee of $54 applies.

ESEC 3245
Paramedic IV Lab-Medical Emergencies
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): ESEC 3240
Reinforces concepts and clinical skills discussed in the ESEC 3240. Emphasizes patient assessment, airway management, pathophysiology, pharmacology, critical decision-making skills and appropriate interventions while caring for medically emergent patients. Assessment, management, and evidenced based practices will be applied. Course lab fee of $11 applies.

ESEC 3250
Paramedic V-Obstetric and Pediatric Patient Care
3
* Prerequisite(s): Matriculated into the paramedic program and University Advanced Standing
* Corequisite(s): ESEC 3255
* Prerequisite(s) or Corequisite(s): ESEC 3210
Reinforces and expands upon the materials and clinical skills learned as an EMT. Integrates prior learning with enhanced advanced life support concepts and skills. Emphasizes patient assessment and recognition of significant findings, pre-hospital diagnosis and differential diagnosis, and treatment strategies for obstetric and pediatric patients. Course fee of $216 applies.

ESEC 3255
Paramedic V Lab-Obstetric and Pediatric Emergencies
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): ESEC 3250
Reinforces concepts and clinical skills discussed in the ESEC 3250. Emphasizes patient assessment, airway management, pathophysiology, pharmacology, critical decision-making skills, and appropriate interventions while caring for patients with obstetric and pediatric emergencies. Assessment, management, and evidenced based practices will be applied. Course fee of $45 applies.

ESEC 4150
Critical Care Emergency Medical Transport Program
6
* Prerequisite(s): Department Approval and University Advanced Standing
Brings paramedics and nurses together in an effort to bridge the gap between pre-hospital and hospital care. Preparers specialized care providers to have an understanding of both aspects of patient care, and to use that understanding to provide a higher level of care to critical patients during transport. Designed to prepare paramedics and nurses to function as members of a critical care transport team. Offers an understanding of the special needs of critical patients during transport, become familiar with the purpose and mechanisms of hospital procedures and equipment, and develop the skills to maintain the stability of hospital equipment and procedures during transport.

ESEC 4210
Paramedic VI-Research
2
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ESEC 3240, ESEC 3245
Provides opportunity to apply previously learned knowledge and skills in on-line scenario activities, research current EMS trends, as well as recognition assignments for clinical site preceptors.

ESEC 4220
Paramedic VII-Clinical Internship Hospital and Field Phase I and II
4
* Prerequisite(s): ESEC 3250, ESEC 3255 and University Advanced Standing
Provides the paramedic student with an opportunity to apply previously learned knowledge and skills while in a supervised clinical setting. Rotations include: Emergency Departments, Medical/Surgical Intensive Care Units, Labor and Delivery, Psychiatric, and Prehospital experiences with field-based internships. Course lab fee of $60 applies.

ESEC 4230
Paramedic VIII-Practical Preparation and Testing
3
* Prerequisite(s): ESEC 3210, ESEC 3220, ESEC 3225, ESEC 3230, ESEC 3235, ESEC 3240, ESEC 3245, ESEC 3250, ESEC 3255, and University Advanced Standing
* Prerequisite(s) or Corequisite(s): ESEC 4210, ESEC 4220
Provides practical and small group lecture activities using current assessment and treatment techniques for cardiac, multiple system trauma, medical, and pediatric victims. Reinforces patient priority assessment and management concepts needed for successful patient outcomes. National Registry psychomotor preparation and testing included. Course lab fee of $101 applies.
Course Descriptions

ESEC 4240
Paramedic Capstone
3
* Prerequisite(s): ESEC 3210, ESEC 3220, ESEC 3225, ESEC 3230, ESEC 3235, ESEC 3240, ESEC 3245, ESEC 3250, ESEC 3255, and University Advanced Standing
* Prerequisite(s) or Corequisite(s): ESEC 4210, ESEC 4220, ESEC 4230

Provides opportunity to practice as a paramedic providing pre-hospital care for emergent and non-emergent patients. Integrates knowledge, behavior and skills from previous courses, labs and internships. Prepares students for national certification exam. Course fee of $19 applies.

Emergency Services
(ES)

ES 1150
Introduction to Emergency and Disaster Management
3
Examines emergency and crisis preparedness for the individual, family, and community as practiced at the state, national and international levels. Explores prevention and disaster recovery strategies against all hazards threats to home, neighborhood and community whether natural or human caused.

ES 1160
Responders Role in Emergencies and Disasters
3
* Prerequisite(s) or Corequisite(s): (ENGL 1010 or ENGH 1005) or department permission

Prepares emergency services students to respond effectively in both day-to-day emergency circumstances as well as extreme disasters. Examines the theory and skills to effectively handle emergency operations and deal with people in the context of emergencies. This course will be offered as a hybrid or online course.

ES 1170
Citizen Role in Emergencies and Disasters
3
* Prerequisite(s): ENGL 1010 or ENGH 1005 recommended

Designed for students of emergency management and volunteer private agencies. Discusses disaster preparedness, planning, and mitigation. Extends the discussion of the public role in emergencies and disasters to disaster response and recovery. Describes the variety of actions taken by individuals, private and voluntary organizations, first responders, and government agencies in response to a disaster and to assist in recovery.

ES 2130
Terrorism and the Emergency Services
3
* Prerequisite(s): ENGL 1010 or ENGH 1005

Deals with the threats associated with terrorism as they relate to emergency service response. Examines past acts of terror along with present and future threats and their connection to emergency services planning and response. Identifies various aspects of security and control in correlation to the emergency response operations.

ES 2210
Community Mitigation Response and Recovery
3
* Prerequisite(s): ENGL1010 recommended

Provides an introduction to emergency management for community members, emergency service volunteers, and future disaster relief workers. Prepares them with the knowledge and the skills to allow them to work in emergency services in government or non-profit agencies. Introduces emergency management principles, doctrines and authorities, emergency management functions and capabilities, and the integrated emergency management system. Addresses the coordination of various systems, networks, and agreements among various governmental and other organizations under the National Incident Management System (NIMS).

ES 2220
Resiliency and Vulnerability in Crises
3
* Prerequisite(s): ENGL 1010 or ENGH 1005 recommended

Expands the knowledge of disasters so that students of emergency management, volunteers, and community members understand the nature of multiple hazards, both man-made and natural, and are aware of their impact on vulnerable populations. Presents risk management tools to assist in mitigating, planning and preparing for disasters.

ES 2230
Non-profit Organizations and Volunteerism
3
* Prerequisite(s): ENGL1010 recommended

Improves participant abilities to deal with a broad range of issues in the management of volunteer. Covers publicity and recruitment, skill development and maintenance, and motivation strategies to promote continued involvement and quality performance. Addresses the planning and operations of an effective donations management system, and explores the coordination of state and local government and representatives of Voluntary Organizations Active in Disaster (VOAD) when working with undesignated and spontaneous volunteers during a disaster.

ES 290R
Special Topics in Emergency Services
1 to 3
Provides students the opportunity to study special topics in emergency services. Requires students to identify emergency service topics and evaluate their application to emergency services. Calls for the creation of a research paper, presentation, academic report, or a significant project. May be repeated for a maximum of 6 credits toward graduation.

Emergency Services
Firefighter (ESFF)

ESFF 1000
Introduction to Emergency Services
4
Explores career opportunities and job requirements of fire and rescue emergency services. Discusses the various duties within emergency services, including structural fire fighting, wildland fire fighting, technical rescue, hazardous materials control, fire protection, fire investigations, and incident command. Explains the employment testing and selection processes of federal, state, municipal, and industrial emergency service organizations. Provides information, skills, and facilities to help students develop personal fitness plans in preparation for fire service physical ability testing. Course fee of $30 for computers applies.

ESFF 1010
Firefighting Fundamentals I
3
* Corequisite(s): ESFF 1210

Discusses the history and background of the fire service. Teaches terms, definitions, and concepts of NFPA 1001 Professional Qualifications for Firefighters Level I. Includes fire behavior, ventilation rescue, forcible entry, ladders, ropes and knots, self-contained breathing apparatus, firestreams, fire hose, salvage, overhaul, fire suppression techniques, communications, fire sprinklers, and fire inspection. Course fee of $20 for state services & testing applies.

ESFF 1120
Principles of Fire and Emergency Services Safety and Survival
3
Introduces the basic principles and history that relate to the 16 national firefighter life safety initiatives. Focuses on the need for cultural and behavioral change related to health and safety throughout the fire and emergency services profession. Develops professional written communication skills as well as introduces the basics of research.
ESFF 1210 Firefighting Skills I
4
* Corequisite(s): ESFF 1010
Teaches basic manipulative skills according to NFPA 1001 Firefighter Professional Standards, Level 1. Includes using forcible entry tools, using self-contained breathing apparatus, tying knots and using ropes, handling salvage covers, utilizing hose nozzles and appliances, manipulating ladders, ventilation practices, search for and removal of victims, sprinkler operations, initiating emergency response, and safety procedures. Students are required to furnish their own approved firefighter safety clothing as follows: gloves, boots, helmet, and hood. Course fee of $95 for specialized clothing and materials applies.

ESFF 1220 Firefighting Fundamentals and Skills II
3
* Prerequisite(s): ESFF 1010 or Departmental approval
Teaches intermediate skills as described in NFPA 1001 Level II. Builds upon the basic skills taught in ESFF 1010 and introduces new skills and knowledge in water supplies, portable extinguisher practices, inspection techniques, and rescue operations. Course fee of $100 for specialized clothing and materials applies.

ESFF 1340 Hazardous Materials First Responder
3
* Prerequisite(s): ESFF 1000 or department approval
Addresses the Hazardous Materials First Responder requirements of NFPA 470 and 29 CFR 1910.120. Includes definitions and classes of hazardous materials; physiological and toxicological considerations; DOT, UN and NFPA 704 labeling and placarding systems; container types and container identification. Features incident size-up using the DOT Emergency Response Guide, use of personal protective equipment and decontamination procedures. Prepares the participant to certify at both the Hazardous Materials Awareness and Operations levels. Course fee of $119 for materials, state services & testing applies.

ESFF 1360 Recruit Candidate Academy Internship
3
* Prerequisite(s): ESFF 250A, ESFF 250B, and department approval
Provides an opportunity to apply knowledge, skills, and abilities learned in a realistic environment. Emphasizes work ethic, attitude, and abilities, while experiencing the fire service as a fully integrated member of a fire company in a career fire department. Establishes the importance of work ethic, attitude, and ability to adapt to highly stressful and sometimes dangerous situations. May be graded credit/no credit. Course lab fee of $200 for specialized clothing and materials applies.

ESFF 1370 Fundamentals of Apparatus Operation
3
Provides basic information on driving and operating a variety of fire apparatus by meeting the knowledge requirements as listed in NFPA 1000 Professional Qualifications for Fire Apparatus Driver Operator. Includes fire pump operation, emergency driving techniques, regulations and laws, fire ground operations, apparatus maintenance and testing procedures.

ESFF 1380 Fire Apparatus Skills
3
Teaches manipulative skills as described in Firefighter Professional Qualification Standard NFPA 1002. Includes fire apparatus operation, defensive driving, emergency driving techniques, and equipment care and maintenance. Emphasizes hands-on lab activities. Course fee of $55 for transportation, state services & testing applies.

ESFF 2100 Servant-Leadership for the Emergency Services
3
* Prerequisite(s): ENGL 1010 or ENGH 1005
Explores the aspiring and current emergency services learner's desire to serve and relates it to the theoretical constructs and characteristics of servant leadership. Discusses the roles and responsibilities of leadership/followership, internal and external, associated with the emergency services. Develops basic leadership/followership traits, based upon the philosophy of servant leadership.

ESFF 2410 Hazardous Materials Technician Fundamentals
3
* Prerequisite(s): ESFF 1340
Teaches the knowledge requirements of NFPA 470, and CFR 1910.120 regulation for a Hazardous Materials Technician. Includes emergency response plans, classification of materials, ICS roles, personnel protective equipment needs, masks, containment and confinement concepts, decon requirements, termination concepts, toxicological and chemical terms and definitions.

ESFF 2420 Hazardous Materials Technician Skills
2
* Prerequisite(s): ESFF 2410
Presents the manipulative skill requirements of NFPA 470, and CFR 1910.120 regulation for a Hazardous Materials Technician. Teaches handling simulated incidents, classifying materials, performing in ICS roles, using personnel protective equipment, containment and confinement operations, setup up and operating decon, skiing, plugging, and patching operations. Course fee of $55 for specialized clothing, state services & testing applies.

ESFF 2430 Hazardous Materials Chemistry
3
Presents in-depth chemical information for hazardous materials responders. Teaches basic knowledge of how to evaluate potential hazards and behaviors of hazardous materials. Provides the underlying reasons for chemical reactions of hazardous materials. Includes decision-making abilities, safe operations, and handling. Course fee of $40 for specialized clothing, materials applies.

ESFF 250A Firefighter Recruit Candidate Academy I
8
* Prerequisite(s): Matriculated into the Recruit Candidate Academy or Department approval
Addresses the first part of the cognitive and psychomotor requirements of Firefighter I and Firefighter II certification. Includes basic firefighting topics and related skills, including fire behavior, building construction, personal protective equipment, tools, appliances, firefighter safety, forcible entry, and apparatus. Prepares students to certify at the Fire Fighter I and Fire Fighter II levels.

ESFF 250B Firefighter Recruit Candidate Academy II
8
* Prerequisite(s): Matriculated into the Recruit Candidate Academy or Department approval
* Prerequisite(s) or Corequisite(s): ESFF 250A
Addresses the second part of the cognitive and psychomotor requirements of Firefighter I, Firefighter II, and Hazardous Materials Awareness and Operations certification. Includes basic firefighting topics and related skills. Addresses the Hazardous Materials First Responder requirements of NFPA 470 and 29 CFR 1910.120. Includes definitions, classes of hazardous materials, physiological and toxicological considerations, and labeling and placarding systems. Prepares students to certify at the Fire Fighter I, Fire Fighter II, and Hazardous Materials Awareness and Operations levels.

ESFF 2700 Technical Rescue Principles
3
For those with limited fire and emergency services training. Addresses the prerequisite knowledge and skills for technical rescue job performance. Applies the Incident Command System to the management of technical rescue operations, resources and hazards. Includes search and rescue techniques, victim care and extrication, and the use of ropes and rigging. Course fee of $70 for equipment, materials applies.
Course Descriptions

ESFF 2710
Environmental Rescue
3
* Prerequisite(s): ESFF 1220
Includes analysis and simulation of problems such as wilderness search and rescue, still and swift water rescue, avalanche and mountain rescue. Discusses disaster planning and management as well as rescues from the work place and industrial settings. Course fee of $70 for specialized clothing, materials, and transportation applies.

ESFF 2730
Rope Rescue
3
* Prerequisite(s): ESFF 1340; or departmental approval
Meets the rope rescue job performance requirements of NFPA 1006, Standard for Rescue Technician Professional Qualifications. Addresses various types and configurations of rope rescue systems. Includes compound mechanical advantage systems, rescuer suspension systems, high-angle and vertical victim rescue systems, construction and operation of highline systems, and ascent/ decent procedures. Course fee of $70 for equipment, materials applies.

ESFF 281R
Emergency Services Internship
1 to 6
* Prerequisite(s): Department approval
Provides a paid or unpaid, on-the-job work experience that includes faculty, peer and/or employer evaluations. Includes on-site work visits when appropriate, written assignments, and oral presentations if required. Provides experience in writing and completing individualized work objectives and/or projects that improve present work performance. May require student advocate services to current students. May be repeated for a maximum of 6 credits towards graduation. May be graded credit/no credit.

Emergency Services Fire Officer (ESFO)

ESFO 1110
Fire Prevention
3
Provides fundamental information regarding the history and philosophy of fire prevention. Introduces the organization and operation of a fire prevention bureau. Covers the use of fire codes, identification and correction of fire hazards. Discusses the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education.

ESFO 1350
Fire Protection Hydraulics and Water Supply
3
Introduces basic mathematical operations, including fractions, decimals, percentages, measurements, statistics, graphs, formulas and equations. Completers should be able to apply mathematical skills in solving basic fire service hydraulic and water supply problems.

ESFO 2020
Incident Command
3
* Prerequisite(s): ESFF 1000 or sufficient emergency services work experiences.
Presents the basic principles of managing an emergency scene through the utilization of an incident command system for simple single unit, to complex multi unit response. Requires use of personnel, equipment, and additional resources to manage an incident by completing a size-up, analyze, develop and implement an action plan, maintain on scene accountability of personnel and resources by following IMS principles. Meets the incident command requirements for Fire Officer I, Fire Officer II, NFPA 1021, Presidential Directive #5, and NIMS compliance.

ESFO 2030
Fire Inspector I
3
* Prerequisite(s): ESFF 1000 or sufficient emergency services work experiences.
For Fire Science and Building Inspection Technology students. Addresses the principles of fire inspection and application of the International Fire Code. Topics include identification of fire hazards, fire prevention measures, inspection techniques, and pre-fire planning. Includes classroom discussion and actual inspections of both under-construction and occupied buildings. Successful completers should be prepared to attain Fire Inspector I certification. Course fee of $80 for state services & testing, materials applies.

ESFO 2050
Fire Protection and Detection Systems
3
* Prerequisite(s): ESFF 1000 or sufficient emergency services work experiences.
Teaches students to become familiar with the various types of fire protection and detection systems. Explains how each type of system functions, where such systems are required by code and how the various systems are serviced and maintained. Course fee of $17 for materials applies.

ESFO 2080
Building Construction for the Fire Services
3
* Prerequisite(s): ESFF 1000 or sufficient emergency services work experiences.
For second year Fire Science students. Explores components of building construction that relate to fire and life safety. Explains construction and design factors to be considered during fire inspections, pre-fire planning and fire fighting operations. Emphasis is placed on firefighter safety.

ESFO 2100
Fire Officer I Supervision and Leadership
3
* Prerequisite(s): ESFF 1000 or sufficient emergency services work experiences.
For second year Fire Science students and experienced firefighters. Addresses the NFPA requirements for Fire Officer I. Discusses human resource management, community and government relations, application of fire department policies, fire investigation procedures, emergency service delivery and safety considerations. Completers should be prepared to certify as Fire Officer I. Course fee of $40 for state services & testing applies.

ESFO 2110
Fire Instructor I and II
3
* Prerequisite(s): ESFF 1000 or sufficient emergency services work experiences.
Teaches the NFPA 1041 requirements for Instructor I and II. Includes job factors that influence teaching, developing behavior objectives and lesson plans, organizing the learning environment, methods of instruction, training aids, and principles of testing and evaluations. Lab activities include classroom presentations, preparing audiovisuals, and developing objectives. Course fee of $83 for state services & testing, materials applies.
Course Descriptions

ESFO 211A
Fire Service Instructor I
1
* Prerequisite(s): ESFF 1000 or sufficient emergency services work experiences.

For second year Fire Science students. Addresses the knowledge and skills required to deliver a training lesson from a prepared outline and instructor's guide. Includes psychology of learning, instructional techniques, instructional media, evaluation techniques, and legal considerations. Completers should be prepared to instruct a fire service audience and certify as Fire Service Instructor I. Course fee of $43 for state services & testing, materials applies.

ESFO 211B
Fire Service Instructor II
2
* Prerequisite(s): ESFO 211A or Departmental Permission

For those who have already completed ESFO 211A or attained Fire Service Instructor I certification. Explores job factors that influence teaching, developing behavior objectives and lesson plans, organizing the learning environment, methods of instruction, training aids, and principles of testing and evaluations. Completers should be able to prepare and conduct classroom presentations, prepare audiovisual materials and equipment, and be prepared to certify as Fire Service Instructor II. Course fee of $40 for state services & testing applies.

ESFO 2200
Fire Officer II
3
* Prerequisite(s): ESFF 1000 or sufficient emergency services work experiences.

Addresses the administrative skills and abilities required for Fire Officer II certification. Includes occupational health and safety concepts, injury prevention, risk management, application of departmental policies and procedures, preparation of budget requests, preparation of news releases, and preparation and maintenance of departmental records and reports.

ESFO 2310
Fire Investigator I
3
* Prerequisite(s): ESFF 1000 or sufficient emergency services work experiences.

Presents basic requirements for fire investigators as found in NFPA 1033. Includes scene examination, documenting the scene, evidence collection and preservation, interviewing techniques, post incident investigation and presenting investigation findings.

ESFO 2320
Fire Investigator II
3
* Prerequisite(s): ESFO 2310 or Departmental Approval

Presents advanced skills for fire investigators. Explores all aspects of the investigative process, scene documentation, advance collection tools and evidence preservation, advanced investigative techniques, case preparation, presenting findings in a legal/court proceeding.

ESFO 2330
Public Fire Education I
2
* Prerequisite(s): ESFF 1000 or sufficient emergency services work experiences.

Teaches professional qualifications of NFPA 1035. Identifies fire risks and problems in a community. Teaches selecting, designing, and implementing fire prevention and education programs.

ESFO 2400
Fire Officer Work Experience
3
* Prerequisite(s): ESFO 2020 and ESFO 2200

Provides an opportunity for students to complete the Fire Officer II work place performance requirements of NFPA 1021, Standard for Fire Officer Professional Qualifications. Under the supervision of an experienced fire officer, requires meeting performance objectives in areas of human resource management, community relations, governmental relations, inspection procedures, investigation procedures, emergency service operations, emergency services planning and personnel safety procedures, through a non-paid work experience.

ESL 0100
Basic English Language Immersion
12
* Prerequisite(s): Department Approval

For beginning ESL students, with little or no previous English experience. Integrates essential language tools and skills-reading, writing, listening, speaking, and vocabulary-needed to perform basic communicative tasks. Emphasizes building a learning community within the classroom. Includes lecture, discussion, collaborative class work, and outside experience with native English speakers.

ESL 0810
Beginning Listening/Speaking Level I
4
* Prerequisite(s): Department Approval

For students whose native language is other than English with little or no previous English learning experience. Explores use of simple statements, questions, and commands. Develops vocabulary on concrete topics. Provides listening opportunities in a variety of contexts. Introduces concepts of pronunciation, intonation, and stress. Includes weekly use of the ELL Language Lab where beginning listening skills are emphasized. Focuses on communicative interaction with classmates and authentic conversation practice with native English speakers.

ESL 0820
Beginning Reading and Writing Level I
5
* Prerequisite(s): Department Approval

For beginning ESL students, with little or no previous English experience. Teaches basic competence and fluency in reading and writing. Focuses on reading fluently with meaningful comprehension and natural vocabulary acquisition. Covers writing sentences and short paragraphs on familiar topics. Includes weekly use of the ELL computer lab to practice reading and writing skills.

ESL 0821
Beginning Reading Level I
4

For students whose native language is other than English. Focuses on reading skills, specifically essential phonetic skills needed to decode English words and sounds. Studies comprehension of main ideas of short academic texts, examines plots from simple novels, and develops acquisition of basic interpersonal vocabulary though context cues and English dictionary usage. Encourages reading for pleasure and for information.

ESL 0825
Beginning Vocabulary Level I
4
* Prerequisite(s): Department Approval

For beginning ESL students, with little or no previous English experience. Teaches a 1000-word vocabulary necessary for English survival. Explores vocabulary in context around relevant themes, focusing on communicative practice.

ESL 0830
Beginning Writing Level I
5

For students whose native language is other than English. Introduces English writing conventions including idea development, organization, grammar usage, and editing. Explains construction of simple and compound sentences into short paragraphs. Includes weekly use of the ELL computer classroom where beginning writing skills are emphasized and practiced.
Course Descriptions

ESL 0840
Beginning Grammar Level I
5
* Prerequisite(s): Departmental Approval
For students whose native language is other than English with little or no English experience. Focuses on helping students recognize beginning grammar structures and correctly incorporate them into their speech and writing. Introduces correct word order, simple verb tenses, irregular and helping verbs, question formation, adverbs of frequency, pronouns and articles.

ESL 0910
High-Beginning Listening/Speaking Level II
4
* Prerequisite(s): Department Approval
For students whose native language is other than English with some previous English experience. Explores use of simple statements, questions, and commands. Develops vocabulary on concrete topics. Provides listening opportunities in a variety of contexts. Introduces concepts of pronunciation, intonation, and stress. Includes weekly use of the ELL Language Lab where beginning listening skills are emphasized. Focuses on communicative interaction with classmates and authentic conversation practice with native English speakers.

ESL 0911
High-Beginning Pronunciation Level II
1
* Prerequisite(s): Departmental Approval
For high-beginning ESL speakers with some previous English experience. Introduces phonetic alphabet for corresponding English alphabet sounds. Focuses on pronunciation of individual sounds along with how to produce naturally sounding syllables, words, and sentences through intonation, stress and linking.

ESL 0920
High-Beginning Reading Level II
4
* Prerequisite(s): Department Approval
For students whose native language is other than English. Studies comprehension of main ideas and details of short academic texts, examines literary themes and plots from simple novels, and develops basic interpersonal vocabulary as well as some academic vocabulary though context cues and English dictionary usage. Encourages reading for pleasure and for information. Introduces students to academic and job-related reading skills.

ESL 0930
High-Beginning Writing Level II
5
* Prerequisite(s): Department Approval
For students whose native language is other than English. Introduces English writing conventions including pre-writing, idea development, organization, genre style, word choice, applied grammar usage, editing, and technical accuracy. Explains construction of simple and complex sentences into well-formed paragraphs. Includes weekly use of the ELL Computer Classroom where beginning writing skills are emphasized and practiced.

ESL 0940
High-Beginning Grammar Level II
5
* Prerequisite(s): Department Approval
For students whose native language is other than English. Focuses on helping students recognize high-beginning grammar structures and correctly incorporate them into their speech and writing. Focuses on verb tenses, irregular and helping verbs, question formation, adverbs of frequency, pronouns, and articles.

ESL 1210
Low-Intermediate Listening/Speaking Level III
4
* Prerequisite(s): Department Approval
For students whose native language is other than English. Expands use of simple statements, questions, and commands on familiar topics to academic conversations and lectures. Develops vocabulary on concrete and abstract topics. Studies low-intermediate concepts of pronunciation, intonation, stress, and reductions. Includes weekly use of the ELL Language Lab where low-intermediate listening skills are emphasized and practiced.

ESL 1211
Low-Intermediate Pronunciation Level III
1
* Prerequisite(s): Departmental Approval
For low-intermediate ESL speakers with previous English experience. Introduces International Phonetic Alphabet symbols that correspond to American English alphabet sounds. Focuses on pronunciation of individual sounds along with how to pronounce naturally sounding syllables, words, and sentences through intonation, stress, and linking.

ESL 1220
Low-Intermediate Reading Level III
4
* Prerequisite(s): Department Approval
For students whose native language is other than English. Studies comprehension of main ideas and supporting details, acquisition of intermediate vocabulary through context and utilizing American English dictionaries. Focuses on interpreting literary themes and analyzing academic and literary texts. Encourages reading for pleasure and for information.

ESL 1230
Low-Intermediate Grammar Level III
5
* Prerequisite(s): Department Approval
For students whose native language is other than English. Studies low-intermediate English writing conventions including pre-writing, idea development, organization, word choice, and editing for organization and grammatical accuracy. Focuses on short academic writing tasks that culminate into a multi-paragraph essay. Includes weekly use of the ELL Computer Classroom where low-intermediate writing skills are emphasized and practiced.

ESL 1240
Low-Intermediate Grammar Level III
5
* Prerequisite(s): Department Approval
For students whose native language is other than English. Studies low-intermediate English grammar usage in written and verbal speech. Focuses on verb tenses, phrasal verbs, modals, question formation, pronouns, and sentence connectives.

ESL 1260
Intermediate Listening/Speaking Level IV
4
* Prerequisite(s): Department Approval
For students whose native language is other than English. Expands use of statements, questions, and commands on familiar topics to academic conversations and lectures. Develops vocabulary on concrete and abstract topics. Studies low to high intermediate concepts of pronunciation, intonation, stress, and reductions. Includes weekly use of the UVU Language Lab where intermediate listening skills are emphasized and practiced.

ESL 1261
Intermediate Pronunciation IV
1
* Prerequisite(s): Departmental Approval
For intermediate ESL speakers with previous English experience. Introduces International Phonetic Alphabet symbols that correspond to American English phonemes. Focuses on pronunciation of individual sounds along with how to pronounce naturally sounding syllables, words, and sentences through intonation, stress, and linking.

ESL 1270
Intermediate Reading Level IV
4
* Prerequisite(s): Department Approval
For students whose native language is other than English. Studies comprehension of main ideas and supporting details, acquisition of intermediate vocabulary through context and utilizing American English dictionaries, interpreting literary themes, and critically analyzing academic and literary texts. Encourages reading for pleasure and for information.
ESL 1280
Intermediate Writing Level IV
5
* Prerequisite(s): Department Approval
For students whose native language is other than English. Studies intermediate English writing conventions such as pre-writing, idea development, organization, word choice, and editing work for grammatical accuracy. Focuses on writing well written paragraphs that evolve into essays. Includes weekly use of the ELL computer lab where intermediate writing skills are emphasized and practiced.

ESL 1290
Intermediate Grammar Level IV
5
* Prerequisite(s): Department Approval
For students whose native language is other than English. Studies intermediate English grammar usage in written and verbal speech. Focuses on parts of speech, verb tenses, nouns, comparisons, modals, adjectives, adjective clauses, infinitives, and the passive construction.

ESL 1310
High-Intermediate Listening/Speaking Level V
4
* Prerequisite(s): Department Approval
For students whose native language is other than English. Explores listening strategies for academic news programs and academic lectures. Emphasizes active participation in academic and social conversations. Develops ability to give academic presentations. Studies high-intermediate concepts of pronunciation, intonation, stress, and reductions. Includes weekly use of the UVU Language Lab where high-intermediate listening skills are emphasized and practiced.

ESL 1311
High-Intermediate Pronunciation Level V
1
* Prerequisite(s): Departmental Approval
For high-intermediate ESL speakers with previous English experience. Introduces and reviews phonetic alphabet for corresponding English alphabet sounds. Focuses on pronunciation of individual sounds along with how to produce naturally sounding syllables, words, and sentences through intonation, stress, linking, and reductions.

ESL 1320
High-Intermediate Reading Level V
4
* Prerequisite(s): Department Approval
For students whose native language is other than English. Studies comprehension of main ideas and supporting details of academic texts, making inferences and expanding vocabulary through context and English dictionary usage. Encourages students to read for pleasure and increase fluency through extensive reading outside of class. Develops critical reading and thinking skills.

ESL 1330
High-Intermediate Writing Level V
5
* Prerequisite(s): Department Approval
For students whose native language is other than English. Studies high-intermediate English writing conventions including pre-writing techniques and idea development, organization of written papers according to genre expectations, and editing and revising work for grammatical accuracy. Focuses on writing 5+ paragraph essays, and letters or articles from 2-5 pages in length. Includes weekly use of the ELL computer lab where high-intermediate writing skills are emphasized and practiced.

ESL 1340
High-Intermediate Grammar Level V
5
* Prerequisite(s): Department Approval
For students whose native language is other than English. Studies high-intermediate English grammar usage in written and verbal speech. Focuses on higher level verb tenses and their related structures, use of nouns and adjectival clauses, passive voice, and definite/indefinite articles. Expands use of modal auxiliaries, conditionals, and verb complementation using gerunds and infinitives.

ESL 2111
Advanced Pronunciation
1
* Prerequisite(s): Departmental Approval
For advanced ESL speakers with previous English experience. Reviews International Phonetic Alphabet for corresponding English alphabet sounds. Focuses on pronunciation of individual sounds along with how to produce naturally sounding syllables, words, and sentences through intonation, stress, rhythm, linking and reductions.

ESL 211G
Advanced Listening Speaking
4
* Prerequisite(s): Department Approval
For students whose native language is other than English. Studies advanced English usage, correct speech and writing forms and patterns related to tense, time, parts of speech, modifiers, clauses, phrases, conditionals, active/passive voice, and modals. Emphasizes grammatical fluency in English speech and writing. Satisfies AAS Humanities requirements.

ESL 211N
Advanced Reading Vocabulary
4
* Prerequisite(s): Departmental Approval
For students whose native language is other than English. Emphasizes comprehension and identification of stated main ideas and supporting details, inferences, skimming, scanning, recognizing patterns of organization and author's purpose, interpreting literature, and using advanced level vocabulary. Includes lectures, group discussions, lab activities, and multimedia. Satisfies AA/AS Humanities requirements.

ESL 2120
Advanced Composition
5
* Prerequisite(s): Department Approval
For international students whose native language is other than English. Using the English language, emphasizes developmental activities in essay organization, outlining, essay writing, editing and punctuation, and research paper writing. Includes lectures, small and large group activities, peer editing, and lab activities. Satisfies AAS Humanities requirements. Satisfies AAS Humanities requirements.

ESL 2140
Advanced Grammar
5
* Prerequisite(s): Department Approval
For students whose native language is other than English. Studies advanced English usage, correct speech and writing forms and patterns related to tense, time, parts of speech, modifiers, clauses, phrases, conditionals, active/passive voice, and modals. Emphasizes grammatical fluency in English speech and writing. Satisfies AAS Humanities requirements.

ESL 2150
Academic Skills--TOEFL
5
* Prerequisite(s): ESL 1310, ESL 1320, ESL 1330, ESL 1340 and ESL Compass Test with a score of 81
Focuses on the integration of all four language skills. Prepares students to pass the TOEFL test. Provides ample opportunities to practice integrated speaking, reading, writing and listening tasks commonly encountered in academic settings.
Course Descriptions

ESL 2160
Aviation English—Advanced Listening and Speaking
3
* Prerequisite(s): Departmental Approval

Prepares non-native English speakers to achieve operational English language proficiency in radiotelephony communication within the field of Aviation Science. Focuses primarily on pilot-controller communication in the English language. Provides opportunities to improve speaking, pronunciation, and overall English fluency in both routine and non-routine procedures using standard aviation phraseology and plain language. Provides opportunities to improve listening and comprehension skills through authentic pilot-controller radio recordings and dialogues. Builds vocabulary in both standard phraseology and non-routine domains. Addresses communication skills in the language skill areas of pronunciation, grammatical structures, vocabulary, fluency, and comprehension.

Emergency Services
Emerg Mgmt (ESMG)

ESMG 310G
Introduction to Homeland Security
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing

Introduces student to global and intercultural issues regarding homeland security at the national, regional, state and local levels. Discusses the history of homeland security, including its political history, and evolution, particularly as it relates to terrorism. Discusses demands state and local authorities must meet when dealing with national programs and requirements which affect funding and operations on the state and local level during natural or man-made disasters and emergencies.

ESMG 3150
Principles of Management for the Emergency Services
3
* Prerequisite(s): University Advanced Standing

* Prerequisite(s) or Corequisite(s): ESMG 310G

Examines critical skills used in the management of emergency services operations. Proposes possible applications of the skills using real-life examples. Emphasizes the development process and analytical skills necessary to assess problems in the workplace and select appropriate solutions.

ESMG 3200
Health and Safety Program Management
3
* Prerequisite(s): University Advanced Standing

* Prerequisite(s) or Corequisite(s): ESMG 310G

Teaches development, management, and evaluation of departmental safety programs. Includes compilation of accident and injury data from local jurisdictions. Develops programs that target safety concerns identified from research. Students will develop a plan to track effectiveness of safety programs to reduce personal injuries and property damage resulting from accidents within their department.

ESMG 3250
Managing Emergency Medical Services
3
* Prerequisite(s): University Advanced Standing

* Prerequisite(s) or Corequisite(s): ESMG 310G

Teaches action planning procedures for emergency incidents requiring multiple agency operations. Includes determining resources, assigning and placement of resources to mitigate incidents requiring multi-agency responses. Studies coordination of changing roles and responsibilities of fire service based EMS providers with the requirements set forth by local ordinances, state statutes, and federal laws. Presents personnel, resource management, and quality improvement techniques.

ESMG 3300
Master Planning for Public Emergency Services
3
* Prerequisite(s): University Advanced Standing

* Prerequisite(s) or Corequisite(s): ESMG 310G

Prepares students for developing long-range plans, given current organization status and local resources, emphasizing the attainment of both organizational, and community needs. Teaches planning for growth and for major disasters. Integrates resources and budgets while mitigating the impacts on a community. Develops and evaluates projected training requirements.

ESMG 3350
Analytical Research Approaches to Public Emergency Services
3
* Prerequisite(s): University Advanced Standing

* Prerequisite(s) or Corequisite(s): ESMG 310G

Explores basic research designs, the use of selective analytical tools, and common issues faced by public emergency services managers. Examines tools and techniques using research methods to facilitate the decision making process in public emergency services organizations.

ESMG 3400
Critical Infrastructure Protection
3
* Prerequisite(s): ESMG 310G and University Advanced Standing

Introduces critical infrastructure and key resources (CI/KR) and explores the interdependencies between government and private industry in sustaining and protecting critical infrastructure. Provides an overview of the elements and processes to develop and sustain successful critical infrastructure partnerships and to protect critical infrastructure and key resources.

ESMG 3600
Psychology of Emergency Services
3
* Prerequisite(s): ENGL 2010 and University Advanced Standing

* Prerequisite(s) or Corequisite(s): ESMG 310G

Examines the general psychological aspects of police, fire, and emergency medical services responders including dimensions of personality, family, organizational, cultural and diversity issues. Examines models of emergency and crisis decision making. Analyzes stress, anxiety, and trauma theories and clinical issues and examines current interventions being used for related disorders and building resilience.

ESMG 3710
Comparative Approaches to Homeland Security
3
* Prerequisite(s): University Advanced Standing

Discusses shared terrorism threats as well as policies and strategies employed by a range of democratic countries to cope with terrorism and other homeland security-related threats. Examines issue areas such as bio-threats, health system preparedness, airport security and anti-radicalization policies across a number of countries. Reviews the practices of other countries and translates those practices into policies applicable in the United States. Prepares students to engage with their international partners at the local, state, or federal levels as Homeland Security becomes an increasingly global undertaking requiring greater international outreach.

ESMG 4000
Advanced Emergency Services Leadership
4
* Prerequisite(s): University Advanced Standing

Explores advanced leadership topics as they relate to the first responder. Discusses leadership theories used in both emergency and non-emergency environments and develops skills necessary to lead small and large organizations under the unique atmosphere of time, pressure, and consequence. Provides an understanding of the role an emergency services leader plays in a paramilitary environment.
ESMG 4150
Humanitarian Services and Disaster Relief 3
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ESMG 310G
Examines both theoretical and applied aspects of complex humanitarian emergencies and reviews disasters in the context of humanitarian relief. Explores the needs of displaced persons and the systems and practices currently in place to meet these needs. Reviews the principles of preparedness, resilience, and sustainability in terms of short-term response to disasters and long-term community recovery.

ESMG 4200
Public Information and Disasters 3
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ESMG 310G or department approval
Prepares emergency services students to respond effectively to public information needs in both day-to-day emergency circumstances as well as in more extreme disaster conditions. Explores the theory and develops skills to effectively respond in crisis situations. Presents case studies in crisis response that demonstrate how information can help the public prepare, respond, and recover from disasters.

ESMG 425G
Crisis and Disaster Management 3
* Prerequisite(s): ENGL 1010, ENGH 1005, ESMG 310G, or departmental permission. University Advanced Standing
Deals with the operations side of humanitarian action. Establishes principles that can be used in local, national, and international relief efforts. Applies best practices from emergency management to the field of humanitarian services and disaster relief. Meets the global and international requirements to foster greater understanding of, interaction with, and appreciation for, cultures that reflect the diversity present within the local and campus communities, up to the larger state and global context.

ESMG 4300
Disaster Recovery and Mitigation 3
* Prerequisite(s): University Advanced Standing.
Focuses on how planning and policy processes and interventions can help reduce disaster vulnerabilities and increase resilience through effective recovery and mitigation strategies. Explores how demographic changes, human settlement patterns, land-use decisions, and political and social policy dynamics have increased vulnerability to natural and man-made disasters.

ESMG 4400
Legal Considerations for the Emergency Services 3
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ESMG 310G
Examines regulatory, political, and social aspects of government’s role in emergency services agencies, including regulatory issues, emergency services operations, employment, personnel issues, roles, legislative issues, and political influence.

ESMG 445G
Human Factors in Emergency Management 3
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ENGL 2010
Introduces students to an emergency response approach to understanding hazards and disasters grounded in social vulnerability analysis. Examines historical, geographical, social, and cultural factors and conditions that put people differentially at risk before, during, and after disasters. Utilizes a multi-disciplinary approach. Focuses on global, national, regional, and local patterns of development. Explores how vulnerable social groups globally are affected by and cope with hazardous conditions and events, and strategies for community-based mitigation engaging those most at risk.

ESMG 4500
Customer Service and Marketing for the Emergency Services 3
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ESMG 310G
Explores the principles and importance of customer oriented service delivery within the emergency services. Looks at current practices and delves into emerging needs and solutions for marketing and public relations. Includes research and critical thinking strategies for local, national, and global perspectives on customer service.

ESMG 4550
Principles of Disaster and Emergency Management 3
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ESMG 310G
Introduces the student to the need for and creation of comprehensive emergency planning operations. Explores risk assessment techniques and critical analysis strategies for communities and governmental agencies. Teaches the components of a comprehensive emergency plan and presents the National Incident Management System (NIMS), mandated by presidential directive.

ESMG 4600
Public Administration for the Emergency Services 3
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ESMG 310G
For Public Emergency Services Management students. Examines the relationship between the emergency management function in government and the professional field of public administration. Topics include public policy making, implementation and analysis, disaster analysis, problem solving and solution formulation.

ESMG 4650
Emergency Services Capstone WE 3
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ESMG 4600
Examines cutting-edge issues under the guidance of top professionals. Includes interviews with local and state officials to identify potential critical issues. Discusses personal leadership philosophy and strategies for decision making. Writing enriched course, which facilitates relevant communication in the discipline.

ESMG 481R
Emergency Services Internship 1 to 6
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ESMG 310G
For upper-division students working toward a Bachelor of Science Degree in Emergency Services Management. Provides a transition from school to work where learned theory is applied to actual practice through meaningful on-the-job experience. May be repeated for a maximum of 6 credits toward graduation. May be graded credit/no credit.

ESMG 489R
Special Topics in Emergency Management 1 to 6
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ESMG 310G
Provides students the opportunity to study special leadership topics in Emergency Management. Requires students to identify standard leadership topics and evaluate their application to Emergency Services. Calls for the creation of a significant research paper that is characteristic of the Emergency Leadership discipline and worthy of communication to a broader audience. May be repeated for a maximum of 9 credits toward graduation.
### Course Descriptions

#### ESMG 491R
**Topics in Cardiology and Medical Trends**
1 to 3
* Prerequisite(s): ENGL 2010, (ESFF 1000 or departmental approval), and University Advanced Standing

Surveys a specific topic in cardiology and medical trends related to Emergency Medicine. Topic varies each semester. May be repeated for a maximum of 6 credits toward graduation.

#### ESMG 492R
**Topics in Trauma and Pharmacology**
1 to 3
* Prerequisite(s): ENGL 2010, (ESFF 1000 or departmental approval), and University Advanced Standing

Surveys a specific topic in trauma and pharmacological trends. Topic varies each semester. May be repeated for a maximum of 6 credits toward graduation.

#### ESMG 493R
**Topics in Medical Litigation**
1 to 4
* Prerequisite(s): ENGL 2010, (ESFF 1000 or departmental approval), and University Advanced Standing

Surveys a specific topic in medical litigation. Topic varies each semester. May be repeated for a maximum of 4 credits toward graduation.

#### ESMG 6100
**Psychology and the Emergency Services Responder**
3
* Prerequisite(s): Acceptance into the Masters of Public Services Program

Examines the psychological impact the emergency services profession has on the responder. Explains the effects of emergency response and bureaucracy on the psyche of the responder. Identifies the need for post-traumatic growth.

#### ESMG 6110
**Disasters/Vulnerability and Impacts**
3
* Prerequisite(s): Acceptance into the Masters of Public Services Program

Evaluates the impact of natural and manmade disasters locally, nationally, and internationally. Analyzes historical disaster case studies in order to examine the aggregate costs of disasters.

#### ESMG 6120
**Emergency Planning and Response**
3
* Prerequisite(s): Acceptance into the Masters of Public Services Program

Examines the need for emergency planning and response criteria associated with emergency services delivery. Teaches how to generate a community wide emergency planning and response matrix. Identifies systems thinking within an emergency framework.

#### ESMG 6130
**Social Vulnerability in Emergencies**
3
* Prerequisite(s): Acceptance into the Masters of Public Services Program

Appraises social vulnerabilities within a community. Evaluates the sociological aspects of emergency response. Compares sociological and economic factors to resiliency.

#### ESMG 6140
**Homeland Security Fundamentals**
3
* Prerequisite(s): Acceptance into the Masters of Public Services Program

Explains the history, formation, and growth of the Department of Homeland Security (DHS) since September 11, 2001. Estimates impact homeland security has on local emergency service agencies. Appraises the current state of national and international homeland security operations. Evaluates the existing DHS structure and its ability to meet the organization's strategic mission.

### Emergency Services WildInd FF (ESWF)

#### ESWF 1310
**S131 Wildland Firefighter Type I**
.5
* Prerequisite(s): Departmental approval

Meets the training needs of a Type 1 Wildland Firefighter (FFT1). Presents several tactical decision scenarios designed to facilitate learning the objectives and class discussion. Introduces the student to the Fireline Handbook and provides an overview of its application.

#### ESWF 1330
**Look Up Look Down Look Around**
.5
* Prerequisite(s): Meet NWCG pre-qualifications or departmental approval

Examines the wildland fire environment and the indicators firefighters should observe on the fire line in order to anticipate fire behavior.

#### ESWF 1400
**Wildland Firefighting Fundamentals**
4

Designed to meet the Wildland Firefighter I knowledge and skill requirements of NFPA 1051, Wildland Fire Fighter Professional Qualifications. Teaches students to recognize the "Situations That Shout Watchout," apply the appropriate Standard Fire Orders and how to deploy a fire shelter. Includes orientation to the Incident Command System. Teaches basic fireline construction, fire weather, and fire behavior. Each subject covered in this course meets and/or exceeds NWCG standards for the following classes: S-130, S-190, I-100, and I-180. Course fee of $118 for materials, specialized clothing, equipment, and state services & testing applies.

#### ESWF 1410
**Wildland Firefighter Internship I**
5
* Prerequisite(s): ESWF 1400 or departmental approval

Provides experience in fighting fires at wildland and urban interface incidents. Studies wildland fire behavior, fire weather, and fire mitigation. Teaches size-up, chain of command, communications, strategy, and tactics. Includes developing water sources, learning engine tactics, understanding procedures for aircraft, firing and felling operations. Completers should develop skills beyond the entry level firefighter. May be graded credit/no credit. Course fee of $86 for specialized clothing, materials, and equipment applies.

#### ESWF 1420
**Wildland Firefighter Internship II**
5
* Prerequisite(s): ESWF 1410

Provides students with the training and experience that will assist them in gaining a job in wildland fire management and suppression. Features participation in a 20-person wildland fire suppression crew sponsored by the Utah Division of Forestry, Fire and State Lands. Also teaches about wildland fire behavior as well as fire suppression strategies and tactics. Requires students to participate in physically demanding assignments with long periods of time away from home. Exposes students to wildland fire and the various organizational and mechanical tools used to manage and suppress them, such as; aircraft, bulldozers, large engines and other fire management and suppression equipment. May be graded credit/no credit.

#### ESWF 2000
**S200 Initial Attack Incident Commander Type IV**
1
* Prerequisite(s): Departmental approval

Designed to meet the the training needs of the Initial Attack Incident Commander Type 4 (ICT4). Covers foundational skills, intelligence gathering and documentation, incident size up, development of a plan of action, post-fire activities, evaluation of incident objectives and incident management. Meets and/or exceeds NWCG standards for S-200.

#### ESWF 2010
**Basic Incident Command System for Initial Response**
1
* Prerequisite(s): Meet NWCG prequalifications or departmental approval

Introduces the principles of the Incident Command System (ICS) associated with incident-related performance. Includes leadership and management, delegation of authority, management by objectives, functional areas and positions, briefings, organizational flexibility, transitions and transfers. Built on the same lesson objectives and content as the NWCG I-200 course.
ESWF 2110
S211 Portable Pumps and Water Use
1.5
* Prerequisite(s): Departmental approval
Covers three skill areas: supply, delivery, and application of water. Includes correct water use, basic hydrdraulics, and equipment care. Requires set up, operation, and maintenance of pump equipment in the field exercise. Meets and/or exceeds NWCG standards for S-211.

ESWF 2150
S215 Fire Operations in the Wildland Urban Interface
2
* Prerequisite(s): Deparmental approval
Designed to assist structure and wildland firefighters who will be making tactical decisions when confronting wildland fire that threatens life, property, and improvements in the wildland/urban interface. Includes interface awareness, size-up, initial strategy and incident action plan, structure triage, structure protection tactics, incident action plan assessment and update, follow up and public relations, and firefighter safety in the interface. Meets and/or exceeds NWCG standards for S-215.

ESWF 2212
S212 Chain Saw Use in Wildland Fire Operations
2
* Prerequisite(s): Department approval
Introduces the function, maintenance, and use of internal combustion engine powered chain saws and their tactical wildland fire application. Provides field exercises to support entry-level training for firefighters with little or no previous experience in operating a chain saw. Provides hands-on cutting experience in surroundings similar to fireline situations. Meets or exceeds the requirements for NWCG S-212 Chain Saws.

ESWF 2231
S231 Wildland Fire Engine Boss
1
* Prerequisite(s): Department Approval
Focuses on the tasks, tactical decision-making, and leadership concepts required to safely manage an engine and its personnel at a wildland fire incident. Meets or exceeds the requirements of NWCG S-231 Engine Boss.

ESWF 2236
S236 Heavy Equipment Boss
2
* Prerequisite(s): Department Approval
Teaches requirements of a Heavy Equipment Boss, Single Resource (HEQB) on wildland fire incidents as outlined in the NIMS: Wildland Fire Qualification System Guide, PMS 310-1, and the position taskbook developed for the position. Explores tactical use and safety precautions required to establish and maintain an effective heavy equipment operation. Requires a field exercise as part of the course. Meets or exceeds the requirements of NWCG S-236 Heavy Equipment Boss.

ESWF 2244
S244 Field Observer
2
* Prerequisite(s): Department Approval
Provides the skills necessary to perform as a Field Observer (FOBS) and/or a Fire Effects Monitor (FEMO) in an ALL-RISK environment. Introduces roles and responsibilities of the FOBS and FEMO; how to make observations and document those observations; how to produce hand drawn and GPS field maps; and how to navigate using a compass and GPS. Meets or exceeds the requirements of NWCG S-244 Field Observer.

ESWF 2261
S261 Applied Interagency Incident Business Management
1
* Prerequisite(s): Department Approval
Teaches interagency incident business management for entry-level finance positions of (a) Equipment Time Recorder (EQTR), (b) Compensation for Injury Specialist (INJR), (c) Claims Specialist (CLMS), and (d) Personnel Time Recorder (PTRC). Provides an understanding of management procedure and basic policy and direction for incident business management. Meets or exceeds the requirements of NWCG S-261 Applied Interagency Incident Business Management.

ESWF 2301
S230 Crew Boss Single Resource
2
* Prerequisite(s): Departmental approval
Designed to produce proficiency in the single resource boss position from initial dispatch through demobilization to the home unit. Introduces operational leadership, preparation and mobilization, assignment preparation, risk management, entrapment avoidance, safety and tactics, online duties, demobilization, and post incident responsibilities. Meets or exceeds requirements for NWCG S-230 Crew Boss Single Resource.

ESWF 2340
Firing Operations
2
* Prerequisite(s): Department Approval
Introduces the roles and responsibilities of a Firing Boss, Single Resource (FIRB), and outlines duties of other personnel who may engage firing operations. Discusses and illustrates common firing devices and techniques. Demonstrates a real ignition or the use of an actual firing device. Meets or exceeds the requirements of NWCG S-219 Firing Operations.

ESWF 2430
Wildland Firefighter Internship III
5
* Prerequisite(s): ESWF 2420 and departmental approval
Increases the level of leadership training and responsibility for individual firefighters. Includes work on Advanced Firefighter/Squad Boss Task book. Teaches and improves upon the following skills; firefighter safety, supervision, communication, situational awareness and other fire suppression skills needed to advance to the Squad boss level. Offers valuable experience in wildland fire suppression techniques as well as safety and organizational skills. May be graded credit/no credit.

ESWF 2600
S260 Interagency Incident Business Management
1
* Prerequisite(s): Departmental approval
Studies the human resources aspect of emergency services in depth. Concentrates on personnel issues associated with day to day emergency service organizational management. Includes topics of ethical conduct, recruitment, resources, and financial management. Meets or exceeds the NWCG standards for S-260 Interagency Incident Business Management.

ESWF 2700
S270 Basic Air Operations
1
* Prerequisite(s): Departmental approval
Introduces aircraft types and capabilities, aviation management and safety for flying in and working with agency aircraft, tactical and logistical uses of aircraft, and requirements for helicopter take-off and landing areas. Addresses regulations, procedures and policies that primarily govern federal agency and ICS operations. Meets and/or exceeds NWCG standards for S-270 Basic Air Operations.

ESWF 2800
L280 Followership to Leadership
1
* Prerequisite(s): Departmental approval
Provides a self-assessment opportunity for individuals preparing to step into a leadership role. Includes leadership values and principles, transition challenges for new leaders, situational leadership, team cohesion factors, ethical decision-making, and after action review techniques. Meets or exceeds the requirements for NWCG L280 Followership to Leadership.

ESWF 2900
S290 Intermediate Wildland Fire Behavior
2
* Prerequisite(s): Departmental approval
Designed to prepare the prospective fireline supervisor to undertake safe and effective fire management operations. Second course in a series that collectively serves to develop fire behavior prediction knowledge and skills. Meets or exceeds the requirements of WFCG S290 Intermediate Wildland Fire Behavior.
Course Descriptions

ESWF 3000
S300 Incident Commander Extended Attack 1
* Prerequisite(s): Departmental approval and University Advanced Standing
Meets the training needs of the Incident Commander Type 3 (ICT3). Focuses on the lessons of leadership and command as they relate to the ICT3 position. Includes multiple tactical decision games for students to practice new knowledge. Covers foundation skills, situational awareness, command and control, managing the incident, transitional activities, post-fire activities and a final simulation. Meets or exceeds requirements for S300 Incident Commander Extended Attack.

ESWF 3020
I300 Intermediate Incident Command System 1
* Prerequisite(s): Departmental approval and University Advanced Standing
Provides description and detail of the Incident Command System (ICS) organization and operations in supervisory roles on expanding or Type 3 incidents. Includes: ICS fundamentals review, incident/event assessment and agency guidance in establishing incident objectives, Unified Command, incident resource management, planning process, demobilization, transfer of command, and incident close out. Meets or exceeds the requirements of NWCG I300 and ICS300 Intermediate Incident Command System.

ESWF 3300
S330 Task Force-Strike Team Leader 1
* Prerequisite(s): Departmental approval and University Advanced Standing
Teaches the application of risk management processes found in the Incident Response Pocket Guide (IRPG) to various incidents. Includes scenarios and exercises that assess the application of tactics specific to wildland fire suppression. Meets or exceeds requirements for NWCG S330 Task Force Strike Team Leader.

ESWF 3301
RX301 Prescribed Fire Implementation 2
* Prerequisite(s): Department Approval and University Advanced Standing
Introduces the tools and techniques used to perform in the role of a Prescribed Fire Burn Boss. Describes the duties and responsibilities associated with the position of the Prescribed Fire Burn Boss including evaluation and implementation of a prescribed fire plan. Meets or exceeds the requirements of NWCG RX 301- Prescribed Fire Implementation.

ESWF 3341
RX341 Prescribed Fire Plan Preparation 2
* Prerequisite(s): Department Approval and University Advanced Standing
Focuses on the skills/knowledge to prepare a prescribed fire plan for technical review and approval in accordance with the Interagency Prescribed Fire Planning and Implementation Procedures Guide, PMS 484. Meets or exceeds the requirements of NWCG RX-341 Prescribed Fire Plan Preparation.

ESWF 3360
S336 Tactical Decision Making in Wildland Fire 1
* Prerequisite(s): Departmental approval and University Advanced Standing
Meets training requirements in the Operations section of the Incident Command System. Includes examples and exercises specific to wildland fire suppression. Meets or exceeds requirements for NWCG S336 Tactical Decision Making in Wildland Fire.

ESWF 3380
L380 Fireline/Fire Service Leadership 3
* Prerequisite(s): Department Approval and University Advanced Standing
Provides leadership development training for wildland/fire service supervisors. Focuses on application of leadership styles and team building. Designed for incident personnel with supervisory responsibilities. Meets or exceeds the requirements of NWCG L-380 Fireline/Fire Service Leadership.

ESWF 3381
L381 Incident Leadership 3
* Prerequisite(s): Department Approval and University Advanced Standing
Focuses on leadership development training, recommended for command-level incident response personnel who will function in an ALL-RISK environment. Provides future leaders of divisions, groups, and Type 3 incidents with the leadership tools to effectively exert command and control over a quickly assembled team in a time constrained and rapidly changing incident environment. Meets or exceeds the requirements of NWCG L-381 Incident Leadership.

ESWF 3390
S339 Division or Group Supervisor 1
* Prerequisite(s): Departmental approval and University Advanced Standing
Prepares students to perform in the role of division/group supervisor. Includes division/group management, organizational interaction, division operations, and all-hazard operations. May include tactical decision games. Meets or exceeds the requirements of NWCG S-339, Division / Group Supervisor.

ESWF 4000
I400 Advanced Incident Command System 1
* Prerequisite(s): Departmental approval and University Advanced Standing
Provides an operational understanding of large single-agency and complex multi-agency/multi-jurisdictional incident responses. Includes: review for command and general staff, major and/or complex incident/event management, area command, and multi-agency coordination. Meets or exceeds the requirements for NWCG I400 Advanced Incident Command System or ICS 400.

ESWF 4390
S390 Introduction to Wildland Fire Behavior Calculations 3
* Prerequisite(s): Departmental approval and University Advanced Standing
Introduces fire behavior calculations by manual methods, using nomograms and the Fire Behavior Handbook. Covers the determinants of fire behavior though studying inputs (weather, slope, fuels, and fuel moisture). Teaches how to interpret fire behavior outputs, documentation processes, and fire behavior briefing components. Meets or exceeds the requirements of NWCG S390 Introduction to Wildland Fire Behavior Calculations.

ESWF 4410
M410 Facilitative Instructor 2
* Prerequisite(s): Department Approval
Develops effective facilitative instructors. Improves training delivery and quality by presenting instructional methods with an emphasis on student-oriented adult training techniques. Meets National Wildfire Coordinating Group (NWCG) instructor qualifications. Meets or exceeds requirements of NWCG M-410 Facilitative Instructor.

ESWF 4480
L480 Organizational Leadership in the Wildland Fire Service 3
* Prerequisite(s): Department Approval
Provides mid and upper-level organizational and Incident Management Team members with the leadership tools to deliver strategic direction and influence others to achieve team goals. Meets the NWCG requirements for L480.
ESWF 4481
L481 Advanced Leadership for Command and General Staff
3
* Prerequisite(s): Department Approval

Focuses on leadership within the context of large/complex incident management, to include team collective tasks and functions accomplished by large Incident Management Teams (IMTs). Describes individual tasks including functioning as a productive member of a staff organization, being a positive contributor to staff decision-making, maintaining a common operating picture, demonstrating staff member ethos, and projecting operational culture and leader’s intent. Meets or exceeds the requirements for NWCG L-580 Advanced Leadership for Command & General Staff.

ESWF 4580
L580 Leadership in Action
3
* Prerequisite(s): Department Approval

Designed for senior fire management leaders. Fosters exchange of knowledge and experience in the art of leading during high-risk and complex incidents. Meets or exceeds the requirements for NWCG L-580 Leadership in Action.

Ethnic Studies (ETHS)

ETHS 2500
Introduction to Ethnic Studies
3
* Prerequisite(s) or Corequisite(s): ENGH 1005 or ENGL 1010

Explores how Ethnic Studies came to be an academic discipline, for terminology, for theories, for concepts, and for laying groundwork to comprehend the multidisciplinary work in the field and in the minor.

ETHS 2510
Foundations of Ethnic Studies
3
* Prerequisite(s): ETHS 2500

Explores the field of Sports Medicine. Provides instruction on injury management, including knowledge, skills and abilities in preventing, identifying, treating and rehabilitating sport related injuries. Teaches appropriate vocabulary, injury mechanisms, and the nature of tissue response to training, trauma and treatment.

EXSC 1097
Fitness for Life
2
Provides information, tools, and skills to aid students in engaging in an active, healthy lifestyle throughout life. Offers the opportunity to learn about exercise program design, physiological adaptations that underlie fitness, and strategies to maintain an active lifestyle across the lifespan. Features access to high quality exercise facilities. Requires participation in exercise 2-3 days per week outside of the scheduled class activities. Stresses comprehensive principles in health, wellness, physical activity, and fitness assessment. Canvas Course Mats $66/McGraw applies

EXSC 2500
Sports Medicine
3
* Prerequisite(s): EXSC Majors: ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), all with a C- or higher and (MATH 1050 or MATH 1055). PETE and REC Majors: ZOOL 1090.
* Prerequisite(s) or Corequisite(s): ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), EXSC 270G all with a C- or higher and (MATH 1050 or MATH 1055). PETE Majors: PETE 2700 with a C- or higher and (MATH 1050 or MATH 1055). REC Majors: REC 2200.

Exercise Science (EXSC)

EXSC 270G
Foundations of Exercise Science
3
* Prerequisite(s): ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), ZOOL 2420 (or 242H), ZOOL 2425 (or 242L) all with a C- or higher, and (MATH 1050 or MATH 1055)

Introduces the study of the Exercise Sciences and discusses the global influence on the development of the field. Studies the national and international history and philosophy of the field of Exercise and sport science. Analyzes problems in areas covered under the umbrella of Exercise Science and Physical Education. Explores related career and employment opportunities in this area.

EXSC 3270
Exercise Testing and Prescription
3
* Prerequisite(s): ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), all with a C- or higher, and (MATH 1050 or MATH 1055), and University Advanced Standing
* Prerequisite(s) or Corequisite(s): ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), and EXSC 270G

Evaluates key concepts related to exercise testing, prescription, and program design for healthy populations. Examines concepts in team, group, and individualized exercise assessment and programming. Emphasizes principles in exercise physiology, health promotion, fitness assessment and prescription. Prepares students to sit for certification exams upon course completion. Course fee of $20 for supplies.

EXSC 3400
Statistical Analysis in Exercise Science
3
* Prerequisite(s): (MATH 1050 or higher) and University Advanced Standing

Provides an introduction to statistics, as well as the role of statistics in experimental design that is necessary to evaluate data collected from measurements commonly used in exercise science, health, physical education and recreation.

EXSC 3500
Kinesiology
3
* Prerequisite(s): ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), all with a C- or higher and MATH 1050 or MATH 1055. PETE Majors: ZOOL 1090 and PETE 2700 both with a C- or higher and MATH 1050 or MATH 1055. REC Majors: ZOOL 1090 and REC 2200 both with a C- or higher and STAT 1040 or STAT 1045 or MATH 1050 or MATH 1055. All: University Advanced Standing
* Prerequisite(s) or Corequisite(s): ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), and EXSC 270G

Studies human movement. Includes the structure of the human body and fundamental mechanics. Emphasizes kinesiological and mechanical analysis.
Course Descriptions

EXSC 3550
Motor Learning and Control WE
3
* Prerequisite(s): EXSC Majors: ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), and all with a C- or higher and (MATH 1050 or MATH 1055). PETE Majors: ZOOL 1090 and PETE 2700 both with a C- or higher and (MATH 1050 or MATH 1055). REC Majors: ZOOL 1090 and REC 2200 both with a C- or higher and (STAT 1040 or STAT 1045 or MATH 1050 or MATH 1055). All: University Advanced Standing or Co-requisite PETE 2700 both with a C- or higher and (MATH 1050 or MATH 1055). REC Majors: ZOOL 1090 and Pre or Co-requisite REC 2200 both with a C- or higher and (MATH 1050 or MATH 1055). REC Majors: ZOOL 1090 and Pre or Co-requisite REC 2200 both with a C- or higher and (MATH 1050 or MATH 1055). All: University Advanced Standing
* Prerequisite(s) or Corequisite(s): ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), EXSC 270G
Examines motor and cognitive characteristics of individuals involved in learning or performing motor skills. Examines conditions that influence learning. Analyzes how humans learn complex movement skills and control voluntary, coordinated movement. Analyzes the basic psychological processes involved in learning and control of movement and their effect on instruction and practice conditions for the learner. Studies motor development and its effect on skill acquisition. Course fee of $14 for equipment, software applies.

EXSC 3700 (Cross-listed with: ZOOL 3700)
Exercise Physiology
3
* Prerequisite(s): EXSC Majors: ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), and EXSC 270G all with a C- or higher and (MATH 1050 or MATH 1055). PETE Majors: PETE 2700 and ZOOL 1090 with a C- or higher and (MATH 1050 or MATH 1055). All: University Advanced Standing
* Prerequisite(s) or Corequisite(s): ZOOL 2420 (or 242H), ZOOL 2425 (or 242L)
Studies acute and chronic physiological responses to exercise, as well as nutritional and environmental effects on these responses. Requires separate weekly laboratory. Canvas Course Mats $66/McGraw applies.

EXSC 3705 (Cross-listed with: ZOOL 3705)
Exercise Physiology Laboratory
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): EXSC 3700
Investigates acute and chronic physiological responses to exercise, as well as nutritional and environmental effects on these responses. Provides a hands-on experience where students conduct a variety of testing procedures, as well as analyze and interpret the various physiological responses. Course Lab fee of $28 for materials applies.

EXSC 3730
Biomechanics
3
* Prerequisite(s): EXSC Majors: ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), and all with a C- or higher and (MATH 1050 or MATH 1055). PETE Majors: ZOOL 1090 and Pre or Co-requisite PETE 2700 both with a C- or higher and (MATH 1050 or MATH 1055). REC Majors: ZOOL 1090 and Pre or Co-requisite REC 2200 both with a C- or higher and (MATH 1050 or MATH 1055). All: University Advanced Standing
* Prerequisite(s) or Corequisite(s): ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), EXSC 270G, and EXSC 3500
Emphasizes the application of engineering principles and technology in sports performance through interdisciplinary methodologies. Includes human gait analysis, locomotion, trunk biomechanics, computer modeling, and tissue biomechanics. Course fee of $20 for equipment, supplies, and lab applies.

EXSC 3750
Psychosocial Aspects of Human Performance
3
* Prerequisite(s): University Advanced Standing.
* Prerequisite(s) or Corequisite(s): ZOOL 1090 or ZOOL 2320 (or 232H) and ZOOL 2325 (or 232L)
Provides students with the necessary skills and understanding to adequately deal with the psychological and social aspects of human and sport performance. Develops techniques and psychological skills to enhance performance and establish a learning and social environment that would enhance the effectiveness of coaches and maximize the skill and personal growth of athletes.

EXSC 3850
Ethical Concerns in Exercise Science
3
* Prerequisite(s): ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), and Pre or Co-requisite EXSC 270G all with a C- or higher and (MATH 1050 or MATH 1055), and University Advanced Standing.
Examines ethical issues related to exercise testing and prescription in healthy and special populations. Teaches American College of Sports Medicine (ACSM) exercise testing guidelines.

EXSC 4050
Obesity Physiology and Physical Activity
3
* Prerequisite(s): EXSC 270G and University Advanced Standing.
* Prerequisite(s) or Corequisite(s): ZOOL 2420 and ZOOL 2425
Provides a broad understanding of the negative health impacts of obesity on physiology. Focuses on exercise modalities that are safe and appropriate as means to treat and ameliorate the negative health consequences of obesity.

EXSC 4100
Physiology of Aging
3
* Prerequisite(s): ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), and Pre or Co-requisite EXSC 270G all with a C- or higher and (MATH 1050 or MATH 1055), and University Advanced Standing.
Examines physiological changes which accompany the advancement of age, including age-related changes in body composition, musculoskeletal, cardiovascular, pulmonary, and endocrine systems. Addresses solutions to exercise barriers and adherence, physical activity and exercise recommendations for functional health.

EXSC 4200
Exercise Metabolism
3
* Prerequisite(s): ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), and Pre or Co-requisite EXSC 270G all with a C- or higher and (MATH 1050 or MATH 1055), and University Advanced Standing.
Examines how exercise affects the functioning of human and animal organisms at the molecular level. Focuses on the tools of basic principles of biochemistry and teaches how to use the tools to understand how exercise affects metabolism. Studies how to use biochemical tests to assess an exercising person's health and performance.

EXSC 4300
Research Methods in Exercise Science and Outdoor Recreation WE
3
* Prerequisite(s): EXSC Majors: ZOOL 2320 (or 232H), ZOOL 2420 (or 242H), and Pre or Co-requisite EXSC 270G all with a C- or higher and (MATH 1050 or MATH 1055). REC Majors: ZOOL 1090 and Pre or Co-requisite REC 2200 both with a C- or higher and (STAT 1040 or STAT 1045 or MATH 1050 or MATH 1055). All: University Advanced Standing.
Introduces students to key research in their field. Emphasizes analytical and interpretive skills. Develops scientific writing skills. Promotes design and utilization of comprehensive research methodologies commonly applied in Exercise Science and Outdoor Recreation.
Course Descriptions

EXSC 4400  
Physical Activity Promotion in the Community  
3  
* Prerequisite(s): ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), EXSC 270G all with a C- or higher and (MATH 1050 or MATH 1055), and University Advanced Standing  
Emphasizes concepts related to physical activity promotion in the community. Critically reviews literature associated with physical activity programming in communities including barriers to physical activity participation, behavioral change theory, and social, environmental, and biological factors that influence physical activity behavior. Promotes application of concepts developed in class through introductory supervised field experience.

EXSC 4500  
Advanced Sports Nutrition  
3  
* Prerequisite(s): ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), EXSC 270G and Pre or Co-requisite EXSC 3700 and 3705 all with a C- or higher and (MATH 1050 or MATH 1055), and University Advanced Standing  
Designed to provide exercise science students a comprehensive understanding of basic nutritional principles as they relate to sports. Canvas Course Mats $57/HumanK applies.

EXSC 4550  
Principles of Strength and Conditioning  
3  
* Prerequisite(s): EXSC 3500 and EXSC 3700 and EXSC 3705 all with a C- or higher and University Advanced Standing  
Evaluates knowledge of physiological principles and training techniques used in strength and conditioning. Investigates guidelines from the National Strength and Conditioning Association (NSCA). Prepares students for several sections of the NSCA Certified Strength and Conditioning Specialist exam.

EXSC 4600  
Advanced Biomechanics  
3  
* Prerequisite(s): ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), EXSC 270G and Pre or Corequisite EXSC 3700 and 3705 all with a C- or higher and (MATH 1050 or MATH 1055), and University Advanced Standing  
* Prerequisite(s) or Corequisite(s): EXSC 3730  
Teaches the application of mechanical principles to the development of motor skills. Includes research and technology utilized in the field of biomechanics.

EXSC 4650  
Applied Sports Science  
3  
* Prerequisite(s): ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), EXSC 270G, EXSC 3500, EXSC 3700, EXSC 3705, and (MATH 1050 or MATH 1055), all with a C- or higher, and University Advanced Standing  
Introduces students to tasks commonly completed by sports scientists. Students will learn how and when to use state-of-the-art technology to collect and analyze human performance data and disseminate the results.

EXSC 4700  
Advanced Gross Motor Assessment  
3  
* Prerequisite(s): ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), EXSC 270G, EXSC 2500 and EXSC 3500 all with a C- or higher and (MATH 1050 or MATH 1055), and University Advanced Standing  
Provides the students with advanced instruction on and the development of knowledge, skills and abilities to be able to safely and effectively evaluate and interpret / qualify gross motor function. Includes but is not limited to surface anatomy, boney and soft tissue palpation, Range of Motion (ROM), muscular strength, neurologic enervation and stress tests of supportive structures.

EXSC 481R  
Internship in Exercise Science  
1 to 8  
* Prerequisite(s): ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), EXSC 270G, EXSC 2500 and EXSC 3500 all with a C- or higher and (MATH 1050 or MATH 1055), and University Advanced Standing  
Provides students with hands-on professional experience in the field of exercise science. May be repeated for a maximum of 8 credits toward graduation. Graded credit/no credit.

EXSC 489R  
Undergraduate Research for Exercise Science  
1 to 4  
* Prerequisite(s): ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), EXSC 270G and Pre or Co-requisite EXSC 3700 and 3705 all with a C- or higher and (MATH 1050 or MATH 1055), and University Advanced Standing  
Provides students the opportunity to conduct research under the mentorship of a faculty member. Students will put in practice the theoretical knowledge gained in prior major courses. Students will create a significant intellectual or creative product that is characteristic of the Exercise Science discipline and worthy of communication to a broader audience. May be repeated for a maximum of 8 credits toward graduation.

EXSC 4950  
Senior Seminar  
2  
* Prerequisite(s): ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), ZOOL 2420 (or 242H), ZOOL 2425 (or 242L), EXSC 270G all with a C- or higher and (MATH 1050 or MATH 1055), and University Advanced Standing  
Emphasizes critical evaluation of classic and current research in Exercise Science. Promotes research and writing skills within the discipline of Exercise Science. Promotes student centered learning and supports specialization within the field of Exercise Science.

Facilities Management (FAC)

FAC 1010  
Survey of Facilities Management  
3  
Orients Facilities Management (FAC) majors with core responsibilities in the industry. Uses case studies and theory to gain experience with problem solving and resource management.

FAC 1020  
Space Planning and Management  
3  
* Prerequisite(s) or Corequisite(s): ENGL 1010 or ENGH 1005  
Focuses on the forecasting, growth, planning, allocation, and management of occupied space. Discusses the role of the facilities manager in planning and managing growth.

Family Science (FAMS)

FAMS 1150  
Marriage and Relationship Skills  
SS  
3  
Guides students in building a lasting intimate relationship of their own and in understanding and teaching relationship maintenance and improvement strategies based on large-scale scientifically derived marriage and relationship principles. Utilizes cutting edge research on factors and issues related to relationship success and outcome including whom and when to marry and how to build stable and happy relationships over time. Stresses increased understanding of desirable relationship outcomes and how to achieve them.
FAMS 1500  
**Human Development Life Span**  
3  
Explores genetic and environmental influences on human development and behavior from conception and birth through old age and death. Examines typical physical, cognitive, and psychosocial changes at each developmental stage throughout the lifespan. Explores major theoretical perspectives on human development. Emphasizes how the context of family influences development of the individual.

FAMS 240G  
**Contemporary Family Relations**  
3  
Examines dynamics of the healthy family using family theory, individual life span development, research, and active learning experiences. Analyzes variations within families due to form, gender, socioeconomic status, culture, race, and other factors. Focuses on the diversity of family organization, interaction patterns, parenting practices, values, and prejudice in a multicultural society. Fulfills the Global/Intercultural requirement. Canvas Course Mats $67/Sage applies.

FAMS 2705  
**Ethics for Family Interventions WE**  
3  
* Prerequisite(s): ENGL 1010, ENGL 101H, or ENGH 1005 with a C+ or higher  
Explores the ethical and legal responsibilities of the helping professional in various types of family intervention, including counseling, education, and case management. Examines the broad scope of these ethical and legal concerns and how they are applied in a variety of settings.

FAMS 2800  
**Teaching Human Sexuality**  
3  
* Prerequisite(s): (ENGL 1010, ENGL 101H, or ENGH 1005 with a C+ or higher)  
Introduces basic concepts of human sexuality and effective methods to teach these topics to adults, adolescents, and children. Discusses gender roles, sexual orientation, sexual dysfunction, and sexually transmitted disease. Examines sexuality from the perspective of ethics, religion, the law, and education. Requires students to assess their own sexual attitudes and acquire information that should enable them to make responsible sexuality decisions. Educates students in how to teach human sexuality effectively regardless of any biases or individual beliefs. Note: Due to Utah State Laws regarding sexuality education, students registering for FAMS 2800 must be 18 years of age or a high school graduate.

FAMS 3000  
(Cross-listed with: SW 3000)  
**Social Work Practice I**  
3  
* Prerequisite(s): Admission to the BSW program or declared major in Family Science and University Advanced Standing  
Teaches students to apply the generalist social work Planned Change Model with individuals: engagement, assessment, goal setting/contracting, implementation, evaluation, and transition/ending. Prepares students to utilize core social work interpersonal communication skills to engage clients in a professional partnership with intervention and planning. Emphasizes the importance of cultural humility, principles of strengths-based and anti-oppressive social work practice, empirical research, and theories of human behavior and person-in-environment. Discusses ethical and professional demeanor and practice.

FAMS 3020  
**Research Methods for Family Science WE**  
3  
* Prerequisite(s): University Advanced Standing  
Surveys the most common research designs in the social sciences. Highlights experiments, quasi-experiments, correlational designs, survey research, single case, and the philosophy of qualitative methods. Includes the design of a study, original data collection, data analysis, presentation of results.

FAMS 3100  
**Career and Graduate School Preparation**  
3  
* Prerequisite(s): University Advanced Standing  
Emphasizes the development of skills necessary to apply for employment and/or graduate school in the field of family studies. Includes resume writing, cover letters, basic interview skills, preparation of application packages, and networking skills used with school and community resources to find employment and/or graduate school opportunities.

FAMS 3250  
**Applied Parenting**  
3  
* Prerequisite(s): (ENGL 2010 with a C+ or higher) and University Advanced Standing  
Exposes students to classical and contemporary parenting theory, research, and practice. Focuses on the application of the guidance of children. Includes the study of parenting concepts, challenges, risks, and alternatives while considering the social, physical, emotional, intellectual, and spiritual environments of the child.

FAMS 3300  
**Trauma-Informed Care**  
3  
* Prerequisite(s): University Advanced Standing  
Introduces trauma-informed care in working with vulnerable populations (e.g. addictions, adoption, domestic violence, abuse & neglect, military service, emergency management, etc.). Explores a broad range of neurobiosocial factors that influence the development and presentation of trauma in individuals, and will explore several frameworks used to identify the ways that trauma may present in those for which we serve. Investigates current evidence-informed frameworks and modalities for conceptualizing trauma. Requires a foundational knowledge of human development and family systems.

FAMS 3500  
**Family Demography**  
3  
* Prerequisite(s): University Advanced Standing  
Explores family life, modern and historical, through the lens of population science. Focuses on how patterns of fertility, mortality, and migration have shaped global and domestic family life and projections for the future of families.

FAMS 3800  
**Early Development in Families**  
3  
* Prerequisite(s): (ENGL 2010 with a C+ or higher) and University Advanced Standing  
Studies physical, social, emotional, and cognitive development from conception through adolescence. Emphasizes normal child development within family, social, and cultural contexts.

FAMS 3850  
**Adult Development and Aging**  
3  
* Prerequisite(s): (ENGL 2010 with a C+ or higher) and University Advanced Standing  
Explores the dynamic process of adult development from emerging adulthood to death. Focuses on current adult developmental research and theory and the development of adults within and without the family system. Includes the examination of physical, familial, emotional, and social development.

FAMS 4040  
**Secondary Data Analysis**  
3  
* Prerequisite(s): PSY 3110; BESC 3020; (ENGL 2010 with a C+ or higher); and University Advanced Standing  
Focuses on research in the academic discipline of Family Studies. Teaches how to use the tools of research as a problem solving resource in real-life and applied settings. Includes how to form a research question or hypothesis, develop a proposal, create measurement, and apply for IRB approval. Requires completion of a research project.
FAMS 4300
Family Dispute Resolution
3
* Prerequisite(s): COMM 3410 or instructor approval; and University Advanced Standing

 Builds on fundamentals learned in the basic mediation course. Reviews research and theories on family dynamics and conflicts. Examines the most effective mediation approaches, techniques, and skills for resolving family disputes. Presents information on specialized family mediation situations such as family mediation divorce, parent/teen, adoption, elder care. Prepares students to effectively participate in family mediations by utilizing an interactive workshop format with role-play, observation, and actual mediations.

FAMS 4400
Family Policy
3
* Prerequisite(s): (FAMS 240G or PSY 1010 or SOC 1010) and (ENGL 2010 with a C+ grade or higher) and University Advanced Standing

 Creates an understanding of the role of family professionals as advocates for the institution of the family. Covers family theories and research methods which aid in critically analyzing current policy development and implementation patterns in Utah and the United States. Utilizes the developmental theory in support of advocacy for family members in all their diverse structures, ages, and life stages.

FAMS 4500
Family Life Education Methodology WE
3
* Prerequisite(s): (FAMS 240G) and (ENGL 2010 with a C+ grade or higher) and University Advanced Standing

 Explores the field of family life education. Includes the history, development, and theory of family life education, as well as discussing the types of family-life education programs. Develops the knowledge and practical skills that are required to identify needs, design programs, teach family-life education, facilitate groups, and evaluate participants and programs in a variety of settings with a broad range of populations. Develops an appreciation for the impact of diversity in family-life education, which includes an awareness of multicultural factors, family structure, culture, economics, gender, race, religion, disability, ageism, and sexual orientation.

FAMS 4600
Relationship Education Certification
3
* Prerequisite(s): FAMS 240G and (ENGL 2010 or 2020 with a C+ or higher) and University Advanced Standing. FAMS 4500 is strongly encouraged but not required.

 Certifies students in the Prevention and Relationship Enhancement Program and other relationship curricula.

FAMS 4660
Family Financial and Resource Management
3
* Prerequisite(s): FAMS 240G strongly recommended; University Advanced Standing

 Introduces students to the fundamentals of family financial management. Focuses on norms, roles, values, and traditions of financial management in family systems. Evaluates emotional, subjective, and unstructured patterns, which contribute to financial mismanagement. Considers personal and social influences, including, marketing, holidays, spending pressure, goal definition, and debt accumulation. Canvas Course Mats $72/McGraw applies.

FAMS 4670
Family Dynamics and Systems
3
* Prerequisite(s): (FAMS 240G) and (ENGL 2010 with a C+ grade or higher) and University Advanced Standing

 Introduces the fundamentals of family dynamics and systems as they relate to family structure and function. Focuses on historical development, theoretical underpinnings, and applied utility of dynamics and systems. Includes boundary management, infraction, and renewal in contemporary family systems.

FAMS 4680
Family Theory
3
* Prerequisite(s): FAMS 240G and (ENGL 2010 or 2020 with a C+ or higher) and University Advanced Standing

 Explores the development and application of the major family theories and their tenets. Discusses the effectiveness of these theoretical approaches to family.

FAMS 4700
Introduction to Marriage and Family Therapy
3
* Prerequisite(s): FAMS 240G, and University Advanced Standing

 Introduces the field of marriage and family therapy. Addresses history, theory, prominent clinicians and modalities, and therapeutic topics and techniques. Develops the knowledge of such topics as the systemic nature of therapy. Focuses on knowledge of theory and specific topics in therapy rather than skill development. Includes research, training, professional issues, and ethics in the field.

FAMS 475R
Current Topics in Family Studies
1 to 3
* Prerequisite(s): FAMS 240G and (ENGL 2010 with a C+ grade or higher) and University Advanced Standing

 Presents a selected topic in Family Studies and will vary each semester. Requires a project demonstrating competency in the specific topic. May be repeated with different topics for nine credits toward graduation.

FAMS 481R
Community Practicum
1 to 8
* Prerequisite(s): Department approval and University Advanced Standing

 Provides practical experience in a governmental, corporate, or private agency to prepare for regular employment. Practicum placements require program approval by the faculty coordinator. May be repeated for up to 8 credits toward graduation. Course fee of $35 applies.

FAMS 482R
Stronger Families Practicum
1 to 8
* Prerequisite(s): Senior Standing in the Family Science program, FAMS 3000, FAMS 4500, permission of the instructor, and University Advanced Standing

 Provides practical and research experience interning in the Strengthening Families Program. Supervised by faculty, staff, and agency representatives. Requires faculty approval. May be repeated for a maximum of 8 credits toward graduation. Course fee of $35 applies.

FAMS 483R
Research Assistant Independent Study
1 to 8
* Prerequisite(s): Department approval and University Advanced Standing

 Provides research experience. Includes idea formation, survey creation, data collection, marketing, data cleaning, qualitative coding, codebook creation, data analysis, gathering or summarizing literature, or preparing presentations/manuscripts. May be graded credit/no credit. May be repeated for up to eight credits toward graduation.

FAMS 485R
Internship Seminar
1
* Prerequisite(s): Department approval and University Advanced Standing

 Provides integration of classroom learning with learning that takes place in an on-site internship. Intended to be taken concurrently with FAMS 481R or FAMS 482R. May be repeated for a maximum of 8 credits toward graduation.
Course Descriptions

FAMS 490R
Independent Study
1 to 3
* Prerequisite(s): BESC Department major; instructor approval and University Advanced Standing
Requires students to complete a well-defined project or directed study related to an area of special interest. Requires individual initiative and responsibility. Includes limited formal instruction and faculty supervision. May include writing a publishable paper, passing a competency exam, producing an annotated bibliography, oral presentation, or other options as approved by instructor. May be repeated for a maximum of six credits toward graduation.

Fine Arts Music and Theatre (FAMT)

FAMT 281R
Cooperative Work Experience
2 to 9
* Prerequisite(s): Approval of Cooperative Coordinator
Designed for Fine Arts majors. Provides paid work experiences in the student’s major. Course content is individualized, with students setting objectives in consultation with their faculty coordinator and their on-the-job supervisor. Credit is determined by the number of hours a student works during the semester. May be repeated four times for credit. May be graded credit/no credit.

Finance (FIN)

FIN 1060
Personal Finance
3
Designed as elective credit toward a business degree and for individuals interested in acquiring personal financial planning skills. Covers personal financial management with emphasis on decision making, budgeting, financial institutions, personal and family risk management, credit management, and estate planning. Methods include lectures, guest speakers, films, tapes, computer simulations and research. Completers should be able to prepare complete personal budgets and other family financial planning instruments. Lab access fee of $25 for computers applies. Canvas Course Mats $66/Wiley applies.

FIN 3020
Family Financial Management and Development
3
* Prerequisite(s): MAT 1030 or higher and University Advanced Standing
Personal and family financial management and development for non PFP Majors. Focuses on norms, roles, values, and traditions for the management of family resources. Examines the interactions and best practices of individuals and family members in processing financial management issues such as goal definitions, budgeting, debt management, and related functions.

FIN 3060
Introduction to the PFP Profession
3
* Prerequisite(s): MATH 1050 or MATH 1055 or MATH 1090 and University Advanced Standing
Introduces the processes appropriate for entry into the personal financial planning (PFP) profession. Provides an overview of the skills and knowledge sets required to be a PFP professional including an outline of business models and practice management issues within the industry. Includes a review of basic PFP process such as the time value of money, cash and debt management, personal financial statement analysis, education funding, and related issues.

FIN 3100
Principles of Finance
3
* Prerequisite(s): (MGMT 2340 or STAT 2040 or STAT 2050) and (ACC 2110 or ACC 2020 or ACC 3000) and University Advanced Standing
Examines financial management in the business environment; time value of money; fundamentals of security valuation; the capital asset pricing model and capital budgeting. Introduces finance terminology and quantitative techniques used in financial analysis. Covers financial ratios and financial statement analysis, cost of capital, working capital policies, dividend policy, and a brief overview of international finance. Lab access fee of $25 for computers applies. Canvas Course Mats $78/Cengage applies.

FIN 3150
Financial Management
3
* Prerequisite(s): FIN 3100 and University Advanced Standing
* Prerequisite(s) or Corequisite(s): MGMT 3345
Examines financial aspects of firm decisions; presents theoretical underpinnings for financial management, together with quantitative techniques used to analyze financial questions. Covers financial analysis and planning; valuation methods; determination of required return; effect of capital structure decisions; funding alternatives; and corporate risk management. Requires analysis of a capital budgeting problem, including a written paper, quantitative analysis and presentation. Lab access fee of $25 for computers applies. Canvas Course Mats of $85/McGraw applies.

FIN 3160
Financial Management for Accounting Majors
3
* Prerequisite(s): FIN 3100, MATH 1050, MATH 1055, or MATH 1090, and University Advanced Standing
Prepares accounting majors with the information and skills necessary to prepare for the certified management accounting (CMA) accreditation process. Includes coverage of financial statement analysis, evaluation of profitability, managing financial risk, management of capital issues, and other financial decision making processes.

FIN 3170
Financial Statement Analysis
3
* Prerequisite(s): FIN 3100 and University Advanced Standing
* Prerequisite(s) or Corequisite(s): MGMT 3345
Teaches the application of professional financial management processes required to analyze markets, sectors, obtaining experience with optimization, data analysis, and quantitative techniques appropriate to be successful in the profession. Promotes the skills necessary to determine the value of firms assets and the worth of those assets in financial markets.
FIN 3200
Financial Counseling
3
* Prerequisite(s): FIN 3060 and University Advanced Standing. For FFP Majors Only
Prepares students to be effective financial counseling practitioners. Trains students to begin their role as effective financial counselors and planners. Develops counselor and client relationships skills as well as communication techniques to help identify and assist clients in an integrated financial planning environment. Provides an overview of the learning process needed to recognize the financial issues and concerns of many individuals and families and how to appropriately recommend solutions to help clients help themselves, while focusing on counselor sincerity and effectiveness in client reality.

FIN 3220
Risk Management and Insurance
3
* Prerequisite(s): University Advanced Standing, and For FFP Majors Only.
* Prerequisite(s) or Corequisite(s): FIN 3060
Examines risk management and insurance planning for individual clients as well as employers of small corporations. Teaches the development of risk management and insurance plans with economic and behavioral theory. Uses a case study approach to apply and integrate the material. Emphasizes evaluation of financial alternatives. Provides learning activities that facilitate growth and development in written and oral communication skills.

FIN 3400
Investment Management
3
* Prerequisite(s): FIN 3100 and University Advanced Standing
Overviews the field of investments. Introduces stocks, bonds, put and call options, commodity and financial futures. Emphasizes both theory and practical aspects of investment management. Includes security valuation, market hypothesizes, capital asset pricing, strategies of portfolio construction, performance measures, and risk/return relationships. Lab access fee of $25 for computers applies.

FIN 3410
Introduction to Venture Capital Skills
3
* Prerequisite(s): University Advanced Standing, FIN 3100 strongly recommended.
Uses cases, supplemented with classroom instruction, to illustrate the various forms of financing a company can obtain. Provides insight into identifying and assessing investable opportunities using both qualitative and quantitative methods. Prepare students for more advanced coursework in venture capital and for professional roles after graduation in venture capital and private equity.

FIN 342R
Wolverine Fund
3
* Prerequisite(s): FIN 3410, Instructor Approval and University Advanced Standing, FIN 3100 strongly recommended.
Provides a hands-on learning experience in venture capital. Provides opportunity alongside syndicate partners for investment of Wolverine Fund monies in current venture capital deals. Uses evaluation methods including market, cash flow and hybrid methods, as well as various data sources, to analyze a company’s financial statements and predict future growth. Builds skill in constructing basic financial models and forecasting to evaluate the investable nature of a business. May be repeated for a maximum of 6 credits toward graduation.

FIN 4020
Enterprise Risk Management
3
* Prerequisite(s): FIN 3100, MGMT 2340, and University Advanced Standing
Introduces the risks and exposures to loss which affect businesses and non-profit entities. Includes pure, financial, operational, and strategic risk. Emphasizes data collection, analysis, and evaluation methods. Provides an in-depth examination of risk management program objectives and goals. Provides the tools for identification and treatment.

FIN 4030
Foundations of Risk Management and Insurance
3
* Prerequisite(s): FIN 3100, MGMT 2340, and University Advanced Standing
Introduces fundamental risk management and insurance principles as essential components of global business operations and personal risk management. Provides an in-depth examination of risk identification, risk analysis, global risk exposures, insurance company operations, legal principles, loss prevention and safety concepts, and the social and economic relevance of risk management and insurance.

FIN 4040
Business Law for Insurance Professionals
3
* Prerequisite(s): FIN 3100, MGMT 2340, and University Advanced Standing
Introduces the fundamentals of insurance law. Provides an in-depth examination of the definition of insurance, risk and the nature of the insurance relationship, insurable interests, indemnity, fortiety, and subrogation. Studies the coordination of benefits, interpretation of policies, rights at variance with policy provisions, contract formation, warranties, misrepresentation and concealment, conditions, agents and brokers, insurance regulation, and introduction to insurance coverage.

FIN 4050
Commercial Property Risk Management and Insurance
3
* Prerequisite(s): FIN 3100, MGMT 2340, and University Advanced Standing
Introduces commercial property risk management, with an emphasis on risk control, risk financing and using insurance as an essential component of an enterprise risk management program. Provides an in-depth examination of risk assessment, loss prevention, and the treatment of risk and insurance in the areas of commercial property, loss of business income, cyber risk, and equipment breakdown.

FIN 4060
Commercial Liability Risk Management and Insurance
3
* Prerequisite(s): FIN 3100, MGMT 2340, and University Advanced Standing
Introduces business liability exposures to risk and loss arising from negligence and/or other legal doctrines. Examines insurance as an essential component of an enterprise risk management program. Provides an in-depth examination of risk assessment, loss prevention, and treatment of risk in the areas of general liability, business auto, worker’s compensation, cyber risk, and management and professional liability.

FIN 4100
Management of Financial Institutions
3
* Prerequisite(s): FIN 3100 and University Advanced Standing
Studies the U.S. financial system and its primary institutions and markets. Includes the role of the Federal Reserve System, American and international financial markets. Explores the impact of monetary policy on financial institutions and financial intermediation. Presents the term structure of interest rates, money, capital and mortgage markets, and management of thrift institutions and insurance companies. Lab access fee of $25 for computers applies.

FIN 4160
Portfolio Management
3
* Prerequisite(s): FIN 3400 and University Advanced Standing
* Prerequisite(s) or Corequisite(s): MGMT 3345
Examines portfolio theory and applied techniques used in selecting appropriate securities and managing the risk and return of a portfolio, with a focus on meeting investment objectives. Considers both stock and bond portfolios, and includes discussion of market efficiency, diversification, measurement of risk and of performance, bond duration and portfolio immunization, advanced bond pricing principles, bond swaps, term structure of interest rates, asset allocation, and portfolio hedging strategies.
Course Descriptions

FIN 4170
Derivative Securities
3
* Prerequisite(s): FIN 3100 and University Advanced Standing
* Prerequisite(s) or Corequisite(s): MGMT 3345

Covers characteristics and institutional information about derivative securities, including forward and futures, options and swaps. Examines pricing models for these securities, risk inherent in derivative investments, and the role of derivatives in risk management. May include discussion of real options and other topics dealing with financial engineering.

FIN 4180
International Finance Management
3
* Prerequisite(s): FIN 3100 and University Advanced Standing

Examines financial aspects of firms operating in an international business environment. Includes currency valuation and forecasting; international flow of funds; foreign and international capital markets; valuation of multinational enterprises; and the effect of decisions about structure of the business and its transactions on firm value; and management of currency, political, and other risks arising from multinational operations. Canvas Course Mats of $85/McGraw applies. Lab access fee of $25 for computers applies.

FIN 4185
International Trade and Finance
3
* Prerequisite(s): FIN 3100 and University Advanced Standing

Examines aspects of trade and finance in an international business environment. Includes firm and currency valuation and forecasting; international flow of funds; foreign and international trade and capital markets; valuation of multinational enterprises; and the effect of decisions about structure of trade agreements and international supply chains on firm value, and management of trade, currency, political, and other risks arising from multinational operations.

FIN 4190
Applied Asset Diversification and Management
3
* Prerequisite(s): FIN 3400 and University Advanced Standing

Teaches a wide variety of investment asset classes including performance measurement, analysis of portfolio investment assets, quantitative analyses of investment portfolios. Discusses complex investment concepts through simplification and modeling of these issues to help clients better understand the benefits of these investment concepts.

FIN 4200
Financial Counseling Practicum
3
* Prerequisite(s): FIN 3060, FIN 3200, Instructor Approval, Matriculation into WSB, and University Advanced Standing

Examines financial counseling with an engaged and practical focus. Uses actual client data in a supervised environment to integrate the material and core learning objectives, then apply them to financial counseling situations. Emphasizes the evaluation of credit and debt management, housing decisions and budgeting and forecasting. Provides learning activities designed to facilitate student growth and development in written, oral and presentation skills. Works with local practitioners to provide an engaged learning experience.

FIN 4250
Personal Financial Planning Practicum
3
* Prerequisite(s): FIN 3200, FIN 5210, FIN 5260, FIN 3220, FIN 3400, ACC 3400, and University Advanced Standing

Examines practice management in various financial planning firms. Teaches the basics of practice management with an understanding of the core areas of personal financial planning. Uses a case study approach to apply and integrate the material and evaluate financial alternatives. Emphasizes the benefits and drawbacks of various management methods. Provides learning activities that will facilitate student growth and development in written and oral communication skills.

FIN 4270
Wealth Management Seminar
3
* Prerequisite(s): FIN 3060, FIN 3100, and FIN 3400, Matriculation into the Woodbury School of Business, University Advanced Standing, and for PFP Majors Only.

Introduces investment theory, literature and theories which describe the unique process of household investment decision making. Introduces quantitative investment analysis and the instruments used to construct an efficient household portfolio. Uses quantitative and theoretical material which will require a basic knowledge of economics and finance, and the ability to work with spreadsheets. Applies practical concepts to prepare students to work as wealth managers in financial planning firms.

FIN 4290
Technological Applications in Personal Financial Planning
3
* Prerequisite(s): FIN 3060, WSB matriculation, University Advanced Standing, and For PFP Majors Only.

Introduces various financial planning software packages. Includes both goal based and cash flow based financial planning software, client relationship management software, investment research software, portfolio management software, and office support software. Provides access to a variety of premier software companies in the U.S. and Canada. Certification in core software packages is required. Includes training material and standards as outlined by software companies.

FIN 4310
Real Estate Investment and Securities
3
* Prerequisite(s): FIN 3100 and University Advanced Standing

Examines real estate investments and debt and equity capital markets linked to real estate assets. Focuses primarily on real estate investments and valuation of debt and equity securities, including commercial and residential mortgages, real estate investment trusts, and mortgage-backed securities, and some related instruments such as CDOs. Examines the process of securitization and the secondary markets for real estate securities, together with the role of financial institutions in this sector. Provides an overview of real estate investment, measurement of prices, and fundamental determinants of value with particular attention given to the effect of interest rate risk, default risk, and the embedded prepayment options on the value of mortgages and mortgage-backed securities.

FIN 457R
Advanced Topics in Finance
3
* Prerequisite(s): FIN 3060, Instructor Approval, and University Advanced Standing

Uses case method, examination of current academic and professional literature and/or student research to explore selected finance topics in considerable detail. Emphasizes student analysis, exposition and presentation of information. May be repeated four times for a maximum of 12 credits toward graduation.

FIN 4600
AFC Examination Preparation
3
* Prerequisite(s): FIN 3200 and (FIN 1060 or FIN 3060), and University Advanced Standing

Prepares Personal Financial Planning students to sit for the Accredited Financial Counselor (AFC®) accreditation exam. Provides a review of the concepts and issues students need to be successful, including financial counseling, personal finance, and debt management.
**FIN 481R**  
Personal Financial Planning Internship  
2 to 8  
* Prerequisite(s): Departmental Approval and University Advanced Standing  

Provides supervised, practical, and professional experience for students preparing for careers in Personal Financial Planning. May be repeated for a maximum of 8 credit hours. May be graded Credit/No Credit.

**FIN 482R**  
Internship  
2 to 8  
* Prerequisite(s): Instructor Approval and University Advanced Standing  

For upper-division students in Finance. Provides a transition from school to work where learned theory is applied to actual practice through meaningful on-the-job paid experience commensurate with upper-division classroom instruction. Includes student, employer, and coordinator evaluations, on-site work visits, written assignments, and oral presentations. Completers should obtain experience in establishing and accomplishing individualized work objectives that improve work performance. May be repeated for 6 credits toward graduation. May be graded credit/no credit.

**FIN 483R**  
Colloquium in PFP Professionalism  
1  
* Prerequisite(s): University Advanced Standing and For PFP Majors Only  

Prepares PFP Program students for internships and other professional development activities. Features industry professionals who interact with students and discuss opportunities within the industry and their specific professional practices. Covers special topics such as business etiquette, dressing for success, preparing professional resumes, correspondence, etc. May allow students to experience extended personal interaction with visiting professionals by hosting them, providing transportation to/from the airport, escorting them to local points of interest, and more. May be repeated for a maximum of 3 credits toward graduation.

**FIN 5160**  
International Financial Management  
3  
* Prerequisite(s): FIN 3100  

Translates financial topics within an international perspective. Teaches international corporate finance transactions and the impact of currency implications on company financial translations. Provides a global context for cultural differences of financial concepts and practices in varied countries. Provides additional financial perspectives about international business transactions within the context of earlier financial courses.

**FIN 5170**  
Investment Analysis and Portfolio Analysis  
3  
* Prerequisite(s): FIN 3100  

Provides an introduction to the global securities market and its role in capital formation, wealth-creation, economic development, risk mitigation, wealth management, and other finance-related goals.

**FIN 5180**  
CFA Examination Preparation  
3  
* Prerequisite(s): Permission of instructor or department chair  

Prepares participants to sit for the Chartered Financial Analysis (CFA) Level 1 section of the exam. Requires students to work through a modular process covering outlined topics required for the exam including ethics, quantitative methods, economics, corporate finance, financial reporting/analysis, security analysis, and portfolio management.

**FIN 5210**  
Retirement Planning  
3  
* Prerequisite(s): FIN 3060, Matriculation into the Woodbury School of Business, University Advanced Standing, and For PFP Majors Only  

Examines the topics of retirement planning and retirement plans from both employer and individual client settings. Uses a case study approach to apply and integrate the material. Emphasizes the evaluation of financial alternatives. Provides learning activities that will facilitate student growth and development in written and oral communication skills.

**FIN 5260**  
Estate Planning Fundamentals  
3  
* Prerequisite(s): FIN 3060, Matriculation into the Woodbury School of Business, University Advanced Standing, and For PFP Majors Only  

Teaches gift, estate, and generation skipping transfer taxation, including financial and estate planning applications. Applies gift, estate, and generation skipping transfer taxation rules to personal financial planning scenarios. Studies financial regulations and taxation policy. May be delivered hybrid.

**FIN 5300**  
Tax Planning for Personal Financial Planners  
3  
* Prerequisite(s): FIN 3060, Matriculation into WSB, University Advanced Standing, and For PFP Majors only  

Examines the topic of income tax planning and forecasting for individual clients and small business owners. Uses a case study approach to integrate the material and apply it to personal financial planning situations. Emphasizes the evaluation of financial alternatives. Provides learning activities that will facilitate student growth and development in written and oral communication skills. Works with local practitioners to provide an engaged learning experience.

**FIN 5510**  
Investment Products  
3  
* Prerequisite(s): Permission of instructor or department chair and University Advanced Standing  

Helps students prepare for the CFA Level I exam by analyzing investment products. Defines major investment and sub-types of equity investments, fixed income investments, derivatives, and alternative investments. Introduces essential features and related risks of investment products.

**FIN 5520**  
Financial Markets  
3  
* Prerequisite(s): Permission of instructor or department chair and University Advanced Standing  

Examines fundamental economic concepts, including market structures and business cycles. Examines corporate governance, stakeholder management, and capital structure. Explores the role ethics and professionalism play in the investment industry.

**FIN 5700**  
CFP Examination Preparation  
3  
* Prerequisite(s): FIN 3060, FIN 3220, FIN 3400, FIN 5210, FIN 5260, FIN 5300 and University Advanced Standing  
* Prerequisite(s) or Corequisite(s): FIN 5800  

Prepares personal financial planning students completing his/her bachelor of science degree who are planning to take the Certified Financial Planner accreditation exam. Provides review of the concepts and issues individuals need to be successful. Uses Dalton Education materials.
## Course Descriptions

### FIN 5800  
**Personal Financial Planning Capstone**

3  
* Prerequisite(s): FIN 3060, FIN 5210, FIN 3220, FIN 5260, FIN 3400, University Advanced Standing, and For PFP Majors Only.  
Develops the concept of a comprehensive plan. Reviews each of the major aspects of financial planning in the context of a comprehensive case. Analyzes the financial planning profession and the various types of financial planning models. Provides an overview of software applications as well as interview skills, data gathering, working with clients, presentation skills, and the creation of a comprehensive financial plan.

### FIN 6060  
**Financial Planning for Professionals**

3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business  
Provides an overview of personal financial planning. Presents a framework for how financial planners assist clients in effectively planning to achieve their goals. Applies financial concepts to households, including time value of money, capital needs analyses, and risk management. Examines concepts related to education funding, insurance products, and professional ethics.

### FIN 6130  
**Financial Statement Analysis and Modeling**

3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business  
Develops fluency with the three primary financial statements including income statement, balance sheet, and cash flow statement. Projects statements for companies in three primary sectors and conducts a full enterprise valuation for projected companies. Conducts a mock merger, acquisition, and initial public offering valuation.

### FIN 6140  
**Regulatory Policy in Financial Services**

3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business  
Describes the functions and purposes of regulatory policy within the financial services industry. Outlines alternative philosophies which influence regulatory policy development including implementation of public policy for these purposes. Reviews varied government, industry, and other agencies responsible for regulatory policy in the financial services industry.

### FIN 6150  
**Financial Management**

3  
* Prerequisite(s): Acceptance in the MBA program  
Discusses corporate financial management cases and analyses dealing with problems of working capital management, capital budgeting, cost of capital evaluation, and corporate restructuring. Canvas Course Mats $78/ Cengage applies.

### FIN 6160  
**International Financial Management**

3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business  
Offers a financial perspective treating international business. Focuses on international corporate finance transactions and the currency implications of financial statement translations. Provides a global context for cultural differences of financial concepts and practices around the world.

### FIN 6170  
**Investment Analysis and Portfolio Analysis**

3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business  
Provides an introduction to the global securities market and its role in capital formation, wealth-creation, economic development, risk mitigation, wealth management, and other finance-related goals. Uses Bloomberg Terminals in the development of company and industry analyses. Canvas Course Mats $78/ Cengage applies.

### FIN 6180  
**Retirement Planning**

3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business  
Examines topics of retirement planning and retirement plans at the graduate level from both employer and individual client perspectives. Uses case study approach to apply and integrate the material. Emphasizes the evaluation of financial alternatives. Provides learning activities that will facilitate student growth and development in written and oral communication skills.

### FIN 6200  
**Estate Planning**

3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business  
Describes elements of estate planning including gift, estate, generation skipping, tax implications and other relevant issues financial planners need to identify client needs. Identifies planning concepts, tools, and varied processes important to meet needs of individual clients.

### FIN 6300  
**Income Tax Planning**

3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business  
Examines the topic of income tax planning and forecasting for individual clients and small business owners. Executes a case study approach to integrate material and apply it within a personal financial planning context. Implements materials to facilitate student growth and development in written and oral communication skills. Organizes activities with local practitioners to provide an engaged learning experience.

### FIN 6340  
**Analytics and Advanced Statistics**

3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business  
Describes processes and methods that statisticians use to analyze business, financial, and related issues. Teaches how to determine types of data required to address specific problems, how to gather, analyze, and report that information to suggest solutions to identified problems. Evaluates the effectiveness of varied statistical processes in applying those techniques to address specific types of issues. Practices the application of statistical methods to the evaluation of identified problems.

### FIN 6350  
**Retirement Income Planning**

3  
* Prerequisite(s): Admission into the MFPA program in the Woodbury School of Business  
Describes the special issues related to managing and sustaining retirement income for people depending on that source for livelihood. Evaluates alternative sources of income for retired individuals including social security, pensions, 401K, and other sources. Describes varied strategies for sustaining value, evaluating withdraws from principal, reviews of sustainability, and other related concepts.

### FIN 6370  
**Wealth Management**

3  
* Prerequisite(s): Admission into the MFPA program in the Woodbury School of Business  
Introduces investment theory, literature and theories relating to the unique processes of household investment decision making. Implements quantitative investment analyses and the instruments appropriate to the development of an efficient household portfolio. Teaches quantitative and theoretical concepts requiring a basic knowledge of economics, finance, and the ability to work with spreadsheets. Applies practical concepts to prepare students to work as wealth managers in financial planning firms.
FIN 6380  
Advanced Estate Planning and Asset Protection  
3  
* Prerequisite(s): FIN 6260 recommended; admission into any graduate program in the Woodbury School of Business  
Describes a variety of processes for evaluating asset values and paring those processes with client's requirements. Reviews alternative trust types, policies for achieving varied client objectives, and evaluating trust effectiveness.

FIN 6390  
Financial Technology  
3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business  
Provides an overview of financial software commonly used in financial planning and financial analytics. Evaluates software training processes. Introduces information technology used in financial services. Engages students in the process of financial technology system development.

FIN 6400  
Managing Client Relationships  
3  
* Prerequisite(s): Admission into the MFPA program in the Woodbury School of Business  
Outlines processes for developing and sustaining client relationships to manage a professional financial planning operation. Reviews alternative electronic applications designed to support client relationships. Evaluates the effectiveness of alternative client management systems including both strengths and challenges of such systems.

FIN 6450  
Planning for Financial Planning Business Owners  
3  
* Prerequisite(s): Acceptance into the Masters of FPA Program  
Reviews varied business organizations, structures, processes, and other related activities necessary to the effective management of a financial planning business. Evaluates client management, financial planning software, business and tax accounting software, and other needed technology support. Teaches professional development activities for planning professionals and staff. Analyzes marketing, human resources, and other business function processes. Integrates best business practices.

FIN 6510  
CFA I Investment Products  
3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business  
Helps students prepare for the CFA Level I exam by analyzing investment products. Defines major investment and sub-types of equity investments, fixed income investments, derivatives, and alternative investments. Introduces essential features and related risks of investment products.

FIN 6520  
CFA I Financial Markets  
3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business  
Analyzes fundamental economic concepts, including market structures and business cycles. Examines corporate governance, stakeholder management, and capital structure. Explores the role ethics and professionalism play in the investment industry.

FIN 6700  
CFP Exam Preparation  
3  
* Prerequisite(s): FIN 6060, FIN 6170, FIN 6210, FIN 6300, and FIN 6260  
* Prerequisite(s) or Corequisite(s): FIN 6800  
Prepares personal financial planning students completing master's degree who are planning to take the Certified Financial Planner accreditation exam. Provides review of the concepts and issues individuals need to be successful.

FIN 679R  
Special Topics in Finance  
3  
* Prerequisite(s): Admission into the MFPA program in the Woodbury School of Business  
Reviews special topics such as new tax laws, revisions of charitable giving procedures, developing specialized trusts, changes in financial industry regulatory processes, and other related topics. May be repeated for a maximum of 6 credits toward graduation.

FIN 6800  
Financial Planning Capstone and Case Analysis  
3  
* Prerequisite(s): FIN 6060, FIN 6170, FIN 6210, FIN 6300  
* Prerequisite(s) or Corequisite(s): FIN 6260  
Reviews each of the major aspects of financial planning in the context of a comprehensive case. Analyzes the financial planning profession and the various types of financial planning models. Provides an overview of client servicing and management, including data gathering, working with clients, presentation skills, and the creation of a comprehensive financial plan.

FIN 6810  
CFA Exam Preparation  
3  
* Prerequisite(s): FIN 6510, FIN 6520  
* Prerequisite(s) or Corequisite(s): FIN 6170, FIN 6340  
Prepares participants to sit for the Chartered Financial Analyst (CFA) Level 1 section of the exam. Requires students to work through a modular process covering outlined topics required for the exam including ethics, quantitative methods, economics, corporate finance, financial reporting/analysis, security analysis, and portfolio management.

FIN 6820  
Research Methods  
3  
* Prerequisite(s): Admission into the MFPA program in the Woodbury School of Business  
Describes graduate level research methods, processes, and skills appropriate to the analysis of applied business projects. Reviews scientific methods analysis, research design, measurement and scaling, testing reliability and validity, communication of research results, and other relevant concepts.

FIN 6840  
Behavioral Finance Seminar  
3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business  
Explores how deviations from the classic model of rationality impact decision making processes and outcomes. Evaluates the assumptions of human decision making. Analyzes the various biases and heuristics that can influence decision-making, especially about financial decisions. Applies behavioral finance research to the practices of financial planning and financial analytics.

FIN 689R  
Internship  
1 to 6  
* Prerequisite(s): Admission into any Woodbury School of Business graduate program.  
Provides supervised, applied experience for students preparing for careers in finance and/or financial services. Facilitates opportunities to apply theory and other concepts to real-world scenarios. Includes student, employer, and coordinator evaluations, written assignments, and oral presentations. Facilitates opportunities for students to establish individualized work objectives designed to improve performance. Requires completion of an internship application. May be graded credit/no credit. May be repeated for a maximum of 6 credits toward graduation.
Course Descriptions

FIN 690R
Independent Study
1 to 3
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business
Provides independent study of topics within financial planning and/or analytics. Guides students with reading, individual projects, and other engagements at the discretion and approval of the instructor. May be repeated for a maximum of 3 credits toward graduation.

French (FREN)

FREN 1010
Beginning French I
4
Emphasizes speaking, writing, reading, and listening skills. Teaches basic language usage and cultural understanding. Focuses on acquiring understanding through activity-based approaches. Lab access fee of $10 applies.

FREN 1020
Beginning French II
4
* Prerequisite(s): Students need equivalent knowledge of FREN 1010
Completes the first year of study. Includes the remaining grammar, language concepts, and culture associated with the beginning language sequence. Introduces students to literature in French. Lab access fee of $10 applies.

FREN 115R
French Conversation I
1
Offers novice French speakers opportunities to enhance their speaking proficiency in the target language by focusing on oral verbal production. Teaches how to produce mastery of the whole range of language acquisition components, including writing, grammar, etc. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of speech opportunities and defusing concern for such matters as spelling, etc. Increases mastery of lexical items through increased frequency of oral usage. May be repeated for a maximum of 3 credits toward graduation.

FREN 1500
French Travel Study
3
Introduces students to a French-speaking foreign country for a minimum of 10 days of intensive language and culture study. Course entails several meetings prior to departure and at least one after the return home to facilitate observation and analysis of data to be gathered on the tour. An organized presentation of that data will be contained in a multimedia project due no later than one month after tour.

FREN 2010
Intermediate French I
4
* Prerequisite(s): Students need equivalent knowledge of FREN 1020
Reviews grammar, reading, writing, and conversation skills learned throughout the first year. Introduces readings and discussions on the history, culture, and literature of the French world. Lab access fee of $10 applies.

FREN 202G
Intermediate French II
4
* Prerequisite(s): Students need equivalent knowledge of FREN 2010
Emphasizes reading, writing, and conversational skills through socio-cultural studies in history, literature and art. Lab access fee of $10 applies.

FREN 2050
Advanced French Grammar and Composition
3
* Prerequisite(s): FREN 202G or equivalent
Explores grammar of French focusing on areas typically difficult for English speakers. Provides extensive instruction in, and opportunity for the students’ improvement in language production, both oral and written. Completers should improve considerably their ability to express themselves in the foreign language both orally and in written form.

FREN 215R
French Conversation II
1
* Prerequisite(s): Students should have equivalent knowledge of FREN 1020
Offers lower division / novice speakers opportunities to enhance their speaking proficiency in the target language by focusing on oral verbal production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, sharpen listening comprehension, and develop conversational strategies such as circumlocution and managing a conversation with useful expressions for starting a conversation, gaining time to think, helping the other speaker, seeking agreement, etc. Contrasts with all other first year courses which must strive to produce mastery of the whole range of language acquisition components, including writing, grammar, etc. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of speech opportunities and defusing concern for such matters as spelling, etc. Increases mastery of lexical items through increased frequency of oral usage. May be repeated for a maximum of 3 credits toward graduation.

FREN 3030
French Composition and Conversation WE
3
* Prerequisite(s): (FREN 202G or instructor approval) and University Advanced Standing
Advances mastery of French grammar while emphasizing production skills of speaking and writing. Expands reading and listening skills to a lesser degree. Reviews and extends lexical depth. Allows students without experience living in a French immersion setting to advance in their communication skills to where they may participate more comfortably in future upper division courses with other students who do have immersion experience. Offers a variety of topics presented in a variety of media as content basis for real communicative practice in French. Conducts all course work primarily in French.

FREN 3040
Introduction to Literary Genres in French
3
* Prerequisite(s): (FREN 202G or equivalent) and University Advanced Standing
Explores different literary genres in the French language throughout the centuries. Provides extensive opportunity for improvement in oral and reading/writing development of language skills, as well as new ways of thinking about literature in cultural contexts. Completers should considerably improve their ability to express themselves in the foreign language. Taught entirely in French.
FREN 3050
Advanced French
3
* Prerequisite(s): It is recommended that students take FR 202G prior to enrolling in FR 3050. If you have advanced study of French, you may also contact the French Program Director for a placement test.

Building upon lower-division courses, continues to emphasize reading, writing, and conversational skills through studies in literary and other texts, including films dealing with Francophone cultures. Includes an in-depth review of grammar. Lab access fee of $10 applies.

FREN 3116
Adventure and Discovery-Journeys through the French and Francophone Worlds
3
* Prerequisite(s): Pass French AP Exam with minimum score of 3.

This course is part of the French Bridge Program in the State of Utah, open only to high school students in the Bridge Program. Not to be taught on main campus, and not open to students who are not enrolled in a participating high school. Explores themes of discovery, adventure, and journey in the French and Francophone world through the prism of the fine arts, history, music, texts, films, and other areas. Taught in French.

FREN 3117
Francophonie-Past/Present/Future
3
* Prerequisite(s): Pass French AP Exam with minimum score of 3.

This course is part of the French Bridge Program in the State of Utah, open only to high school students in the Bridge Program. Not to be taught on main campus, and not open to students who are not enrolled in a participating high school. Explores themes such as coming of age, rite of passage, and education as encountered in cultural artifacts and literatures from France and the Francophone world. Taught in French.

FREN 3118
Paris City of Lights
3
* Prerequisite(s): Pass French AP Exam with a minimum score of 3.

This course is part of the French Bridge Program in the State of Utah, open only to high school students in the Bridge Program. Not to be taught on main campus, and not open to students who are not enrolled in a participating high school. Explores the City of Lights through the prism of important themes, including, but not limited to, the arts, history, commerce, technology, sports, etc. Examines course themes through a variety of approaches, such as project based instruction, class discussion, and reaction papers. Taught in French.

FREN 3200
Business French
3
* Prerequisite(s): (FREN 3050 or equivalent knowledge) and University Advanced Standing

For those who plan to pursue careers in international business or related fields, learn French business language, understand French corporate culture, or plan to major or minor in French. Teaches French business terminology and prepares students to take the Chambre de Commerce et d'Industrie de Paris exam. Explores technological, personal, and professional aspects of business. Will be taught entirely in the French language. Lab access fee of $10 applies.

FREN 351G
Culture and Civilization to 1700
3
* Prerequisite(s): FREN 3050 and University Advanced Standing

Examines course themes through a variety of approaches, such as project based instruction, class discussion, and reaction papers. Taught in French.

FREN 352G
Culture and Civilization from 1700
3
* Prerequisite(s): FREN 3050 and University Advanced Standing

FREN 353G
Contemporary French Civilization and Culture
3
* Prerequisite(s): (FREN 3050 or equivalent knowledge) and University Advanced Standing

For those who plan to pursue careers in international business or related fields, learn French business language, understand French corporate culture, or plan to major or minor in French. Teaches French business terminology and prepares students to take the Chambre de Commerce et d'Industrie de Paris exam. Explores technological, personal, and professional aspects of business. Will be taught entirely in the French language. Lab access fee of $10 applies.

FREN 354G
Special Topics in Grammar Usage and Style
3
* Prerequisite(s): FREN 3050 and University Advanced Standing

Aims to introduce the fundamental concepts and practices of teaching French grammar. Emphasizes writing skills.

FREN 3610
French Literature to 1700
3
* Prerequisite(s): (FREN 3050 or equivalent knowledge) and University Advanced Standing

Examines course themes through a variety of approaches, such as project based instruction, class discussion, and reaction papers. Taught in French.

FREN 3620
French Literature from 1700 WE
3
* Prerequisite(s): (FREN 3050 or equivalent knowledge) or department approval; University Advanced Standing

Examines course themes through a variety of approaches, such as project based instruction, class discussion, and reaction papers. Taught in French.
Forensic Science (FSCI)

FSCI 3300
Forensic Photography 3
* Prerequisite(s): Forensic Science Majors Only and University Advanced Standing

Explains the basic concepts of Forensic Photography while exploring the fundamental skills for the selection and use of photography equipment. Identifies the basic principles and fundamentals of using photography with regard to crime scenes, forensic evidence, and identification photography. Illustrates skills utilizing a DSLR camera with various types of lighting, camera settings, and common camera accessories. Explains techniques involving surveillance, impression, close up, alternate light sources, infrared photography, and the legal aspects of forensic photography as it pertains to criminal investigations. Course fee of $155 applies. Lab access fee of $15 applies.

FSCI 3400
Criminalistics 3
* Prerequisite(s): Forensic Science Majors only and University Advanced Standing

Introduces entry-level forensic skills instrumental in conducting a complete and thorough criminal investigation. Discusses effective crime scene management as well as types of information, which can be gleaned from physical evidence as result of laboratory analysis. Applies scientific and technical methods used in the examination and analysis of physical evidence. Course Lab fee of $142 for materials applies. Lab access fee of $15 applies.

FSCI 3500
Footwear and Tire Mark Evidence and Examination 3
* Prerequisite(s): Forensic Science Majors only, and University Advanced Standing

Presented the history of footwear and tire impression evidence and introduces the examination of impression evidence. Explains crime scene protection and searching procedures for impression evidence. Identifies and lists the basic equipment needed for footwear and tire impression recovery at a crime scene. Identifies applicable chemical formulas and instructs in the preparation of chemical reagents used to visualize impression evidence. Teaches the recovery of footwear and tire evidence through photography, lifting, and casting. Includes the methodology of footwear and tire identification by image comparison techniques. Course fee of $128 for materials applies. Lab access fee of $15 applies.

FSCI 3540
Forensic Trace Analysis I 3
* Prerequisite(s): Forensic Science Majors only, and University Advanced Standing

Emphasizes the learning and proper use of technical vocabulary as it relates to forensic trace evidence. Teaches theory of techniques and operation of spectroscopic instruments. Explains spectroscopic analyses of various types of physical evidence. Teaches stereo and compound light microscopes to prepare small samples for examination. Teaches forensic comparison analysis and technical report writing. Lab access fee of $15 for computers applies. Course fee of $135 for materials applies.

FSCI 3550
Forensic Trace Analysis II 3
* Prerequisite(s): FSCI 3540, Forensic Science Majors only, and University Advanced Standing

Teaches theory of chromatographic/mass spectrometry techniques and operation of their analytical instruments. Teaches proper use of technical vocabulary related to forensic analysis. Explains chromatographic and mass spectrum analyses of physical evidence commonly found in criminal investigations. Teaches sample preparation, forensic comparison analysis and technical report writing. Lab access fee of $15 for computers applies.

FSCI 3600 (Cross-listed with: ZOOL 3600)
Forensic Anthropology I 3
* Prerequisite(s): ZOOL 1090, or ZOOL 2320 and ZOOL 2325, University Advanced Standing

Provides instruction on the study of human bones and their remains as physical evidence in criminal investigations. Teaches the importance of dentition in determining an age estimate of human remains. Identifies the differences among the sexes, whether the remains are human or nonhuman, and what is of forensic significance. Explains crime scene methodology and clinical applications in Forensic Anthropology. Teaches problem solving and analytical thinking in order to develop a biological profile based on population-specific data and standards. Investigates different pathological conditions and variables which must be taken into consideration when determining the cause of death.

FSCI 3700
Fingerprint Processing 3
* Prerequisite(s): Forensic Science Majors only, and University Advanced Standing

Teaches professional conduct in fingerprint processing. Explains the differences in latent fingerprints as they relate to the physical condition in which they are found. Describes and utilizes the equipment needed for fingerprint development, lifting, and comparison. Course fee of $143 for materials applies. Lab access fee of $15 applies.

FSCI 3720
Fingerprint Examination 3
* Prerequisite(s): Forensic Science Majors only, and University Advanced Standing

Presents the history of fingerprint examination. Teaches recent technical advances in fingerprint development and examination. Describes the theory and make-up of fingerprints, palm prints, and footprints. Explores charting and comparison techniques. Teaches criteria used to determine successful identification versus non-identification. Lab access fee of $15 for computers applies. Course fee of $30 materials applies.
FSCI 3780  
**Bloodstain Pattern Analysis**  
3  
* Prerequisite(s): Forensic Science Majors only, and University Advanced Standing  
Teaches the basics of handling blood evidence typically encountered at a crime scene. Explains terminology and the techniques of documentation as it relates to the analysis of bloodstain patterns. Presents the physical properties of blood as they apply to forensic investigation. Identifies characteristic patterns and computer applications to interpret the impact patterns of spattered blood. Illustrates the concepts of motion, directionality, area of convergence, and the area of origin of impact bloodstain patterns. Teaches traditional and modern techniques in crime scene reconstruction for documenting and reconstructing the crime scene. Describes guidelines for presenting bloodstain evidence at trial. Course lab fee of $75 for materials applies. Lab access fee of $15 applies.

FSCI 3820  
**Crime Scene Investigation Techniques I WE**  
3  
* Prerequisite(s): Forensic Science Majors only, and University Advanced Standing  
Lays the foundation of forensic microscopy. Describes the major variants and functions of the compound microscope including the stereo, polarized light and comparison variations. Establishes acceptable performance criteria and image quality as it relates to compromises among resolution, magnification, and visibility. Presents the use of specialized contrast enhancement methods and illumination techniques. Explains the theory and use of the polarized light microscope in the examination of crystalline materials. Describes the use of the microscope as a quantitative measuring tool. Introduces instrument systems calibration methods for both the microscope as well as imaging software. Describes the collection and examination of micro-traces and the use of micro-trace catalogs. Lab access fee of $15 for computers applies. Course fee of $152 for materials applies.

FSCI 3830  
**Crime Scene Investigation Techniques II WE**  
3  
* Prerequisite(s): FSCI 3820, Forensic Science Majors only, and University Advanced Standing  
* Prerequisite(s) or Corequisite(s): FSCI 3780  
Introduces instrument systems calibration methods for both the microscope as well as imaging software. Describes the collection and examination of micro-traces and the use of micro-trace catalogs. Lab access fee of $15 for computers applies. Course fee of $152 for materials applies.

FSCI 3850  
**Marijuana Identification Certificate**  
3  
* Prerequisite(s): Forensic Science Majors only, and University Advanced Standing  
Teaches the botanical and chemical methodology required for the legal identification of marijuana. Explains the microscopic morphological features of the plant material. Describes thin layer chromatography to detect hallucinogenic chemicals. Teaches the Duquenois-Levine Test to detect the cannabinoid family of chemicals and how to recognize false-positive results. Teaches the methodology to detect marijuana residues in charred debris. Explains data interpretation used for writing a marijuana analysis report to present in criminal proceedings. Course fee of $155 for materials applies. Lab access fee of $15 applies.

FSCI 3860  
**Forensic Microscopy**  
3  
* Prerequisite(s): Forensic Science Major only, and University Advanced Standing  
Describes thin layer chromatography to identify the cannabinoid family of chemicals and how to recognize false-positive results. Teaches the methodology to detect marijuana residues in charred debris. Explains data interpretation used for writing a marijuana analysis report to present in criminal proceedings. Course fee of $155 for materials applies. Lab access fee of $15 applies.

FSCI 4000  
**Firearms Examination**  
3  
* Prerequisite(s): Forensic Science Majors only, and University Advanced Standing  
Identifies modern firearms and ammunition while teaching how they operate and are manufactured. Explains how to collect, preserve, transport, and safely handle firearms and ammunition. Discusses the procedures of firing and the recovery of test bullets. Teaches the procedures of serial number restoration, gun shot residue tests, distance determinations, microscopic and chemical examinations. Includes how to interpret data, write reports of findings, and present results in a court of law. Course fee of $65 applies. Lab access fee of $15 applies.

FSCI 4050  
**Forensic Approaches to Cold Case Investigations**  
3  
* Prerequisite(s): Forensic Science Major only, and University Advanced Standing  
Teaches key procedures directly related to cold case investigations with a focus on how advancing forensic technological advances provide new avenues for solving cases. Teaches investigative procedure and forensic evidence in cold case investigations. Teaches investigative theory, practices, crime scene investigative techniques, physical evidence and new forensic technical approaches to investigations. Explains new options or investigative leads for cold case investigations. Requires a 20-hour service-learning component.

FSCI 4100  
**Forensic Pathology**  
3  
* Prerequisite(s): ZOOL 1090, or ZOOL 2320 and 2325, University Advanced Standing  
Describes the major variants and functions of the compound microscope including the stereo, polarized light and comparison variations. Establishes acceptable performance criteria and image quality as it relates to compromises among resolution, magnification, and visibility. Presents the use of specialized contrast enhancement methods and illumination techniques. Explains the theory and use of the polarized light microscope in the examination of crystalline materials. Describes the use of the microscope as a quantitative measuring tool. Introduces instrument systems calibration methods for both the microscope as well as imaging software. Describes the collection and examination of micro-traces and the use of micro-trace catalogs. Lab access fee of $15 for computers applies. Course fee of $152 for materials applies.

FSCI 4200  
**Medicolegal Death Investigations**  
3  
* Prerequisite(s): FSCI 4100, Forensic Science Majors only, and University Advanced Standing  
Explores the legal environment pertaining to forensic expert witnessing. Teaches the litigation process and aspects of courtroom testimony. Discusses forensic expert qualifications, ethics and credibility. Discusses the processes and importance of training, certification, periodic proficiency testing and review. Evaluates the role of professional organizations within forensic science. Examines national guidelines and reports affecting the practice, methodology and scientific validity within forensic disciplines.
**Course Descriptions**

**FSCI 4300**  
Forensic Genealogy  
3  
* Prerequisite(s): Forensic Science Majors only, and University Advanced Standing  
Teaches the application of forensic genealogy to non-criminal and criminal cases. Provides an analysis of scientific methods used to create genetic profiles, which establish genetic relationships. Examines ethical implications, current laws and policies governing genetic genealogy in forensic investigations.

**FSCI 4320**  
Genealogy Research Methods and Standards  
3  
* Prerequisite(s): FSCI 4300, Forensic Science Majors only, and University Advanced Standing  
Teaches traditional genealogy research methods and subsequent analysis of documentary evidence. Discusses the overall process of documenting, research, data collection and organization. Explores effective search methods such as vital records, census, immigration and historical documents. Teaches the standards of the Board for Certification of Genealogists and The Genealogical Proof Standard.

**FSCI 4350**  
Forensic Genealogy Seminar  
3  
* Prerequisite(s): FSCI 4300, FSCI 4320, Forensic Science Majors only, and University Advanced Standing  
Provides a capstone experience in Forensic Genealogy. Applies forensic genetic genealogy knowledge to the development of a real world investigation project in consultation with a faculty member.

**FSCI 443R**  
Directed Research in Forensic Science  
2 to 7  
* Prerequisite(s): Forensic Science Majors only, Instructor Approval and University Advanced Standing  
Guided research studies in forensic science under the direction of a Forensic Science faculty mentor. Involves students in the methodology of research within various forensic science disciplines. Includes the process of forming a testable hypothesis through the combination of literature and data review, experimental design, data acquisition, interpretation of results and overall conclusive findings. May be repeated for a maximum of 7 credits toward graduation. Lab access fee of $15 for computers applies. Course fee of $310 for materials applies.

**FSCI 475R**  
Current Topics in Forensic Science  
3  
* Prerequisite(s): (CJ 1350 or FSCI 3400) with a "C+" or higher, Forensic Science Majors only, and University Advanced Standing  
Presents selected topics in Forensic Science and Forensic Investigations. May be repeated with different topic areas for a maximum of 9 credits toward graduation.

**FSCI 481R**  
Forensic Science Internship  
1 to 9  
* Prerequisite(s): Forensic Science Majors, department approval and University Advanced Standing  
Provides actual, on-the-job work experience on a paying or non-paying (volunteer) basis in a Forensic Science profession or other approved related discipline. Emphasizes successful work experience through job shadowing of a professional. May be repeated for a maximum of 9 credits toward graduation. May be graded Credit/No Credit.

**FSCI 489R**  
Research in Forensic Investigations  
2 to 7  
* Prerequisite(s): Forensic Science Majors only, Instructor Approval and University Advanced Standing  
Teaches research techniques within forensic investigation disciplines on a project determined by the student and under the direction of a forensic science faculty mentor. Consists of any combination of literature reviews, original research, and/or participation in ongoing departmental projects. Emphasizes experimental technique, data collection, methodology, analysis, and preparation of research for presentation to an audience of peers. May be repeated for a maximum of 7 credits toward graduation.

**FSCI 4990**  
Forensic Investigation Capstone  
3  
* Prerequisite(s): FSCI 3300, FSCI 3830, Forensic Science Majors only, and University Advanced Standing  
Applies qualitative, quantitative, and/or mixed research methods for selected issues in forensic investigation. Requires the student to develop and present an undergraduate research project both orally and in writing. Students should plan to register for this course in their last semester of the program.

**Geography (GEOG)**

**GEOG 1000**  
Introduction to Physical Geography  
3  
* Prerequisite(s) or Corequisite(s): GEOG 1000  
Explores the world through each of the major components of physical geography: climatology, hydrology, geomorphology, and biogeochemistry, focusing on how they are interrelated. Emphasizes the dynamic interactions among climate, vegetation, soils, and landforms. Can be taken in conjunction with laboratory exercises in GEOG 1005.

**GEOG 1005**  
Introduction to Physical Geography Lab  
1  
* Prerequisite(s) or Corequisite(s): GEOG 1000  
Designed to be taken in conjunction with GEOG 1000. Explores the world from a broad perspective, examining each of the major components of physical geography: climatology, hydrology, geomorphology, and biogeochemistry. Investigates physical processes of and interactions among climate, vegetation, soils, and landforms.

**GEOG 130G**  
Survey of World Geography  
3  
Explores the world in which we live. Studies major countries of the world with special emphasis on location, physical environment, culture, resources, and current events. May be delivered online.

**GEOG 140G**  
Introduction to Human Geography  
3  
Examines the theoretical, spatial, and relational aspects of human activity across the Earth’s surface. Discusses the analytical frameworks for understanding the interactions of social, cultural, economic and political systems. Includes topics of population dynamics, culture, language, religion, international development, human conflicts, and urbanization.
GEOG 1800  
Mapping the World with Geospatial Technology  
Introduces how the Earth’s natural and social features, processes, and systems are mapped and visualized. Is designed for non-science and science majors alike. Provides an overview of satellite and land-based technologies, such as Global Positioning Satellite Systems (e.g., GPS) and uncrewed aerial systems (drones), for determining locations, monitoring change, and imaging the Earth over years and in real-time. Familiarizes students with cartography (map-making and reading), mapping and map visualization software, acquisition and use of location data with handheld devices, interpretation of aerial and satellite imagery, and spatial reasoning and communication skills. Incorporates modern cutting-edge technology and applications to environmental, social, and business issues.

GEOG 2000  
Sustainability and Environment SS  
Sustainability and Environment SS  
Explores relationships of human and natural systems, how cultural groups experience nature, and global sustainability. Examines different ways of perceiving nature, resources, the environment, and society. Critically analyzes links between social, economic, political, historical, cultural, and environmental processes. Discusses environmental problems and ways to build more sustainable futures. Includes participation in locally sustainability issues.

GEOG 2100  
Geography of the United States  
Surveys primarily the regional geography of the United States. Explores each of the subregions of the United States in terms of human geographies and also their relationship to the environment. Emphasizes contemporary issues such as sustainability, social geographies, political issues, and their interrelationships. Includes topics such as culture, environment, economy, urbanization, transportation systems, territory and political borders.

GEOG 2200  
Geography of Europe  
Provides a regional survey of Europe including topics such as economic development, environment, politics, society and culture. Explores the place of Europe in geopolitical and global economic systems. Discusses internal relationships within the European Union, Eastern Europe and Russia.

GEOG 2500  
Geography of Latin America and the Caribbean  
Surveys the Americas south of the United States. Explores each subregion of Latin America and the Caribbean in detail. Includes topics such as development, environment, indigenous peoples, history, and national political and financial crises.

GEOG 3000  
Climate Change in Science and Society  
* Prerequisite(s): University Advanced Standing  
Offers a fundamental understanding of the science behind contemporary climate change and what to expect in a warming world. Examines observational and other scientific data of different aspects of climate science and the predicted impacts on natural systems around the world. Explores societal and human responses to impacts of climate change. Investigates possible solutions and the politics of climate negotiations.

GEOG 3010  
Economic Geography  
* Prerequisite(s): University Advanced Standing  
A course encompassing the study of humankind's economic activities on the earth, including hunting, gathering, agriculture, mining, manufacturing, forestry, fishing, high technology, and world trade. Studies population, environmental issues, urban patterns, and travel and tourism. Uses lectures, oral response, field trips, and audiovisual aids.

GEOG 3100  
Cartography  
* Prerequisite(s): (MAT 1030, MAT 1035, STAT 1040, STAT 1045, MATH 1050, MATH 1055, or higher) and (GEO 1010 or GEOG 1000 or GEOG 1300 or equivalent); University Advanced Standing  
Introduces fundamental principles of cartography including perception, visualization, topographic and thematic map interpretation, field mapping techniques (including GPS), and creating computer-based maps. Includes concepts of direction, scale, grids, projections, spatial transformations, spatial data analysis, data manipulation decisions, color theory and application, and principles of cartographic design and critical evaluation.

GEOG 3110  
Urban Geography WE  
* Prerequisite(s): University Advanced Standing; GEOG 1300 preferred  
Focuses on the origins, growth, structure and function of cities. Examines social and political dimensions of urban life and the emergence of new urban spaces around the world. Includes case studies in the decline of urban industrial America and the rise of Sunbelt and Edge Cities.

GEOG 3200  
Geography of Utah  
* Prerequisite(s): University Advanced Standing  
Applies principles and methods of physical, cultural, and human-environment geography to the study of Utah's people, places, and environments; considers problems of adjustment, including natural hazards, environmental concerns, and human problems.

GEOG 3250  
Cultural Geography  
* Prerequisite(s): (ENGL 2010 or instructor approval) and University Advanced Standing  
Explores the cultural landscape of the world's peoples. Describes the geographic complex of cultural forms including language, religion, music, art, architecture, folklore, food, clothing and land use. Topics include cultural conflicts, globalization, and the international entertainment industry.

GEOG 3300  
Biogeography  
* Prerequisite(s): (BIOL1010, or BIOL1620, or GEOG1000) and University Advanced Standing  
Examines the geography of nature. Expands on the subjects of ecology, biology, and history to examine nature over time and space. Examines nature at different scales: from the molecule to the global biome. Explores the foundations, major concepts, and trends in biogeography, as well as related analytical and data visualization techniques.

GEOG 3350  
Geography of Africa  
* Prerequisite(s): University Advanced Standing  
Examines the historical and contemporary human geographies of Africa. Focuses on the impact of colonialism on societies, economies, politics, and environments across the continent and the historical context of contemporary challenges. Analyzes human-environment relationships across both rural and urban areas. Problematises the concept of development and outlines key challenges facing the continent in the future.
Course Descriptions

**GEOG 3400 Environmental Remote Sensing**
3
* Prerequisite(s): GEOG 3600 or GIS 3600; and an upper division course in natural science recommended; and University Advanced Standing

Introduces the history, theory, and operation of remote sensing software. Includes an introduction to the electromagnetic spectrum and signals, sensors, image processing, and classification techniques. Provides a survey of the concepts and techniques of remote sensing and image analysis for mapping and monitoring natural resources, environment and land use, and an array of geoscientific applications at different scales. Software fee of $18 applies. Lab access fee of $35 applies.

**GEOG 3430 Political Geography**
3
* Prerequisite(s): University Advanced Standing

Surveys the geographic dimensions of political action and theory at local, national and global scales. Covers topics such as geopolitics, nationalism, territoriality, and political conflicts. Examines subjects such as American electoral patterns, Cold War geographies, and 21st century global security.

**GEOG 3500 (Cross-listed with: GEO 3500) Geomorphology**
4
* Prerequisite(s): GEO 1010 or GEOG 1000; University Advanced Standing

Examines the geologic processes operating at the Earth's surface to understand the origin of our planet's varied landscapes. Explores how landforms respond to climate change, tectonic forcing, and changes in land use. Addresses common geomorphic processes including weathering, soils, hill slope processes, fluvial processes and landforms, aeolian transport, glacial and periglacial environments, karst, and coastal processes. Course lab fee of $21 applies.

**GEOG 3600 (Cross-listed with: ENVT 3630, GIS 3600) Introduction to Geographic Information Systems**
4
* Prerequisite(s): [Completion of a course that meets the PP (Physical Science) or SS (Social Science) general education requirement is recommended] and University Advanced Standing

Introduces the history, theory, and operation of Geographic Information Systems (GIS). Includes an introduction to GIS data sources, database design, data input, spatial analysis, and map production. Offers valuable preparation for careers in geology, geography, geographic information systems, geomatics, planning, surveying, marketing, environmental technology, biology, engineering, and other related fields. Lab access fee of $35 for computers applies. Software fee of $18 applies.

**GEOG 3650 Advanced Geographic Information Systems**
4
* Prerequisite(s): GEOG 3600 and University Advanced Standing

Expands on GEOG 3600, Introduction to Geographic Information Systems (GIS), and reviews advanced GIS functions and applications to the sciences. Fundamental topics include spatial analysis, geostatistical analysis, 3-D modeling, and project development and implementation. Lab access fee of $35 applies. Software fee of $18 applies.

**GEOG 3700 Wetland Studies**
3
* Prerequisite(s): GEOG 1000 OR GEO 1010 OR ENVT 1110 OR BIOL 1010 OR CHEM 1210 OR Instructor Approval; University Advanced Standing

Examines the structure and function of wetlands with emphasis on wetland biogeochemistry processes, soils, hydrology, flora and fauna, mitigation and restoration, policies and regulations. Explores research methods applied in wetland studies. Provides students with essential skills to critically evaluate wetland issues to make informed decisions. Prepares students to conduct research and communicate scientific information.

**GEOG 3705 Wetland Studies Laboratory**
1
* Prerequisite(s): GEOG 1010 OR ENVT 1110 OR BIOL 1010 OR CHEM 1210 OR Instructor Approval; and University Advanced Standing

Corequisite(s): GEOG 3700

Designed to be taken in conjunction with GEOG 3700. Applies techniques for sampling and mapping of wetland soils, plants, water, etc. and analyzes chemistry of wetland samples using modern instrumentation to address outstanding scientific questions related to wetlands. Addresses skills to interpret and present scientific data. Normally includes field trips.

**GEOG 3800 (Cross-listed with: HIST 3800) Environmental History of the United States**
3
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing

Examines human modification of the American landscape. Surveys the physical geography of the United States, landscape change during Native American to European transition, and causes of agricultural and industrial pollution. Topics include land ethics, processes of environmental degradation, technological remedies, history of federal laws and protection agencies. May include field experiences.

**GEOG 4100 Geospatial Field Methods**
3
* Prerequisite(s): (GEOG 3600 or GIS 3600) and MATH 1060; University Advanced Standing

Provides an introduction to measuring, recording, and finding geographic locations in the field using GPS and other methods widely used in industry and research. Applies GPS and other field techniques to scientific problems, and emphasizes hands-on experience with field equipment. Covers geographic reference frames, and integrates field data with desktop GIS software. Software fee of $18 applies. Lab access fee of $35 applies.

**GEOG 482R GIS Internship**
1 to 3
* Prerequisite(s): (GEOG 3600 and GEOG 3650 or equivalent), department approval, declared major in any Earth Science program, and University Advanced Standing

Engages students in supervised GIS work in a professional setting. Includes maintaining a journal of student experiences and preparing a paper summarizing their experience. A maximum of 3 credit hours may be counted toward graduation. May be graded Credit/No Credit.

**GEOG 489R Student Research in Geography**
1 to 4
* Prerequisite(s): Junior or Senior standing, instructor approval, and University Advanced Standing

Provides the opportunity to conduct research under the mentorship of an Earth Science department faculty member. Includes any combination of literature reviews, original research, and/or participation in ongoing departmental projects. Involves students in the methodology of original geographic research. Requires preparation and presentation of oral and/or written reports, typically presented in a public forum. May be repeated for a maximum of 4 credits toward graduation.

**GEOG 490R Special Topics in Geography**
1 to 4
* Prerequisite(s): Instructor approval and University Advanced Standing

Explores or examines special topics in geography. Topics vary depending on student demand and current topics of significance in geography. May be repeated for a maximum of 4 credits toward graduation.
### Geology (GEO)

#### GEO 1010 Introduction to Geology 3
Studies planet earth: its materials, structure, dynamics, and surface features. Taken alone it is designed for non-science students who want a broad introduction to Earth science and a greater appreciation of their physical surroundings. Taken in conjunction with laboratory exercises in GEO 1015, the class is sufficiently rigorous to articulate as an introductory geology class.

#### GEO 1015 Introduction to Geology Laboratory 1
Designed to be taken in conjunction with GEO 1010. Includes the identification of rocks, minerals, basic land forms and structures. Studies geologic processes occurring in desert, glacial, mountainous and other environments. Taken with GEO 1010, the class will articulate as an introductory earth science class. Course Lab fee of $10 for transportation, lab applies.

#### GEO 101H Introduction to Geology 3
Studied the structural and dynamic systems of the earth that create our environment. Stresses geology and related topics chosen for astronomy and meteorology.

#### GEO 1020 (Cross-listed with: BIOL 1200) Prehistoric Life 3
* Prerequisite(s): BIOL 1010 or GEO 1010 recommended
Studies prehistoric life. Uses the concepts of biology and physical science. Studies major groups of ancient animals and plants as found in the rock record. Includes aspects and fundamental concepts of biology, ecology, and geology.

#### GEO 1030 Natural Disasters and the Environment 3
Provides a broad introduction to Geology and the Earth Sciences through the lens of natural disasters and environmental interactions. Prepares students to think critically about what constitutes scientific knowledge and how such knowledge is produced and used. Studies the structure, composition, and dynamics of the Earth and how it changes through time. Examines how geologic processes, operating on many temporal scales, can impact humans and ecosystems through disasters related to tectonics (e.g., volcanism and earthquakes), surface processes (e.g., landslides, floods, sinkholes, permafrost melt) and environmental change (e.g., global warming and sea level rise). Builds foundation of knowledge about geology and pairs with basic analytical skills to evaluate critical issues related to the environment and society.

#### GEO 1040 The Dinosaurian World 3
Provides a broad introduction to Geology and the Earth Sciences through the lens of dinosaurs and other life during the Mesozoic Period of Earth's history. Prepares students to think critically about what constitutes scientific knowledge and how such knowledge is produced and used, especially when applied to organisms and ecosystems that no longer exist. Examines how plate tectonic processes and mass extinctions shaped dinosaurian evolution and how knowledge of rocks, minerals, and fossilization allows us to reconstruct ancient ecosystems. Encourages students to work collaboratively in evaluating paleontological data, thinking critically about unknown issues related to dinosaurian evolution, and to devise testable hypotheses to answer complex research questions.

#### GEO 1050 Geology of National Parks 3
Teaches the fundamentals of physical geology through the lens of the United States National Parks with a special focus on Arches, Zion, Canyonlands, Capitol Reef, and Bryce Canyon National Parks of Utah.

#### GEO 1080 Introduction to Oceanography 3
Introduces the origin and development of the oceans, marine geology and its effect on life in the seas. Discusses waves, tides, currents, and their impact on shorelines, the ocean floor, and basins. Examines physical processes as they relate to oceanographic concepts. Includes media as an alternative to the actual oceanic experience. Completers should have a basic knowledge and appreciation of the ocean's impact to the world's ecology.

#### GEO 1085 Introduction to Oceanography Laboratory 1
A basic laboratory experience in the physical aspects of Oceanography. Introduces applied skills in Oceanography such as Marine Geology and Oceanographic Chemistry. Studies the physical parameters that allow marine life to flourish. Uses maps to study the structure of the sea floor and its relationship to plate tectonics. Provides hands-on experiences with salinity and marine chemistry. Course lab fee of $10 applies.

#### GEO 1220 Historical Geology 3
* Prerequisite(s): GEO 1010
Examines the physical and biological evolution of the Earth from its origins 4.6 billion years ago up to present day. Reviews fundamental processes and principles of geology and biology. Develops tools for interpreting rocks and the fossil record. Explores important changes through geologic time, including plate tectonics, paleogeography, mountain building, geochemical cycles, climate, sea level, and the origin and evolution of the great diversity of life on Earth.

#### GEO 1225 Historical Geology Laboratory 1
* Prerequisite(s): GEO 1010
* Prerequisite(s) or Corequisite(s): GEO 1220
Is designed to be taken in conjunction with GEO 1220. Reviews fundamental processes and principles of geology and biology. Develops skills for identifying main types of minerals, rocks, and fossils. Develops tools for interpreting Earth history through analysis of rocks, fossils, and paleoclimatic data. Develops skills for correlating strata and reading geologic maps. Includes field trips to study local outcrops. Course lab fee of $10 applies.

#### GEO 202R (Cross-listed with: BIOL 202R) Science Excursion 1
For students interested in the natural world. Explores a wide variety of topics in science, including geology, botany, astronomy, zoology, ecology, and archeology. Consists of a minimum of a four-day field trip. Participants should gain an increased understanding of several fields of scientific study. May be repeated as many times as desired for interest; however a maximum of 3 credits may count toward graduation.

#### GEO 204R (Cross-listed with: BIOL 204R) Natural History Excursion 3
For students interested in the natural world. Promotes an in-depth look at a wide variety of topics in science, including geology, botany, astronomy, zoology, ecology, and archeology. Consists of 15 hours of lecture plus an appropriate field trip. Participants should gain an interdisciplinary understanding of science and nature. May be repeated for up to six credits toward graduation.
Course Descriptions

GEO 2070 (Cross-listed with: BIOL 2070)  
Desert Natural History  
3  
Integrates the teaching of geological and biological systems of the southwestern deserts. Discusses the ecology and geology of unique desert ecosystems; the rocks and strata providing the foundation of the landscape; the evolutionary and geological processes that mold the landscape and the species within it over time; and, the relationships between the physical and biological aspects of the ecosystem, including humans. Provides an intense, hands-on field course where faculty and students participate together in daily activities in a natural setting. Is held for part of the time on the UVU main campus and part of the time at the Capitol Reef Field Station. Requires students to live and learn at the field station for approximately 1/3 of the course.

GEO 2500  
Introduction to Field Geology  
3  
* Prerequisite(s): GEO 1015, GEO 1225  
Introduces students to qualitative and quantitative methods used for field geology building upon introductory courses in physical geology and historical geology. Provides students an opportunity to learn and apply field geology skills at a lower-division level, and prepares students for upper-division classes, such as Earth Materials, Sedimentary Geology, Structure and Tectonics, Geomorphology, Paleontology, and Field Experience. Includes a weekly lecture, introducing students to geologic mapping concepts, and several practical field-based experiences occurring outside of normal class schedules.

GEO 3000  
Environmental Geochemistry  
3  
* Prerequisite(s): GEO 1010, (MATH 1050 or MATH 1055), CHEM 1210, University Advanced Standing  
Introduces low temperature, environmental geochemistry with a focus on the use of quantitative measures to understand surficial geologic processes. Includes equilibrium thermodynamics and kinetics of chemical reactions, aqueous solutions, sorption and complexation, oxidation-reduction reactions, and the chemistry of the continental, marine, and atmospheric environments. Incorporates numerous examples to demonstrate how the conceptual framework can be applied in solving practical problems.

GEO 3070 (Cross-listed with: BIOL 3070)  
Advanced Desert Natural History  
3  
* Prerequisite(s): University Advanced Standing  
Integrates the geological and biological systems of the southwestern deserts. Includes discussion of the ecology and geology of unique desert ecosystems; the rocks and strata providing the foundation of the landscape; the evolutionary and geological processes that mold the landscape and the species within it over time; and, the relationships between the physical and biological aspects of the ecosystem, including humans. Provides an intense, hands-on field course where faculty and students participate together in daily activities and experimental design in a natural setting. Is held part of the time on the UVU main campus and part of the time at the Capitol Reef Field Station. Requires students to live and learn at the field station for approximately 1/3 of the course.

GEO 3080  
Earth Materials WE  
3  
* Prerequisite(s): GEO 1010, GEO 1015, and University Advanced Standing; CHEM 1210 or other chemistry course recommended  
* Corequisite(s): GEO 3085  
Investigates the physical characteristics, chemical properties, formation, and distribution of geologically significant igneous and metamorphic rocks and minerals. Develops ability to examine rocks and minerals, and analyze their chemical properties to understand geologic processes. Involves field trips, including the possibility of weekend trips. Course lab fee of $22 for transportation, lab applies.

GEO 3085  
Earth Materials Laboratory  
1  
* Prerequisite(s): GEO 1010, GEO 1015, and University Advanced Standing; CHEM 1210 or other chemistry course recommended  
* Corequisite(s): GEO 3080  
Focuses on identification and classification of common rocks and minerals in hand sample and introduces optical mineralogy and petrography. Investigates the occurrence and formation of common rocks and minerals through direct observation of their properties and occurrence. Involves field trips, including the possibility of weekend trips.

GEO 3100  
Isotope Geochemistry  
3  
* Prerequisite(s): GEO 1010, (MATH 1050 or MATH 1055), CHEM 1210 and University Advanced Standing  
Provides an introduction to the principles and applications of isotope geochemistry, which plays an important role in a wide variety of geological, biological, and environmental investigations, and summarizes the analytical techniques used in the field. Examines the theory of radiometric dating and provides an overview of the most commonly used geochronometers. Focuses on stable isotopes with emphasis on oxygen, hydrogen, carbon, nitrogen, and sulfur and with applications in paleoclimatology, ecology and paleoecology, archeology, and hydrology.

GEO 3105  
Isotope Geochemistry Laboratory  
1  
* Prerequisite(s): GEO 1010, (MATH 1050 or MATH 1055), CHEM 1210 and University Advanced Standing  
Explores the analysis and interpretation of real isotope data and provides hands-on experience in their use to solve problems and answer questions in geochronology, paleoclimatology, hydrology, and archeology. Requires data analysis utilizing Microsoft Excel.

GEO 3200  
Geologic Hazards  
3  
* Prerequisite(s): GEO 1010, GEO 1015, and University Advanced Standing  
* Corequisite(s): GEO 3205  
Examines the ways in which geologic hazards (including earthquakes, landslides, volcanoes, problem soils, ground subsidence and earth fissures) impact civilization. Studies the processes responsible for these hazards, how to geologically assess whether each of these hazards is a concern at a particular site, how each type of hazard can be planned for, and what laws and regulations need to be considered during site investigations. Facilitates discussion of hazards, vulnerability, risk and societal planning/mitigation. Course Lab fee of $21 for transportation, lab applies.

GEO 3205  
Geologic Hazards Laboratory  
1  
* Prerequisite(s): GEO 1010, GEO 1015, and University Advanced Standing  
* Corequisite(s): GEO 3200  
Investigates geologic hazards through field observation, mapping, geospatial analyses, quantitative analyses, and report writing. Applies geologic hazards science to associated laws and regulations. Facilitates discussion of hazards, vulnerability, risk and societal planning/mitigation.
GEO 3500 (Cross-listed with: GEOG 3500)  
Geomorphology WE  
4  
* Prerequisite(s): GEO 1010 or GEOG 1000; University Advanced Standing

Examines the geologic processes operating at the Earth’s surface to understand the origin of our planet’s varied landscapes. Explores how landforms respond to climate change, tectonic forcing, and changes in land use. Addresses common geomorphic processes including weathering, soils, hill slope processes, fluvial processes and landforms, aeolian transport, glacial and periglacial environments, karst, and coastal processes. Course lab fee of $21 applies.

GEO 3700  
Structure and Tectonics  
4  
* Prerequisite(s): GEO 1220, GEO 3080, (PHYS 2010 or PHYS 2210), and University Advanced Standing

Investigates the fundamentals of global plate tectonics and rock deformation. Includes applications to petroleum geology, environmental geology, and engineering geology. Explores geometric techniques of structural analysis in the laboratory. Involves field trips, possibly including weekend trips. Course lab fee of $21 for transportation, lab applies.

GEO 4080  
Petrology  
3  
* Prerequisite(s): GEO 3080, CHEM 1220, and University Advanced Standing  
* Corequisite(s): GEO 4085

Examines the Earth’s rock factories, specifically igneous and metamorphic processes and how they are related to plate tectonics. Delves into geochemistry, applied thermodynamics, and kinetics in igneous, sedimentary, and metamorphic rocks as it pertains to the genesis of these rocks. Further explores the techniques of petrographic microscopy and introduces other analytical techniques such as scanning electron microscopy, electron probe microanalysis, and mass spectrometry. Requires students to collect, analyze, and interpret petrologic data to gain insight into a petrogenetic process. Course lab fee of $21 applies.

GEO 4085  
Petrology Laboratory  
1  
* Corequisite(s): GEO 4080

Takes a hands-on approach to petrology. Provides opportunities for the student to collect and work with data to illuminate a variety of petrologic processes. Implements rock and mineral sample reference collections, field trip(s), petrographic microscopes, sample preparation labs, analytical instrumentation to investigate petrogenetic processes.

GEO 4500  
Sedimentary Geology  
4  
* Prerequisite(s): GEO 1220, GEO 1225, GEO 3080, and University Advanced Standing; CHEM 1210 or other chemistry recommended

Explores the origin, classification, and spatiotemporal distribution of sedimentary rocks. Examines the fundamental principles of sedimentology, petrology, and stratigraphy. Reviews weathering processes and soil formation. Develops analytical skills regarding particle erosion, transportation, and deposition. Develops skills for identifying and classifying sedimentary rocks. Develops tools for describing stratigraphic sections and interpreting the rock record. Develops skills for correlating strata and reading geologic maps. Develops critical thinking and writing skills. Includes field trips to study various outcrops in the state of Utah. Lab access fee of $21 applies.

GEO 4510  
Paleontology  
4  
* Prerequisite(s): GEO 1220, GEO 1225, GEO 3080, (BIOL 1010 or BIOL 1610), and University Advanced Standing; GEO 4500 recommended

Exposes students to a wide variety of topics encompassed within the field of paleontology. Offers substantial knowledge of the major groups of life represented in the fossil record. Discusses the most fundamental concepts in paleontology, such as key principles of evolution and paleoecology. Offers an understanding of why paleontologists do, why the field is so crucial, and why all earth scientists should have at least a basic understanding of paleontology. Requires two weekend field trips (dates will be discussed in class). Course lab fee of $21 for transportation, lab applies.

GEO 4600  
Field Experience  
6  
* Prerequisite(s): GEO 3080, GEO 3700, GEO 4500, and University Advanced Standing

Is an intensive field course giving students hands-on experience with several aspects of Earth Science field work. Involves 8 to 10 hours of field work per day, for three to five days per week, for four to six weeks. Is the required capstone experience for Geology majors. Course lab fee of $650 for practical experience applies.

GEO 4790  
Hydrogeology  
4  
* Prerequisite(s): MATH 1050 or MATH 1080, GEO 1010, and University Advanced Standing (MATH 1210, PHYS 2210 OR PHYS 2010, and GEOG 3600 or GIS 3600 Recommended)

Reviews concepts related to the occurrence and flow of groundwater and the management of these resources. Examines the governing equations, analyses of aquifer properties, well tests and construction, regional groundwater flow, field methods, groundwater modeling, and groundwater contamination. Provides opportunities for students to investigate a specific problem, field site, and/or service learning project related to hydrogeology. Course fee of $21 applies.

GEO 480R  
Earth Science Seminar  
.5  
* Prerequisite(s): University Advanced Standing

Exposes students to current research topics in Earth Science and related fields. Provides an opportunity for students to attend bi-weekly lectures presented by department faculty and invited speakers. Incorporates lectures that are usually a summary of the speaker's recent research results, or investigative projects in an earth science industry. May be repeated for a maximum of 1 credits toward graduation.

GEO 482R (Cross-listed with: ENVT 482R)  
Geologic Environmental Internship  
1 to 3  
* Prerequisite(s): GEO 1010 or ENVT 1110; 12 credit hours of any GEO, GEOG, or ENVT courses; declared major in any Earth Science program and University Advanced Standing

Engages students in supervised geologic or environmental work in a professional setting. Requires approval by the Chair of the Department of Earth Science. Includes maintaining a journal of student experiences and preparing a paper summarizing their experience. A maximum of 3 credit hours may be counted toward graduation. May be graded Credit/No Credit.

GEO 489R  
Student Research  
1 to 4  
* Prerequisite(s): GEO 1015, Junior or Senior standing, instructor approval, and University Advanced Standing

Provides students the opportunity to conduct research under the mentorship of an Earth Science department faculty member. Includes any combination of literature reviews, original research, and/or participation in ongoing departmental projects. Involves students in the methodology of original geologic research. Requires preparation and presentation of oral and/or written reports, typically presented in a public forum. May be repeated for a maximum of 6 credits total toward graduation.
Course Descriptions

GEO 490R
Special Topics in Geology
1 to 4
* Prerequisite(s): GEO 1010, GEO 1015, Junior or Senior standing, instructor approval, and University Advanced Standing

Explores or examines special topics in geology. Topics vary depending on student demand and current topics of significance in geology. May be repeated for a maximum of 8 credits toward graduation.

GEO 495R
Independent Study
1 to 4
* Prerequisite(s): GEO 1010, GEO 1015, and University Advanced Standing

Requires an independent study program to be developed with one or more Earth Science faculty member and approved by a committee of Earth Science faculty. Includes some combination of literature review, field work, numerical analysis, and/or laboratory analysis. Involves the preparation of a written report. An oral presentation may also be required. May be repeated for up to 4 credits.

GEO 525R
Advanced Topics for Geology Teachers
1 to 5
* Prerequisite(s): Departmental Approval

For licensed teachers or teachers seeking to recertify their earth science or integrated science endorsements from the Utah State Office of Education. Teaches principles of geology and pedagogy of teaching geology for teachers in public or private schools. Emphasis will be placed on correlation with the Utah Core Curriculum, the National Science Education Standards, and the Benchmarks of Project 2061. Topics will vary.

German (GER)

GER 1010
Beginning German I
4
Provides an introduction to the language and culture of German-speaking countries. Emphasizes listening, speaking, reading, and writing skills along with basic grammar and vocabulary within the cultural context of modern German-speaking societies. Uses an eclectic method of instruction, with extra attention given to oral and written proficiency. Requires weekly lab. Lab access fee of $10 applies.

GER 1020
Beginning German II
4
* Prerequisite(s): Student should have equivalent knowledge of GER 1010

Provides a second-semester introduction to the language and culture of German-speaking countries. Emphasizes listening, speaking, reading, and writing skills along with basic grammar and vocabulary within the cultural context of modern German-speaking societies. Uses an eclectic method of instruction, with extra attention given to oral and written proficiency. Requires weekly lab. Lab access fee of $10 applies.

GER 1100
German Conversation I
4
A total immersion course taught in a classroom in a German speaking country. Students live in native, German-speaking homes or other total immersion environments. Practices creative language in conversation to develop proficiency in the German language at the novice level. Includes intensive listening and speaking experience to improve aural-oral proficiency. Students will attend cultural and sporting events. Offered only with the Summer Study Abroad program. May be taken concurrently with GER 2700.

GER 115R
German Conversation I
1
* Prerequisite(s): Departmental Approval

Offers novice German speakers opportunities to enhance their speaking proficiency in the target language by focusing on oral verbal production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, sharpen listening comprehension, and develop conversational strategies such as circumlocution and managing a conversation with useful expressions for starting a conversation, gaining time to think, helping the other speaker, seeking agreement, etc. Contrasts with all other first year courses which must strive to produce mastery of the whole range of language acquisition components, including writing, grammar, etc. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of speech opportunities and defusing concern for such matters as spelling, etc. Increases mastery of lexical items through increased frequency of oral usage. May be repeated for a maximum of 3 credits toward graduation.

GER 2010
Intermediate German I
4
* Prerequisite(s): Students should have equivalent knowledge of GER 1020

Reviews and builds upon the grammar, reading, writing and conversational skills learned in the first year courses. Introduces readings and discussions on the history, culture, and literature of the German speaking world, maintaining a focus on oral proficiency. Lab access fee of $10 applies.

GER 202G
Intermediate German II
4
* Prerequisite(s): Students need equivalent knowledge of GER 1020

Studies fourth-semester conversational German that is used in daily settings. Includes culture study, pronunciation, reading, and grammar. Emphasizes conversation in real life situations. Uses field trips and guest lecturers. Prepares students to enter the advanced level of German. Completers should be able to converse enough to visit or work in a German speaking country. Lab access fee of $10 applies.

GER 215R
German Conversation II
1
* Prerequisite(s): Students should have equivalent knowledge of GER 1020

Offers lower division / novice German speakers opportunities to enhance their speaking proficiency in the target language by focusing on oral verbal production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, sharpen listening comprehension, and develop conversational strategies such as circumlocution and managing a conversation with useful expressions for starting a conversation, gaining time to think, helping the other speaker, seeking agreement, etc. Contrasts with all other first year courses which must strive to produce mastery of the whole range of language acquisition components, including writing, grammar, etc. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of speech opportunities and defusing concern for such matters as spelling, etc. Increases mastery of lexical items through increased frequency of oral usage. May be repeated for a maximum of 3 credits toward graduation.

GER 2700
Immersion German Civilization and Culture
4
A total immersion course of classroom study and experience in a German speaking country. Students will live in native, German-speaking homes or other total immersion environments. Includes classroom study, supervised travel of cultural interest, and attendance at various cultural and sporting events. Includes written response, journals, and examinations. Offered only with the Summer Study Abroad program. May be taken concurrently with GER 1110.

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GER 3030  
**German Composition and Conversation**  
3  
* Prerequisite(s): (GER 202G or equivalent experience) and University Advanced Standing

Expands knowledge and skill base developed in lower-division courses with an emphasis in idiomatic expression in spoken and written German. Using authentic texts, students will learn to read, speak, and write with more precision and accuracy. Successful completion of this course will prepare students to participate fully in subsequent advanced courses.

GER 3050  
**Advanced German**  
3  
* Prerequisite(s): It is recommended that students have GER 202G, one-year residency in German speaking country, or instructor approval

Designed for non-native German speakers who have lived in a German speaking country for at least one year. Includes a review of grammar and an introduction to German literature, art, music, and expository writing. Lab access fee of $10 applies.

GER 3200  
**Business German**  
3  
* Prerequisite(s): (GER 3050 or equivalent knowledge) and University Advanced Standing

Teaches language structures and terminology specific to the German language in the field of Business. Examines the cultural issues present in the interactions with German-speaking clients. Prepares students to work with German-speaking clients in future careers in business, marketing, banking or translation/interpreting. Explores how students can effectively do business with German companies within the framework of German culture. Includes current materials dealing with today's issues. Will be taught entirely in the German language. Lab access fee of $10 applies.

GER 351G  
**German Culture and Civilization**  
3  
* Prerequisite(s): GER 3050 and University Advanced Standing

Explores chronologically the cultural formation and development of German-speaking societies and cultures in Germany, Austria, Switzerland, and other German-speaking regions. Discusses the ethnic development and linguistic history of these societies and countries. Presentations and class instruction conducted entirely in German.

GER 380R  
**Topics in German Studies**  
3  
* Prerequisite(s): University Advanced Standing

Explores a variety of subjects relevant to the study of German language, literature, history and culture. Engages students in critical analysis and discourse. Possible topics may include Medieval German literature, Weimar film, History of the German Language, current events in Germany, or the Holocaust. May be repeated for a maximum of 6 credits toward graduation.

GER 4200  
**Advanced Business German**  
3  
* Prerequisite(s): (GER 3200 or equivalent knowledge) and University Advanced Standing

For those planning to pursue the Bachelor of Science with an emphasis in International Business or related field. Traces in depth German business terminology, documentation, case studies and transactions. Reviews and builds upon the business terminology learned in German 3200. Explores how students can effectively do business with German companies within the framework of German culture. Includes current materials dealing with today's issues. Taught entirely in German.

GER 4410  
**History of the German Language**  
3  
* Prerequisite(s): GER 3050 and University Advanced Standing

Explores the history of the German language from its Indo-European roots to its present form today. Investigates the differences between the major families of Germanic languages and looks at examples of these languages in the literary record, with a focus on the direct predecessors of modern German, especially Old High German, Middle High German, and Early New High German. Introduces historical linguistics to understand the processes of change in terms of morphology, phonology, and syntax, and basic phonetics.

GIS 1600  
**Principles of Geographical Information Science**  
3  

Introduces strategies for integrating GIS to support instruction and learning on any topic of spatial data. Discusses concepts of basic GIS activities that enhance student learning and critical thinking. Teaches skills to visualize global, regional and local data and establish connections to those disciplines. Explains design standards and processes for investigating a problem and preparing a GIS map. Introduces ArcGIS Online to increase GIS applicability to the workplace.

GIS 2640  
**Fundamentals of Geographic Information Systems**  
3

Introduces the concepts and components of a Geographic Information System (GIS). Includes the essential skills of operating a functional GIS through the use of ArcGIS 10.x software. Explains the operational processes of spatial data acquisition, editing, file geodatabase design, spatial query and display, spatial analysis, map layouts and various visualizations, preliminary application development, and project applications. Describes various GIS data sources. Lab access fee of $45 for computers applies.

GIS 3600  
**Introduction to Geographic Information Systems**  
4  
* Prerequisite(s): [Completion of a course that meets the PP (Physical Science) or SS (Social Science) general education requirement is recommended] and University Advanced Standing

Introduces the history, theory, and operation of Geographic Information Systems (GIS). Includes an introduction to GIS data sources, database design, data input, spatial analysis, and map production. Offers valuable preparation for careers in geology, geography, geographic information systems, geomatics, planning, surveying, marketing, environmental technology, biology, engineering, and other related fields. Lab access fee of $35 for computers applies. Software fee of $18 applies.
Course Descriptions

GIS 3620
Advanced Geographic Information Systems
3
* Prerequisite(s): (GIS 3600 or GEOG 3600) and University Advanced Standing

Presents Geospatial data and modeling principles and techniques using raster and vector geoprocessing. Teaches Geovisualization and Geospatial information sources, digital terrain modeling, spatial data analysis, and mapping project implementation. Describes concepts of real property related to land registration and information systems and the value of maps for governance, commerce, and research of social and environmental systems regionally, nationally, and globally. Software fee of $18 applies. Lab access fee of $45 for computers applies.

GIS 3630
Geographic Information Systems Application Development
3
* Prerequisite(s): GIS 3600 or GEOG 3600, GIS 3620 or GEOG 3650, and University Advanced Standing

Develops customization skills for geospatial data, modeling, and automation. Introduces and defines basic Python concepts and scripting environments for the most common GIS software. Delineates common scripting errors and applies Python syntax rules when writing scripts. Lab access fee of $45 applies.

GIS 3640
Thematic Mapping Environmental Impacts
3
* Prerequisite(s): GIS 2640 and University Advanced Standing

Analyzes ways to geographically visualize the impact of natural disasters, energy processes, human impacts, and other impacts on the environment. Reviews the regional and global interrelationships of land, water, and atmosphere to the environment. Involves producing a thematic global and regional mapping project(s) considering the environmental impacts or potential impacts as presented in this course. Lab access fee of $45 for computers applies.

GIS 3650
Thematic Mapping Culture and Societies
3
* Prerequisite(s): GIS 2640 and University Advanced Standing

Focuses on thematic maps of human activity covering the major cultural regions of the world considering cultural, political, and economic environments. Presents various ways to cartographically depict sociological data such as; population, religion, language, migration, and industries, etc.. Involves producing a thematic global and regional mapping project(s) as presented in this course. Lab access fee of $45 for computers applies.

Greek (GRK)

GRK 1010
Beginning Ancient Greek I
4
* Prerequisite(s): ENGL 1010 or ENGH 1005

Studies Ancient Greek language at the introductory level, focusing primarily on Attic Greek. Centers on grammar and textbook exercises with some analysis of literary and/or philosophical selections in Ancient Greek. Relates particularly to students interested in studying Ancient Greek culture and thought.

GRK 1020
Beginning Ancient Greek II
4
* Prerequisite(s): GRK 1010

Continues study of the Ancient Greek language at the introductory level, focussing primarily on Attic Greek. Centers on grammar and textbook exercises with some analysis of literary and/or philosophical selections in Ancient Greek. Relates particularly to students interested in studying Ancient Greek culture and thought.

GRK 2010
Intermediate Ancient Greek I
4
* Prerequisite(s): GRK 2010

Studies the Ancient Greek language at the intermediate level, focusing primarily on Attic Greek. Centers on grammar and textbook exercises with some analysis of literary and/or philosophical selections in Ancient Greek. Relates particularly to students interested in studying ancient Greek culture and thought.

GRK 2020
Intermediate Ancient Greek II
4
* Prerequisite(s): GRK 2010

Studies Ancient Greek language at the intermediate level, focusing primarily on Attic Greek. Centers on grammar and textbook exercises with some analysis of literary and/or philosophical selections in Ancient Greek. Relates particularly to students interested in studying Ancient Greek culture and thought.

GRK 3010
Readings in Ancient Greek
3
* Prerequisite(s): GRK 2020 and University Advanced Standing

Instructs students in the translation of selected Ancient Greek poetry and prose.

History (HIST)

HIST 1500
World History to 1500
3

Serves as an introduction to pre-modern world civilization. Surveys cultural, economic, intellectual, and social history up to the year 1500, with special attention to the rise of world religions.

HIST 151G
World History from 1500 to the Present
3

Serves as an introduction to modern world civilization. Surveys cultural, economic, intellectual and social developments from 1500 to the present. Emphasizes global, comparative, and intercultural issues.

HIST 1700
American Civilization
3

Stresses movements and developing institutions that are important for an appreciation of American History from the Pre-Columbian period to the present. Discussions include analysis of developing political, economic, and social institutions and their interrelationships with, and impact upon, the geographical features of the land. Includes book reports, oral response, research papers, media presentations and applications to current events.

HIST 170H
American Civilization
3

Stresses movements and developing institutions that are important for an appreciation of American History from the Pre-Columbian period to the present. Discussions include analysis of developing political, economic and social institutions and their interrelationships with and impact upon the geographical features of the land. The honors section extends the course’s historical inquiry with additional written and reading requirements which will allow the student a fuller participation in historical debate and the process of “doing” history.

HIST 1740
US Economic History
3

Studies economic development in America, with emphasis on resources, commerce, agriculture, capital, manufacturing, government, and labor organizations. Canvas Course Mat $48/Cengage applies.
HIST 204G
Colonial Latin America
3
Introduces the history of Latin America from the earliest New World inhabitants through the nineteenth-century Latin American Wars for Independence. Examines the social, political, economic, and cultural developments of Latin America. Explores the complex dynamics that shaped pre-Columbian and colonial societies which culminated in early nineteenth-century independence movements.

HIST 205G
Modern Latin America
3
Introduces the history of Latin America from 1820 to the present. Focuses on the key issues and themes of the last 190 years including social revolution, dependency and foreign intervention, gender and race. Includes case studies from specific countries.

HIST 2700
US History to 1877
3
Surveys the origins of the United States from the Pre-Columbian era and early colonization through Reconstruction. Focuses on encounters among indigenous, African and European peoples; gender, race, and Atlantic slavery; the causes and consequences of the American Revolution; the westward expansion of the United States; and the sectional crisis that lead to the American Civil War.

HIST 270H
US History to 1877
3
Examines the first half of the American experience, beginning with the collapse of Post-Civil War Reconstruction and concluding with contemporary American issues. Surveys social, political, cultural, and diplomatic developments during this period. The honors section extends the course's historical inquiry with in-depth discussions and additional written and reading requirements, all of which allow the student a fuller participation in historical debates and the process of "doing" history.

HIST 271H
US History since 1877
3
Examines the second half of the American experience, beginning with the collapse of Post-Civil War Reconstruction and concluding with contemporary American issues. Surveys social, political, cultural, and diplomatic developments during this period. The honors section extends the course's historical inquiry with in-depth discussions and additional written and reading requirements, all of which allow the student a fuller participation in historical debates and the process of "doing" history.

HIST 290H
Independent Study
1
* Prerequisite(s): Honors Director Approval
Provides independent study for Honors students unable to secure a desired class within regular semester curriculum offering. Involves designing and completing readings and other projects at the lower-division level in cooperation with the Honors director. Maximum of 3 credits may be applied toward Honors graduation.

HIST 290R
Independent Study
1 to 4
* Prerequisite(s): Dean and/or Department Chair approval
Provides independent study for students unable to secure a desired class within regular semester curriculum offering. With approval of dean and/or department chair, student and instructor design and complete readings and other projects at the lower-division level. Maximum of 6 credits may be applied toward graduation.

HIST 3010
The Historians Craft WE
3
* Prerequisite(s): HIST 1500, HIST 151G, HIST 2700, and HIST 2710 and University Advanced Standing
Introduces the disciplines of public history and digital history, including methodology and literature. Examines the first half of the American experience, beginning with the collapse of Post-Civil War Reconstruction and concluding with contemporary American issues. Surveys social, political, cultural, and diplomatic developments during this period. The honors section extends the course's historical inquiry with in-depth discussions and additional written and reading requirements, all of which allow the student a fuller participation in historical debates and the process of "doing" history.

HIST 3020
Public and Digital History
3
* Prerequisite(s): University Advanced Standing
Introduces the disciplines of public history and digital history, including methodology and literature. Examines the first half of the American experience, beginning with the collapse of Post-Civil War Reconstruction and concluding with contemporary American issues. Surveys social, political, cultural, and diplomatic developments during this period. The honors section extends the course's historical inquiry with in-depth discussions and additional written and reading requirements, all of which allow the student a fuller participation in historical debates and the process of "doing" history.

HIST 3030
Introduction to African History
3
* Prerequisite(s): University Advanced Standing
Introduces the discipline of African history, with an emphasis on the historical and geographical context of Africa from the sixteenth to the twentieth century. The course covers the history of the African continent from 1500 to the present, focusing on the impact of European colonialism, the slave trade, and the struggle for independence. The course also examines the development of African societies and their influence on Western civilization and our own cultural context.

HIST 3110
Greek History
3
* Prerequisite(s): University Advanced Standing
Explores historical and geographical context of Greece from 1600 B.C.E. to the Roman conquest in 30 B.C.E. spanning Minoan, Mycenaean, Hellenic, and Hellenistic ages. Examines the development of social/cultural, political, and economic institutions emphasizing their influence on Western civilization and our own cultural context.

HIST 3130
Roman History
3
* Prerequisite(s): University Advanced Standing
Examines the growth of Rome from a small city-state to a continental empire and its collapse covering from 1000 BCE to 700 CE. Discusses political and cultural change in the city of Rome and the way Rome and its neighbors interacted and affected each other. Analyzes the legacy of Rome in the modern day including art, political theory, and religion.
Course Descriptions

HIST 3140  
Roman Empire  
3  
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing.

Covers Roman history from the first century B.C. to the fourth century A.D. Surveys social, cultural, political, economic and military aspects of the Roman Empire. Examines the influence of Imperial Rome on Western Civilization. Part of a two semester sequence on Roman history. Each semester may be taken independently.

HIST 3150  
Medieval Europe  
3  
* Prerequisite(s): University Advanced Standing

Introduces the history of Europe from the collapse of Greco-Roman civilization to the fifteenth century. Covers the rise of Western Christendom, the challenge of Islam, the twelfth-century renaissance, the flowering of medieval art, education and literature, feudalism and rural economies, the commercial revolution, human and ecological calamities. Considers the medieval foundations of modern European culture, politics, and society.

HIST 3160  
Renaissance and Reformation Europe 1350 to 1600  
3  
* Prerequisite(s): University Advanced Standing

Explores European history from the Italian Renaissance to the Reformation era, including the Age of Exploration. Focuses on cultural, religious, and social interactions and changes that established the modern worldview.

HIST 3170  
Absolutism Enlightenment and Revolution Europe from 1600 to 1815  
3  
* Prerequisite(s): University Advanced Standing

Explores the major political, social, and intellectual developments in European history from the Age of Absolutism to the French Revolution.

HIST 3180  
Nineteenth Century Europe  
3  
* Prerequisite(s): University Advanced Standing

Analyzes political, economic, and social transformations in Europe in the nineteenth century. Traces the development of nationalism and the rise of various political and social movements. Introduces cultural and intellectual currents that shaped the history of Europe. Identifies the significance of European colonialism in the era. Discusses legacies of nineteenth-century European ideologies.

HIST 3190  
Twentieth Century Europe  
3  
* Prerequisite(s): University Advanced Standing

Surveys major forces, events and experiences that have shaped Europe and defined its place in the contemporary world. Examines industrialization, nationalism, colonial empires, world wars, Cold War polarization, the European Union, and migration. Explores social movements and major cultural and intellectual trends.

HIST 320G  
Women in American History to 1870 GI WE  
3  
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing

Surveys women's experiences in America from the pre-Columbian era to 1870. Explores how race, ethnicity, sexuality, and class shaped women's lives. Emphasizes discipline-specific writing.

HIST 320R  
Issues and Topics in Global History  
3  
* Prerequisite(s): University Advanced Standing

Surveys specific global issues as decided by the instructor. Analyzes the context and legacy of the topic using primary sources through lectures and class activities. Introduces a variety of viewpoints and methods in the historical study of the topic. May be repeated for a maximum of 6 credits toward graduation.

HIST 321G  
Women in American History since 1870  
3  
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing

Surveys women's experiences in American culture from 1870 to the present. Emphasizes ways in which race, ethnicity, and class shaped women's experiences.

HIST 322G  
History of the American West to 1850 GI WE  
3  
* Prerequisite(s): University Advanced Standing

Surveys the development of the American West from the pre-Columbian era to 1850 and places the West in both a national and North American context. Explores topics such as pre-contact cultures, Indian-European relations, exploration, colonization, conquest, territorial expansion, resource exploitation, as well as an examination of economic, political, social, and cultural developments that created a distinct regional identity. Emphasizes discipline-specific writing.

HIST 323G  
History of the American West since 1850 GI WE  
3  
* Prerequisite(s): University Advanced Standing

Surveys the development of the American West from 1850 to the present. Explores key issues such as cultural encounters in the West, economic development, urban growth, rural life, the politics of race, ethnicity, class and gender, environmental change, the role of the federal government, and the cultural symbolism of the American West. Emphasizes discipline-specific writing.

HIST 3260  
History of Utah  
3  
* Prerequisite(s): University Advanced Standing

Surveys the history of Utah and its peoples from prehistoric times to the present, covering cultural, social, economic, political, and religious topics. Places Utah history within regional and national contexts. Can be used for teacher education and re-certification requirements.

HIST 330G  
Mediterranean World 1500-1800  
3  
* Prerequisite(s): University Advanced Standing

Examines religious, political, and social life of the Mediterranean Basin from 1500 to 1800. Focusses on the shared traditions, rituals, and cultural practices of Christians, Jews, and Muslims of the Mediterranean Basin. Analyzes the legacy and influence of this period of Mediterranean History on today's world.

HIST 3320  
Modern Britain  
3  
* Prerequisite(s): University Advanced Standing

Surveys major themes in British history from the Glorious Revolution to the end of the 20th century.

HIST 3340  
The French Revolution and Napoleon  
3  
* Prerequisite(s): University Advanced Standing

Examines important individuals, events, and ideas of the French Revolution and Napoleonic era. Explores the causes of the French Revolution; the political, social, and cultural changes it brought about; Napoleon's rise to power and rule; and legacies of the era. Analyzes the development of nationalism and notions of rights. Investigates revolutionary debates over slavery and citizenship. Focuses on global dimensions of the French Revolution and Napoleonic era.
HIST 3440
The History of World War I
3
* Prerequisite(s): University Advanced Standing
Explores the numerous factors leading to, sustaining, and concluding World War I, including military developments, diplomacy, and political and economic rivalries. Discusses various battles and campaigns of the conflict, the experiences of soldiers and civilians, the crumbling of old governments, colonial aspects of the conflict, the cultural significance of the war, and the beginnings of modern genocide.

HIST 345G
The History of World War II
3
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing
Deals with background and cases, course, conduct, and consequences of World War II in Europe and Asia, with special attention to strategy, tactics, diplomacy, and politics.

HIST 3540
History of South Africa
3
* Prerequisite(s): University Advanced Standing
Explores the history of South Africa from first peoples to the present, with special attention to twenty-century developments. Surveys Khoisan and Bantu societies, Dutch settlement at the Cape of Good Hope, British colonization, the Zulu kingdom, the Great Trek, British-Boer conflict, the mining economy, Union, segregation and Apartheid, and the struggle for non-racial democracy.

HIST 3650
Imperial Russia--Autocracy to Opposition 1696-1917
3
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing
Presents the evolution of Russian economics, politics, and society between c. 1696 and 1917. Focuses on such movements and events as the Enlightenment in Russia, constitutionalism, bureaucratization, industrialization, and revolutions.

HIST 366G
The History of Modern Russia--1864 to Present
3
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing
Surveys the history of Imperial Russia, the Soviet Union, and Russia from 1864 to the present, with special attention to Russia's politics, economics, and society.

HIST 371R
Issues and Topics in American History
3
* Prerequisite(s): University Advanced Standing.
Surveys specific US history issues as decided by the instructor. Analyzes the context and legacy of the topic using primary sources through lectures and class activities. Introduces a variety of viewpoints and methods in the historical study of the topic. May be repeated for a maximum of 6 credits toward graduation.

HIST 3730
American Origins to 1790
3
* Prerequisite(s): University Advanced Standing
Surveys the origins of the United States from the Pre-Columbian era and early colonization through the Early Republic. Focuses on adaptation and transformations of Native, African and European peoples; the causes and consequences of the American Revolution; the US Constitution, and the search for a national identity.

HIST 3731
US History-Early Republic through the Progressive Era
3
* Prerequisite(s): University Advanced Standing
Surveys United States history thematically and focuses upon social, cultural, economic, and political movements. Includes topics such as the New Republic, slavery, westward expansion, sectionalism, the Civil War and its aftermath, immigration, reform, and the development of modern culture.

HIST 3732
U.S. History-Progressive Era to the 21st Century
3
* Prerequisite(s): University Advanced Standing
Surveys social, cultural, political, and economic movements and turning points in the U.S. from Progressivism through the 21st century. Builds an inclusive, multicultural narrative for various topics including reform and radical movements, wartime crucibles, the U.S. and the world, inclusion and exclusion in U.S. history, and the construction of a present-day U.S.

HIST 3740
American Revolution
3
* Prerequisite(s): University Advanced Standing

HIST 3745
Civil War and Reconstruction
3
* Prerequisite(s): University Advanced Standing
Describes forces at work in the antebellum period that led to sectionalism and eventually to civil war. Examines military, political, social, economic, and racial issues before, during, and after the war. Analyzes the Reconstruction Era and its historiography.

HIST 3800 (Cross-listed with: GEOG 3800)
Environmental History of the United States
3
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing
Examines human modification of the American landscape. Surveys the physical geography of the United States, landscape change during Native American to European transition, and causes of agricultural and industrial pollution. Topics include land ethics, processes of environmental degradation, technological remedies, history of federal laws and protection agencies. May include field experiences.

HIST 382G
American Indian History to 1890
3
* Prerequisite(s): University Advanced Standing
Examines major themes, events, processes, and people including migration, social, cultural, and political change, military conflict, trade, geography, and other pertinent historic variables and events which characterized life for many of the indigenous communities in North America, specifically the region now recognized as the United States through 1890. Introduces students to ethnohistory, primary and secondary sources, and analysis of historical events and sources.

HIST 384G
American Indian History since 1890
3
* Prerequisite(s): University Advanced Standing
Examines major themes, processes, events, and people from the Wounded Knee Massacre of 1890 to the present. Provides an examination of how American Indians shifted the emphasis of resistance to social, political, and cultural assimilation from armed conflict to the employment of legal and political strategies for achieving self-determination.

HIST 4130
Anti-Semitism and the Holocaust
3
* Prerequisite(s): University Advanced Standing
Analyzes the rise of modern anti-semitism in the late 19th and early 20th century and the factors that contributed to the mass destruction of Jews. Explores how the same racial ideas that furthered anti-semitism were used against Gypsies, Slavs, and other minority groups.
Course Descriptions

HIST 4140
Genocide in the Twentieth Century
3
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing

Explores and analyzes the major genocides of the twentieth century: the Armenian Massacre, the Holocaust, the Killing Fields of Cambodia, the Balkan genocides, and the Rwandan genocide. Promotes a greater understanding of why and how genocides occurred in the twentieth century. Teaches and improves critical thinking, writing, and comprehension skills and develops additional skills in using comparative history, historiography, and primary and secondary sources.

HIST 4180
The Italian Renaissance WE
3
* Prerequisite(s): University Advanced Standing

Examines the origins, development, and impact of Renaissance culture in Italy from 1300 to 1600. Focuses on the social and urban background that gave rise to such Renaissance achievements as humanism, modern individualism, secularism, and artistic innovation. Analyzes the legacy and influence of Italian Renaissance culture on the modern world.

HIST 420R
Issues and Topics in Global History
3
* Prerequisite(s): Instructor approval; and University Advanced Standing

Analyzes a specific topic in global history as decided by the instructor. Debates the context and legacy of the topic using primary sources in a seminar setting. Evaluates varying interpretations and methods of different historians on the topic. Culminates in a major project requiring historical research. May be repeated for a maximum of 6 credits toward graduation.

HIST 421G
The Global Cold War
3
* Prerequisite(s): University Advanced Standing

Examines the Cold War using global and interdisciplinary lenses. Explores key topics and questions about the global Cold War from multiple perspectives using sources from Latin America, Africa, Europe, and Asia alongside the U.S.S.R. and U.S. Discusses geopolitics as ideologies, interventions, decolonization, and revolution alongside themes such as resistance, gender, peace, militarism, and imperialism, diplomacy, and soft power. Concludes by looking at how historical legacies of the Cold War shape today’s world.

HIST 4250
Teaching History in the Secondary Curriculum
3
* Prerequisite(s): Admission to Professional Education Program, (EDSC 455G or instructor approval), and University Advanced Standing

For students majoring in secondary education. Examines teaching methodology as related to teaching history and learning teaching strategies to prepare students for secondary education certification. Utilizes various group projects, classroom exercises, and an actual teaching project at the end of the semester. Evaluated by participation, teacher evaluation, written evaluation, exams, personal journal, and a final teaching project.

HIST 430G
Violence and Social Conflict in Latin America
3
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing

Examines impact of violence and social conflict in Latin American society. Covers from Ancient Native American cultures to the present.

HIST 4310
Violence and War in the Ancient World WE
3
* Prerequisite(s): University Advanced Standing

Investigates violence in the Ancient Mediterranean from 2000 BCE to 700 CE. Discusses violence in many forms from domestic disputes to protracted war. Evaluates the way ancient people thought about violence and the arguments of modern historians of violence and war.

HIST 4320
History of Scientific Thought
3
* Prerequisite(s): University Advanced Standing

Examines the origins, development, and impact of Renaissance culture in Italy from 1300 to 1600. Focuses on the social and urban background that gave rise to such Renaissance achievements as humanism, modern individualism, secularism, and artistic innovation. Analyzes the legacy and influence of Italian Renaissance culture on the modern world.

HIST 4340
Violence and Social Conflict in Latin America
3
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing

Examines impact of violence and social conflict in Latin American society. Covers from Ancient Native American cultures to the present.

HIST 461G
Peoples of the Atlantic World 1450-1800
3
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing

Offers an introduction to the main themes and issues of the early Atlantic world and the field of Atlantic History, from the angle of intercultural relations and social/political productions. Examines in depth the encounters, exchanges, and clashes between Africans, Europeans, and Native Americans through the life experiences of the peoples who lived “between cultures,” such as interpreters, mariners, missionaries, creoles, etc. Encourages reflection about the modern legacies of the colonial period and issues of multiculturalism and post-colonialism.

HIST 465G
Missions and Conversion in Early North America
3
* Prerequisite(s): (HIST 2700 or HIST 3730) and (ENGL 2010 with a grade of C+ or higher, or instructor approval) and University Advanced Standing

Examines in a comparative perspective various European religious missionary enterprises in North America and their reception among Indians from the seventeenth century through the antebellum period. Surveys the origins, doctrines, methods, and changes over time of the Jesuit, Franciscan, Moravian, Puritan, and other Protestant missions, emphasizing the international and multicultural aspects of the missionary landscape in early America. Addresses the ways in which various Native American groups and individuals responded to these European missionary efforts.

HIST 466G
Legacies and Reckonings in the American West GI WE
3
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing

Examines the Cold War using global and interdisciplinary lenses. Explores key topics and questions about the global Cold War from multiple perspectives using sources from Latin America, Africa, Europe, and Asia alongside the U.S.S.R. and U.S. Discusses geopolitics as ideologies, interventions, decolonization, and revolution alongside themes such as resistance, gender, peace, militarism, and imperialism, diplomacy, and soft power. Concludes by looking at how historical legacies of the Cold War shape today’s world.

HIST 466G
Legacies and Reckonings in the American West GI WE
3
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing

Surveys key theories and issues in the American West, the diverse experiences of peoples and cultures in the West, the often contested interactions of these cultures, the cultural symbolism of the American West, human impact upon the western environment, and the role of myth in the formulation of regional identity. Emphasizes discipline-specific writing.
HIST 471R
Special Issues and Topics in American History
3
* Prerequisite(s): University Advanced Standing
Analyzes a specific topic in US history as decided by the instructor. Debates the context and legacy of the topic using primary sources in a seminar setting. Evaluates varying interpretations and methods of different historians on the topic. Culminates in a major project requiring historical research. May be repeated for a maximum of 6 credits toward graduation.

HIST 482R
Public History Internship
2 to 9
* Prerequisite(s): University Advanced Standing
Provides opportunities for internship experience in public history organizations, including, but not limited to, museums, archives, manuscript collections, federal, state, local, and private historical sites, and governmental and non-governmental history organizations. May be repeated for a maximum of 9 credits toward graduation. May be graded credit/no credit.

HIST 491R
Directed Readings
2 to 4
* Prerequisite(s): Instructor approval; University Advanced Standing
Presents readings and research on a historical topic not normally offered in the two-year cycle of the history program in close collaboration with an instructor. Evaluates varying interpretations and methods of different historians on the topic. Culminates in the production of a historiographical project. May be repeated for a maximum of 4 credits toward graduation.

HIST 4980
Senior Research Thesis Research Component WE
3
* Prerequisite(s): HIST 3010 or instructor approval; University Advanced Standing
First half of the capstone experience for Majors. Requires students to work with a faculty member in a directed and extensive research and writing project. Topics vary according to thesis director. Honors students should consult Honors Program for thesis options.

HIST 4990
Senior Research Thesis Writing Component
3
* Prerequisite(s): HIST 4980 and Senior Standing in History and University Advanced Standing
Second half of the required capstone experience for History Majors. Student continues to work on and complete the extensive research, analysis, and writing project developed in HIST 4980 under faculty direction. Honors students should consult Honors Program for thesis options.

Community Health
(HLTH)

HLTH 1055
Pilates I CoreMax Training
1
Provides a total body workout that challenges and optimizes strength, flexibility and endurance. Incorporates FlexBands, BOSU, stability balls, weighted balls, fitness circle and mat work to assist individuals in achieving optimal health and well-being. Focuses on lengthening the body, strengthening the mid-section (core & spine), and improving posture and flexibility.

HLTH 1057
Power Yoga
1
Provides a vigorous and powerful approach to many styles of Yoga, including Vinyasa, Ashtanga, Hatha among others. Incorporates flowing progressive postures, meditative awareness, and breath control.

HLTH 1100
Personal Health and Wellness TE
2
Examines the challenges to individual and community health, and encourages students to become actively engaged in preserving, protecting, and promoting health at all levels. Develops a greater appreciation for bodies and understanding of requirements to maintain or achieve good physical, mental, emotional, social, and spiritual health. Includes lecture, discussion groups, guest lecturers, media, and role-playing. Canvas Course Mats $34/Pearson applies.

HLTH 1200
First Aid
3
Provides first aid and emergency care training as well as instruction with Automated External Defibrillators. Structured to meet National Safety Council First Aid requirements with successful completers being certified in First Aid and CPR. Includes lectures, hands-on experience with mannequins, audiovisuals, discussions, and field trips. Course lab fee of $15 applies.

HLTH 1300
Medical Terminology I
2
Helps students read and understand the language of medical terminology. Stresses terminology usage and accuracy. Studies elements, abbreviations, spelling, pronunciation, and logic of medical terminology. Includes lectures and audiovisual presentations. Canvas Course Mats $86/Pearson applies.

HLTH 1405
Safety Awareness and Self Defense
1
Investigates self-awareness, self-empowerment, and self-defense. Emphasizes environmental awareness and strategies in avoiding dangerous situations. Teaches self-defense techniques that can be used in a crisis situation.

HLTH 1500
Mindfulness/Meditation/Breathwork
1
Examines mindfulness, meditation and breathwork using evidence-based materials and programs. Meets students' needs by teaching mindfulness, meditation, and breathwork to help students meet lifestyle changes. Teaches skills that help calm and focus the mind, including breathing exercises, guided imagery, and body scanning.

HLTH 2000
Body Image and Weight Management
3
Provides an overview of body image and weight management issues from historical and societial perspectives. Combines psychology and public health concepts to enhance understanding of the unique relationship individuals have with their bodies throughout the life cycle. Addresses popular weight management strategies from a public health perspective. Focuses on weight management from an anti-diet, health-at-every-size approach.

HLTH 2050
Public Mental Health
3
Explores issues of mental health from a public health perspective. Examines the nature and history of mental illness in the United States, ethical and legal issues influencing the mental health system, and mental health across the lifespan. Examines societal factors such as poverty, discrimination, and homelessness and their effect on mental health. Applies public health theories to alleviate the mental health burden.
HLTH 2200  
Introduction to Health Professions  
2  
For students planning to major in a health related field. Examines the historical and continuing evolution of health care. Explores work description, environment, employment opportunities, education, expectations, legal requirements, and expected earnings of each covered health profession. Focuses on, but not limited to medicine, dentistry, nursing, community health, optometry, respiratory care, dental hygiene, physical therapy, and social work.

HLTH 2400  
Concepts of Stress Management  
3  
For those interested in developing skills and techniques necessary to work with clients in stress reduction programs. Includes identifying, managing, and eliminating stress in individuals, families, and communities. Examines effects of stress on the immune, endocrine, and nervous systems and the relationship to disease. Teaches stress reduction application and methods in wellness and health care settings. Canvas Course Mats $43/Cengage applies.

HLTH 2450  
Health Coaching  
3  
* Prerequisite(s) or Corequisite(s): HLTH 1100  
Provides an evidence-based introduction to the role of a health coach as an educator and motivator for change. Connects theory to behavior change and understanding the three main core coaching skills to help necessitate change in clients. Examines the communication skills necessary for health coaching and motivational interviewing.

HLTH 2510  
Media and Computer Applications in Health  
3  
Introduces students to computer-based methods for accessing, analyzing, and communicating health-related information. Explores the relationship between mass media and health promotion and the key elements in the development of successful health communication campaigns.

HLTH 2550  
Health Coaching II  
3  
* Prerequisite(s): HLTH 2450  
Applies evidence-based learning as a continuation of Health Coaching I. Explores different communication styles and how they are used in motivational coaching. Focuses on the utilization of appropriate assessment tools, SMART goals, readiness to change models, positive psychology, generative moments, and how to create a coaching session. Practices the use of health coaching as a guide to support and motivate clients to make lasting lifestyle changes.

HLTH 2600  
Drugs Behavior and Society  
3  

HLTH 2750  
Supervised Coaching  
1  
* Prerequisite(s): HLTH 2550  
Provides health coaching sessions with clients in a monitored teaching environment. Critically evaluates experiences and facilitates change, in a low stakes environment. May be Graded Credit/No Credit.

HLTH 2800 (Cross-listed with: PSY 2800)  
Human Sexuality  
3  
* Prerequisite(s): ENGL 1010 or ENGH 1005  
Interdisciplinary course in human sexuality, exploring topics in biology, health, psychology, and sociology. Introduces basic concepts of human sexuality, including anatomy, reproduction, and sexual response across the life-cycle. Studies gender roles, sexual orientation, dysfunction, and sexually transmitted disease. Examines sexual behavior from the perspective of ethics, religion, the law, and education. Students assess their sexual attitudes and should be able to make responsible sexuality decisions.

HLTH 282R  
Coaching Internship  
1 to 6  
* Prerequisite(s): HLTH 2750  
Provides practical application of the skills learned in the health coaching courses, by allowing students to meet one-on one with clients. Helps students coach others to create lifestyle change programs. May be repeated for a maximum of 6 credits toward graduation. May be graded credit/no credit.

HLTH 2900  
Health Education for Elementary Teachers  
2  
For Elementary Education majors. Emphasizes the role of the teacher as a health educator and team member in providing a healthy school environment. Studies the basic Utah health core curriculum. Develops learning activities applicable to the health needs of the elementary school student. Canvas Course Mats of $66/ McGraw applies.

HLTH 3000  
Health Concepts of Death and Dying  
3  
* Prerequisite(s): University Advanced Standing  
Examines information and data pertaining to death in the United States. Discusses historical and cultural perspectives of death, causes of death, definitions of death, stages of dying, bereavement, the will to live, legal and ethical issues, euthanasia, and suicide. Focuses on attitudes and values of Americans concerning death. Studies ways to work with and relate to dying individuals and their families. Will also be offered summer of odd years.

HLTH 3160  
Healthcare Law  
3  
* Prerequisite(s): University Advanced Standing  
Explores impact of laws, regulations, social policies on management and delivery of healthcare. Includes provider liability, managed healthcare contracts, HIV-related concerns, assisted suicide, and other issues.

HLTH 3200  
Principles of Community Health  
3  
* Prerequisite(s): University Advanced Standing  

HLTH 3220  
Foundations of Health Education  
3  
* Prerequisite(s): University Advanced Standing and matriculation into BS Community Health or BS School Health Education  
For students interested in a community health career. Examines the history and role of health education in today's society. Covers the philosophical principles and models utilized in the delivery of health education. Analyzes types of health information available in health journals and on the internet. Introduces the major health associations and describes the competencies necessary for certification as a Health Education Specialist.
HLTH 3230
Professional Development
3
* Prerequisite(s): Matriculation into BS Public Health or BS School Health Education or Healthcare Administration and University Advanced Standing
* Prerequisite(s) or Corequisite(s): HLTH 3200
Provides students with preparation for an internship, job, or graduate school in public health, healthcare administration, or school health.

HLTH 3240
Women's Health Issues
3
* Prerequisite(s): HLTH 1100 or EXSC 1097 and University Advanced Standing
For students in various health care professions. Reviews important dimensions of a woman's health and examines the contributing epidemiological, historical, psychosocial, cultural/ethnic, legal, political, and economic influences. Focuses on women throughout their lifespan and incorporates the many factors that affect health and well-being. Stresses prevention, health promotion, research, clinical intervention, and public policy that form the interlocking basis when considering the different diseases, disorders, and conditions that afflict women. Provides a practical approach to examining and understanding health issues that are unique to women—all ages, races, socioeconomic strata, and cultures. Will also be offered summers of even years.

HLTH 3260
Theory-Based Approaches to Modifying Health Behavior
3
* Prerequisite(s): HLTH 3200, University Advanced Standing, and matriculation into BS Community Health, BS School Health Education, BS Nursing, or BS Dental Hygiene
For students interested in community and school health programs. Investigates holistic health and behavioral changes that can positively influence total human well-being. Discusses factors that impact personal health behavior. Focuses on behavioral change models and theories including planning, implementation and evaluation. Examines health counseling approaches, group process, and strategies related to specific health problems.

HLTH 3300
Health Promotion for Older Adults
3
* Prerequisite(s): University Advanced Standing
For students in health and behavioral sciences and other related fields who wish to work in gerontological settings. Examines health issues and problems of older adults. Addresses topics affecting older adults including: the aging process, chronic and infectious diseases, health care resources, and health promotion. Covers medication issues, long-term care, death and dying, and other related topics.

HLTH 3400
Human Diseases
3
* Prerequisite(s): ZOOL 1090 and University Advanced Standing
For students interested in a Community Health option within the Integrated Studies Degree. Also for students interested or working in health care fields such as nursing, dental hygiene, etc. Introduces the study of human disease including general principles of disease and major diseases of body systems and organs. Applies genetic, behavioral and environmental issues to the study of human diseases.

HLTH 3450
Public Health and the Environment
3
* Prerequisite(s): HLTH 3200, University Advanced Standing
Examines the relationship of people to their environment as well as public health environmental issues. Develops an understanding of the causes of those issues, and possible future approaches to control major environmental public health problems. Includes environmental epidemiology, public health policy and regulation, zoonotic and vector-borne diseases, toxic materials, radiation, water quality, air quality, food safety, solid and liquid wastes, occupational health, injuries, and emerging global environmental public health problems.

HLTH 3500
International Health
3
* Prerequisite(s): University Advanced Standing
Provides knowledge regarding the various health issues that affect people around the world. Focuses on the role of culture, ethnicity, country of origin, politics, and gender on health. Examines the importance of cultural sensitivity and competence when attempting to eradicate public health concerns. Will also be offered summer of even years.

HLTH 350G
International Health
3
* Prerequisite(s): University Advanced Standing
Provides knowledge regarding the various health issues that affect people around the world. Focuses on the role of culture, ethnicity, country of origin, politics, and gender on health. Examines the importance of cultural sensitivity and competence when attempting to eradicate public health concerns. Will also be offered summer of even years.

HLTH 3600
Social Marketing
3
* Prerequisite(s): University Advanced Standing
Identifies how to promote social changes to the consumer. Teaches packaging, positioning and framing of programs to appeal to more salient, powerful, and influential core values: freedom, independence, autonomy, control, fairness, democracy, and free enterprise. Discusses marketing principles, planning, implementing, and evaluation of public health programs, strategic planning, social change theory, and case studies.

HLTH 3700
Grant Writing WE
3
* Prerequisite(s): University Advanced Standing and matriculation into BS Public Health or BS School Health Education
Provides students with the needed knowledge and skills for public health grant writing. Teaches the major elements of grant writing including the identification of grant sources, writing grant proposals, and preparation of budgets and timelines.

HLTH 3750
Biostatistics for Public Health
3
* Prerequisite(s): Matriculation into Community Health BS, School Health BS, or Nursing BS program; University Advanced Standing; and completion of MATH 1050 or 1055 or STAT 1040 or 1045
Introduces use of statistics for research purposes in the fields of public and community health. Teaches descriptive and inferential statistics. Includes central tendency, variability, correlation and regression, probability, and various inferential techniques such as t-test for independent and dependent samples, one-way and two-way analysis of variance, post-hoc tests, and non-parametric statistical tests.

HLTH 3800
Epidemiology
3
* Prerequisite(s): HLTH 3400, University Advanced Standing, and matriculation into BS Community Health or BS School Health Education
Introduces epidemiologic principles and methods. Examines the historical and theoretical bases of epidemiology; statistical methods; distribution of disease over person, place, and time; research methods utilized in epidemiology; and the application of epidemiology to the prevention of disease and the promotion of health.
Course Descriptions

HLTH 4100 Health Education Curriculum for Secondary Teachers
3 * Prerequisite(s): University Advanced Standing and matriculation into the BS School Health program

For secondary education majors. Emphasizes the role of the teacher as a health educator and team member in providing a healthy school environment. Examines comprehensive school health education and studies the basic Utah health core curriculum for secondary education. Develops learning activities applicable to the health needs of secondary education students. Course fee of $10 for materials applies.

HLTH 4140 Assessment and Program Development WE
3 * Prerequisite(s): HLTH 3200, HLTH 3220, University Advanced Standing, and matriculation into the BS Public Health

Intended for Public Health majors. Covers building a rationale, gaining support of stakeholders, selecting an appropriate model or theory, conducting a needs assessment, developing goals and objectives, and determining appropriate public health education strategies. Helps students develop the skills to successfully begin the program planning process.

HLTH 4160 Program Implementation and Evaluation WE
3 * Prerequisite(s): HLTH 4140 and University Advanced Standing

Intended for Public Health majors. Builds upon HLTH 4140 and develops the knowledge, skills, and abilities to conduct health program implementation and evaluation. Includes a systematic approach to the implementation and evaluation of health education programs.

HLTH 4200 Health Education Teaching Methods WE
3 * Prerequisite(s): HLTH 4100, University Advanced Standing and matriculation into BS School Health

For secondary education school health majors. Examines teaching methods, materials and techniques. Studies secondary education health curriculum, program planning, development, implementation, and evaluation. Helps students develop lesson plans and present them in secondary education settings.

HLTH 4250 Health Organization and Policy WE
3 * Prerequisite(s): University Advanced Standing

Focuses on U.S. health policy and policy analysis. Describes the basic machinery of policymaking and legal processes that underpin the individual health care and public health systems. Analyzes the fundamental problems and contemporary issues in health policy and teaches students how to properly develop and analyze health policy.

HLTH 4300 Health Ethics
3 * Prerequisite(s): Matriculation into BS Public Health, or Healthcare Administration, or Dental Hygiene, or Nursing and University Advanced Standing

For students majoring in Public Health. Also for students interested or working in healthcare fields such as healthcare administration, nursing, dental hygiene, etc. Explores and interprets ethical codes of conduct as set forth by health professions and/or organizations. Emphasis will be given to the Code of Ethics for the Health Care profession. Examines various healthcare issues such as: healthcare allocation, healthcare costs, death and dying issues, patient rights, informed consent, confidentiality etc. Investigates conflicts arising from existing and evolving codes of conduct using case studies as an arena for discussion.

HLTH 440G Health and Diversity
3 * Prerequisite(s): University Advanced Standing

Provides students with a specific set of skills and knowledge in cultural competence. Focuses on understanding the public health system, identifying one's own cultural biases, understanding biases regarding one's own cultural identity, and developing culturally competent approaches and tools. Enables students to be more effective public health professionals whether they work with diverse populations within the United States or in international settings.

HLTH 4500 Healthcare Administration
3 * Prerequisite(s): University Advanced Standing

Gives individuals a working and practical look at numerous aspects of healthcare administration and leadership. Includes definitions of leadership, qualities of an effective leader, sources of power, time management, the planning and decision making process, three core functions of public health, social marketing strategies, as well as other timely topics related to healthcare practice and administration.

HLTH 4560 Introduction to Healthcare Systems
3 * Prerequisite(s): University Advanced Standing

Examines the history, structure, operation, function, major components, and direction of healthcare systems. Highlights national systems and explores how systems across the U.S. are addressing healthcare issues. Assesses operational components such as physician issues, billing, and common terminology.

HLTH 4600 Research Methods for Public Health WE
3 * Prerequisite(s): (Matriculation into BS Public Health or BS School Health Education or BS Healthcare Administration or BS Dental Hygiene) or instructor approval; University Advanced Standing

Introduces research techniques, methodology, and designs. Examines the planning, organizing, and conducting of research studies for solving problems unique to community health. Includes literature review and research article critiques.

HLTH 4640 Population Health and Strategic Management
3 * Prerequisite(s): University Advanced Standing

Examines the determinants of population health, outcomes in a community, payment models, and strategies to improve management of healthcare resources. Highlights the importance of quality improvement, health insurance (commercial and government), concepts of risk in insurance, utilization management, patient engagement, accountable care organizations, and social determinants of health. Uses basic data analysis to apply course concepts.

HLTH 4720 CHES Preparation
3 * Prerequisite(s): Department approval; University Advanced Standing; Senior standing

Provides an overview of the health education areas of responsibilities in preparation for the Certified Health Education Specialist national exam. For students in their last semester at UVU, planning to register and take the CHES exam in October or April.
HLTH 4780
Strategic Planning and Operations Management
3
* Prerequisite(s): University Advanced Standing
Introduces strategic planning and operations management in relation to current and future topics and trends in healthcare. Examines historical and current quality improvement models and applies them to current industry topics. Discusses the relationship between industry and healthcare.

HLTH 482R
Health Internship
1 to 8
* Prerequisite(s): HLTH 3230, and (matriculation into BS Public Health or BS Healthcare Administration) or (Admission into CP Healthcare Information Technology or CP Interdisciplinary Gerontology), and University Advanced Standing
Provides field experience and enhanced knowledge in health services and education, under the preceptorship of an individual qualified by education and/or experience. May be repeated for a maximum of 6 credits toward graduation. May be graded credit/no credit.

HLTH 4950
Senior Capstone
1
* Prerequisite(s): University Advanced Standing, Senior Standing, Matriculation in BS Public Health
Assesses both content knowledge and skills developed during the course of the Public Health program. Provides students an opportunity to reflect on their learning and demonstrate the program outcomes through the development and presentation of a professional electronic portfolio, and the completion of a cumulative post-test. For seniors in their last semester.

HLTH 6200
Issues in Public Health
3
* Prerequisite(s): Acceptance into the Masters of Public Services Program
Examines public health principles and concepts by focusing on the five core public health knowledge areas and the ten essential public health services. Explores public health infrastructure, surveillance, social determinants of health, policy, and emerging issues. Provides a broad framework for understanding public health’s role in community health, prevention, and medicine.

Hospitality Management (HM)

HM 1010
Introduction to Hospitality Industry
3
* Prerequisite(s): MAT 1030, MAT 1035, STAT 1040, STAT 1045, MATH 1050, MATH 1055, or MATH 1090, or higher
Designed for hospitality management majors and as elective credit for other business majors. Provides a basic understanding of the lodging and food service industry by tracing the industry’s growth and development. Analyzes management’s functions and responsibilities in such areas as administration, organization, communications, accounting, marketing, and human relations. Examines industry opportunities and future trends. Includes lecture, field trips, guest speakers, film, and tapes. Completers should have a knowledge of career opportunities and basic hospitality management principles. Lab access fee of $25 for computers applies.

HM 1180
Food and Beverage Management
3
Designed for hospitality management majors and as elective credit for other business majors. Studies management principles of menu planning, purchasing, storage, food and beverage production, service, and sanitation. Includes lecture, case studies, guest speakers, and analysis as a platform to practice data-gathering industry scenarios and hands-on exercises and project. Completers should be competent to be a beginning front desk clerk. Lab access fee of $25 for computers applies.

HM 2500
Statistics for the Hospitality Industry
3
* Prerequisite(s): MAT 1030, MAT 1035, STAT 1040, STAT 1045, MATH 1050, MATH 1055, or MATH 1090, or higher
Provides a step-by-step approach to gathering, analyzing, and using numeric market, operating, and financial data in the hospitality management industry. Hospitality industry scenarios and hands-on exercises and labs are used to build student skills in data analysis as a platform to practice data-gathering and analysis for projects in business planning, market research, revenue management, or designing customer-employee satisfaction surveys. Canvas Core Cours $78/Wiley applies

HM 281R
Cooperative Work Experience
2 to 9
* Prerequisite(s): Approval of School of Business Career and Corporate Manager
Provides opportunities to apply classroom theory on the job. Students work as paid employees in a job that relates to their careers while enrolled at the College. Credit is determined by the number of hours a student works during the semester. Completers meet individually set goals. A total of six credits may be applied toward graduation with a diploma or AAS degree and three credits toward Certificate programs. May be graded credit/no credit.
Course Descriptions

HM 2890
Industrial Work Experience
1 to 8
Designed for hospitality management majors as elective credit. Provides practical work experience in an actual restaurant, applying management theory in carrying out duties assigned by the manager/owner.

HM 296R
Hospitality Management Seminar
1 to 3
* Prerequisite(s): Instructor/Department Chair Approval
Provides short courses, workshops, and special programs in hospitality management or culinary arts topics. Repeatable for up to three credits.

HM 297R
Independent Study
1 to 3
* Prerequisite(s): Department Chair Approval
Offers independent study as directed in reading, in individual projects, etc., in the area of hospitality management or culinary arts at the discretion and approval of the department chair. May be repeated for up to 6 credits toward graduation.

HM 3000
Hospitality Industry Foundations
3
* Prerequisite(s): University Advanced Standing
Focuses on lodging, food, and event planning operations in the hospitality industry. Identifies career tracks offered in the hospitality industry and assists students to make academic and career decisions. Delivers content through lectures, guest speakers, site visits (both class and individual), and group projects to facilitate student learning.

HM 3020
Hospitality Managerial Accounting I
3
* Prerequisite(s): ACC 2110 or ACC 2110; University Advanced Standing
Presents managerial accounting concepts and explains how these concepts apply to specific operations within the hospitality industry. Utilizes lectures, demonstrations, and case studies in class. Lab access fee of $25 for computers applies.

HM 3030
Hospitality Managerial Accounting II
3
* Prerequisite(s): ACC 2110, Matriculation into the Woodbury School of Business and University Advanced Standing
* Prerequisite(s) or Corequisite(s): HM 3020
Is the second in a two part series designed to integrate principles of operations and managerial accounting as they relate to the hospitality industry. Emphasizes developing competencies in analyzing real world hospitality industry scenarios using spreadsheet software. Includes: cost volume profit analysis and applications, forecasting, production controls, budget creation and uses, flexible budgets, depreciation, taxation, time value of money basics, capital budgeting, evaluating and financing investments, and cost benefit analysis.

HM 3050
Country Club Management
3
* Prerequisite(s): University Advanced Standing
Provides a basic understanding of country club management with golf operations. Analyzes management's functions and responsibilities in such areas as administration, organization, communications, accounting, marketing, and human relations. Examines industry opportunities and future trends. Includes lectures, field trips, guest speakers, films, and tapes. Completers should have knowledge of career opportunities and basic hospitality management principles.

HM 3100
Hospitality Law
3
* Prerequisite(s): University Advanced Standing
Teaches rights and responsibilities that the law grants to or imposes upon a hotelkeeper, and illustrates the possible consequences of failure to satisfy legal obligations. Explains the issues surrounding the need for individualized security programs: examines a wide variety of security and safety equipment and procedures, and discusses guests safety. Presents a systematic approach to the legal issues affecting human resource management. Includes lecture, case studies, videos, and site visits. May be delivered online and/or hybrid. Lab access fee of $25 for computers applies.

HM 3150
Hospitality Finance
3
* Prerequisite(s): HM 3030 and University Advanced Standing
Presents the general conceptual framework for understanding and applying techniques of value creation for a hospitality firm. Includes risk and value, timing and value of cash flows, valuation and required rates of return, capital expenditure analysis, project valuation criteria, capital structure management, and financial markets. Introduces financial topics and practices application techniques. Includes lecture, demonstration, case studies, and guest speakers. May be delivered online. Lab access fee of $25 for computers applies.

HM 3200
Global Tourism
3
* Prerequisite(s): (MKTG 220G or ENGL 2010) and University Advanced Standing
Explores global tourism in a variety of sociocultural environments. Teaches world travel destinations and helps to develop a deeper understanding and cultural values and traditions that exist outside the student's own culture. Examines global tourism destinations in the context of environment, culture, economy, and society. Explores pull factors for prospective tourists to specific destinations. Focuses on the nature of the world's largest industry (i.e. tourism industry) and its multiplier-effect on society and national economies. Enhances engaged learning experiences through the Global Tourism Project and facilitates students' preparation to participate as active, informed, and respectful citizens.

HM 3210
Event Venue and Convention Management
3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Analyzes and explores the conventions and meetings market, event venue management, and the corresponding relationship with convention and visitors bureaus. Covers various procedures in site selection, site layout and logistics, operations, negotiations and contracts, food and beverage service, and convention sales.
HM 3390  
Hotel Operations II  
3  
* Prerequisite(s): HM 1130 and University Advanced Standing

Overviews fundamentals of housekeeping management. Describes the management functions, tools, and practices required in today's lodging and institutional housekeeping departments. Provides students with information they need to successfully manage a physical plant and work effectively with engineering and maintenance. Includes lecture, role play, site visits, film, and tapes. Completes should have a basic understanding of housekeeping and facility management. Lab access fee of $25 for computers applies. Canvas Course Mats $54/Wiley applies.

HM 3400  
Hotel Industry Analytics  
2  
* Prerequisite(s): University Advanced Standing

Familiarizes students with key hotel analytics, such as, foundational hotel industry dynamics, industry standard key performance indicators (KPIs) and their calculation, industry standard property level reporting, and various other industry standard performance reports. Prepares students to earn the Certification in Hotel Industry Analytics (CHIA).

HM 3640  
Food and Beverage Controls  
3  
* Prerequisite(s): ACC 2010 and University Advanced Standing

Designed for hospitality management majors and as elective credit for other business majors. Covers the principles and procedures involved in an effective food and beverage control system, including standards determination, the operating budget, income and cost control, menu pricing, and computer applications. Includes lecture and computer simulation. Completes should have a basic understanding of control functions within a hospitality unit and be familiar with computer control systems. Lab access fee of $25 for computers applies. Canvas Course Mats $54/Wiley applies.

HM 3710  
Marketing of Hospitality Services  
3  
* Prerequisite(s): MKTG 220G and University Advanced Standing

Provides basic knowledge and practical experience which will enable students to develop strategic marketing plans for hotel/motel properties. Focuses on practical sales techniques, proven approaches to selling to targeted markets, and advertising's role in sales. Includes lecture, role play, case studies, simulations and projects. Lab access fee of $25 for computers applies. Canvas Course Mats $54/Wiley applies.

HM 3800  
Vacation Rental Management  
3  
* Prerequisite(s): University Advanced Standing

Introduces management practices used in the short term rental market of the lodging industry. Provides an overview of the industry including regulations and accounting, marketing and reservations, guest and neighbor relations, maintenance and housekeeping, design and décor, security and guest safety, tech devices and innovations, and opportunities for entrepreneurial entry.

HM 4150  
Hospitality Revenue Management  
3  
* Prerequisite(s): HM 1130, and University Advanced Standing  
* Prerequisite(s) or Corequisite(s): HM 3710

Designed for Hospitality Management majors. Addresses the emerging revenue management process and the keys to effective revenue management planning. Explores how to develop, implement, and evaluate strategic management processes. May be delivered hybrid and/or online.

HM 4200  
Event Planning  
3  
* Prerequisite(s): HM 3210 and University Advanced Standing

Introduces the event industry, its scope and responsibilities, and the multidimensional nature of an event experience. Develops needs assessment, feasibility studies, and project management techniques to help students understand events in greater detail. Explores the interaction between attendee and the environment that enhances the event experience. Provides experience managing food and beverage services, technical services, ancillary activities, and marketing for events.

HM 4250  
Advanced Event Production  
3  
* Prerequisite(s): HM 4200 and Advanced University Standing

Explores advanced techniques and procedures to effectively execute an event production. Includes creating feasible site plans, lighting and sound designs, table-top and stage décor, menu and food set-up designs, and event marketing plans. Focuses on how to successfully manage an event from inception to implementation to evaluation. Provides hands-on experience in event production and the creation of a professional event portfolio.

HM 4300  
Food and Beverage Consulting  
3  
* Prerequisite(s): HM 1180, HM 3030, and University Advanced Standing

Provides a consulting experience with a local company. Promotes application of principles taught throughout the hospitality management program with a specific focus on effectively managing food and beverage functions. Tailors projects to students completing the food and beverage track. Recommends but does not require at least a year of experience working in the foodservice industry. Uses student-led consulting teams to complete real-world projects.

HM 4400  
Advanced Hotel and Tourism Analytics  
3  
* Prerequisite(s): HM 3400 and University Advanced Standing  
* Prerequisite(s) or Corequisite(s): HM 3150

Familiarizes students with key hotel analytics, such as, foundational hotel industry dynamics, industry standard key performance indicators (KPIs) and their calculation, industry standard property level reporting, and various other industry standard performance reports. Includes project and group work. Develops augmented capacity for analyzing and interpreting current industry data, conducting market research, identifying and forecasting trends, and effectively communicating findings effectively through public speaking. Includes opportunities to interview industry consultants, developers, and professionals to gain additional insights into the markets they are studying.

HM 4550  
Hospitality Strategic Management WE  
3  
* Prerequisite(s): HM 3030 and University Advanced Standing

Examines delivery of the organization's product or service. Includes investigative and production planning, scheduling of operations, allocation of resources, manpower and equipment decisions, inventory control, production planning, and quality. Lab access fee of $25 for computers applies.

HM 470G  
International Human Resource Management  
3  
* Prerequisite(s): University Advanced Standing

Introduces the field of international human resource management (IHRM). Provides an understanding of global influences on and practices in human resource management in international organizations. Includes globalization, internationalization of HR, cultural influences on HR, global employment law, global talent management, global training, global compensation, international performance evaluations, global human relations, and global employee engagement.
Course Descriptions

HM 481R
Internship
1 to 9
* Prerequisite(s): Approval of WSB Internship Coordinator and University Advanced Standing

For upper-division students working toward a Bachelor of Science Degree in Hospitality Management or Event Management. Provides a transition from school to work where learned theory is applied to actual practice through meaningful on-the-job experience. May be repeated for a maximum of 9 credits. May be graded credit/no-credit.

HM 496R
Hospitality Management Seminar
1 to 3
* Prerequisite(s): Instructor/Department Chair Approval and University Advanced Standing

Provides short courses, workshops, and special programs in hospitality management. Repeatable for up to 3 credits.

HM 497R
Independent Study
1 to 3
* Prerequisite(s): Department Chair Approval and University Advanced Standing

For bachelor's degree students and other interested persons. Offers independent study as directed in reading, in individual projects, etc., in the area of hospitality management. Repeatable for up to 3 credits.

Honors (HONR)

HONR 100R
Honors Colloquium
1
* Prerequisite(s): Current enrollment in Honors program

Limited to students currently receiving the Honors Housing Scholarship. Builds collegiate and adult life skills through cohort-based collaborative learning. Develops reflective and communication abilities. May include readings, guest lectures, community or campus service and leadership projects, outdoor excursions, and attendance at fine arts or sporting events. May be repeated for a maximum 4 credits toward graduation.

HONR 150R
Honors Housing Colloquium
1
* Prerequisite(s): Current enrollment in Honors program and receipt of Honors Housing Scholarship.

Limited to students currently receiving the Honors Housing Scholarship. Builds collegiate and adult life skills through cohort-based collaborative learning. Develops reflective and communication abilities. May include readings, guest lectures, community or campus service and leadership projects, outdoor excursions, and attendance at fine arts or sporting events. May be repeated for a maximum 4 credits toward graduation.

HONR 2000
Ancient Legacies
3
* Prerequisite(s): Current enrollment in Utah Valley University Honors program or permission of the instructor

Examines Ancient, Medieval, and early Renaissance thought through primary texts composed before 1500 C.E. Emphasizes close study of primary texts drawn from disciplines including, but not limited to literature, history, philosophy, religion, music, and the sciences. Includes at least one text written during each of these periods, and at least one non-Western text. Develops strong critical thinking, collaboration, writing, and rhetorical skills.

HONR 2100
Modern Legacies
3
* Prerequisite(s): Current enrollment in Honors program or permission of the instructor

Examines Modern and Contemporary thought through primary texts composed after 1500 C.E. Focus of the class determined by instructor, but must include at least one text that adds diversity (for instance, in ethnicity, class, or gender). Emphasizes close study of primary texts drawn from disciplines including, but not limited to, astronomy, physics, biology, literature, history, philosophy, and religion. Develops strong critical thinking, writing, and rhetorical skills.

HONR 300R
Honors Interdisciplinary Seminar
1 to 4
* Prerequisite(s): Current enrollment in UVU Honors Program or instructor approval and University Advanced Standing

Topics may be drawn from any academic discipline including but not limited to business, technology and computing, education, fine and performing arts, physical and biological sciences, health science, humanities, and social sciences. Specific content determined by faculty. Consists of rigorous analysis and synthesis of innovative, current, or special topics. May include lab or performance requirement. May be repeated for a maximum of 12 credits toward graduation.

HONR 400R
Honors Capstone
1
* Prerequisite(s): Senior status or permission of Honors Dean and University Advanced Standing

* Corequisite(s): Enrollment in Honors Program and a GPA of at least 3.20

Prepares students to complete an Honors Thesis or Honors Project (HONR 498R or HONR 499R). Initiates the research or design for an Honors Thesis or Honors Project. Includes drafting and completing a proposal, performing background design or research, and assembling a committee of at least two faculty or community mentors. May include completion of an Institutional Review Board application for research involving human subjects. Consists of rigorous analysis and synthesis of current topics in the student’s discipline. May be repeated for a maximum of 2 credits toward graduation.

HONR 498R
Honors Thesis
1
* Prerequisite(s): HONR 400R (Senior status or permission of Honors Director and University Advanced Standing)

* Corequisite(s): Enrollment in Honors Program

For students completing a baccalaureate degree and the Honors Program. Provides an opportunity for seniors in the Program to research and write on a topic related to their major, supervised by a faculty mentor. Includes independent research as necessary. Culminates in the preparation of a written paper and oral presentation describing the results of the research project. Honors Project HONR 499R may be substituted. May be repeated for a maximum of 6 credits toward graduation. Course fee of $10 for binding applies.
HONR 499R
Honors Project 3
* Prerequisite(s): HONR 400R and (Senior status or permission of Honors Director) and University Advanced Standing
* Corequisite(s): Enrollment in Honors Program
For students completing a baccalaureate degree and the Honors Program. Provides an opportunity for seniors in the Program to research, design, carry out, and report results of an project related to their major, supervised by a faculty mentor. Includes independent research and creative endeavor as necessary. Culminates in the public presentation in a seminar, colloquium, recital, show, portfolio, or other appropriate method in the discipline, and the preparation of a written section evaluating or reflecting on the project's results. May be taken as an extension of research pursued in Honors Thesis 498R; may be taken as a substitute for Honors Thesis 498R. If a student's major department requires a comparable course (with, for instance, substantial written component), that course may be substituted, with permission of the Honors Director. May be repeated for a maximum of 6 credits towards graduation. Course fee of $10 for binding applies.

Human Resource Management (HR)

HR 3430
Introduction to Human Resource Management 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Covers labor and management relations, legal issues, job analysis and design, recruiting and selecting, job placement and orientation, training, career planning, EEO, performance appraisal, and employee benefits. Presents tools for the implementation of a human resource management program. Includes class discussions, case studies, videos, oral presentations, written assignments, group projects, and guest speakers. May be delivered online and/or hybrid. Lab access fee of $25 for computers applies.

HR 3530
Employment and Labor Law 3
* Prerequisite(s): University Advanced Standing
Covers employment and labor law, cases, and policy. Includes employment discrimination along with labor relations statutes exploring the link between employment discrimination and traditional labor relations law. Presents tools necessary to formulate and write policy for profit and non-profit organizations. Includes lecture, class discussions, case studies, a service learning project, and guest speakers. Lab access fee of $25 for computers applies.

HR 3550
Organization Development 3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing; HR 3430 highly recommended
Studies the process of ensuring skills, knowledge, abilities, and performance of the workforce meet current and future individual, team, and organizational needs. Includes the development, implementation, evaluation activities, interventions, and programs that focus on customized organization development (change), performance management, training and development, career development, and other unique employee or employee group needs.

HR 3570
Training and Development 3
* Prerequisite(s): University Advanced Standing; HR 3430 recommended
Studies current models, methods, and skills for training and development designed to improve individual, group, and organizational performance. Examines the organizational role of the training specialist, identifying training needs, maximizing the trainee's learning, evaluating training programs, on-site training methods, off-site training methods, developing and training leaders, management and executive development, and societal concerns. Includes teaching techniques such as lecture, class discussions, small group activities or projects, oral presentations, written assignments, guest speaker, and scholarly dialogue. Includes a semester-long training and development academic service-learning project.

HR 4000
Total Rewards 3
* Prerequisite(s): HR 3430 and University Advanced Standing
Studies total reward systems in private and public organizations, which includes examining the systems' wage, salary, and benefits elements. Provides a comprehensive overview of total reward strategies in organizations, discuss relevant compensation models, and review various benefits influences, including laws and regulations. Explores the relationships between employee performance the different intrinsic and extrinsic rewards in total reward systems. Lab access fee of $25 for computers applies.

HR 4050
Human Resource Information Systems 3
* Prerequisite(s): HR 3430 and University Advanced Standing
Examines HR information system adoption, implementation, and the assessment and building of management support to achieve HR strategic objectives.

HR 4070
Total Compensation II--Benefits 3
* Prerequisite(s): HR 3430 and University Advanced Standing
Identifies a framework for implementing benefits systems to attract and retain a high performance workforce in a global environment; provides a comprehensive overview of benefits management strategies in organizations; discusses relevant models of compensation; and reviews various benefits influences, including laws and regulations.

HR 4080
HR Analytics 3
* Prerequisite(s): MGMT 2400, HR 3430, and University Advanced Standing
Explores key metrics, analysis, interpretation and communication tools necessary in developing comprehensive human capital strategies. Enables students to identify, analyze and interpret data to make human resource recommendations for individuals and organizations. Includes exploration of data analysis and presentation skills for human capital research and decision-making for planning, employee selection, compensation, employee survey data, organizational effectiveness and utilization analysis.

HR 4610
Talent Acquisition and Performance Management 3
* Prerequisite(s): HR 3430 and University Advanced Standing
Addresses the key HR functions of planning, staffing, and maintaining a quality workforce. Includes identifying critical specifications for filling positions, recruiting a pool of talent, developing selection methods, and creating desirable person/job matches. Teaches how to evaluate and manage employee performance once individuals enter the organization. Lab access fee of $25 for computers applies.
HR 470G
International Human Resource Management
3
* Prerequisite(s): University Advanced Standing

Introduces the field of international human resource management (IHRM). Provides an understanding of global influences on and practices in human resource management in international organizations. Includes globalization, internationalization of HR, cultural influences on HR, global employment law, global talent management, global training, global compensation, international performance evaluations, global human relations, and global employee engagement.

HR 4800
Strategic Human Resource Management
3
* Prerequisite(s): HR 3430, HR 4050, HR 4060, Matriculation into the Woodbury School of Business, and University Advanced Standing

Facilitates students' understanding of the total alignment of human resource management (HRM) and business strategies. Provides an overview of the role of HRM as a capstone course. Considers the overall design of the HRM infrastructure to enable optimal employee performance relative to the strategic goals of the organization, to achieve competitive advantages. Examines the techniques, policies, processes, strategies, and practices used by companies and/or managers to effectively and efficiently utilize human resources. Teaches theories and practices in multiple HRM areas, including staffing, performance evaluation, work and job design, training, total compensation, the legal environment, labor relations, and megatrends in the external labor market. Provides extensive training to prepare for the aPHR (Associate Professional of Human Resources) exam as a professional certification from the Human Resource Certification Institute (HRCI).

HR 495R
Advanced Topics in Strategic Human Resource Management
1 to 3
* Prerequisite(s): Department chair approval and University Advanced Standing

Provides exposure to emerging current interests in strategic human resource management topics. Topics vary each semester. May be repeated for a maximum of 6 credits toward graduation.

HUM 1010
HH
Humanities Through the Arts
3

Studies the media and compositional elements of the various art forms (literature, music, visual arts, theater, film, dance, and architecture), for greater understanding and enjoyment. Teaches how to interpret artistic meaning by analyzing artworks formally as well as in their historical contexts, such as the predominant subject matters and styles of their period. Encourages students to integrate the arts into their daily lives habitually, so that they become lifelong learners and educators.

HUM 101G
HH
Humanities Through the Arts
3

Studies the media and compositional elements of the various art forms (literature, music, visual arts, theater, film, dance, and architecture), for greater understanding and enjoyment. Teaches how to interpret artistic meaning by analyzing artworks formally as well as in their historical contexts, such as the predominant subject matters and styles of their period. Encourages students to integrate the arts into their daily lives habitually, so that they become lifelong learners and educators.

HUM 101H
HH
Humanities Through the Arts
3

Studies the media and compositional elements of the various art forms (literature, music, visual arts, theater, film, dance, and architecture), for greater understanding and enjoyment. Teaches how to interpret artistic meaning by analyzing artworks formally as well as in their historical contexts, such as the predominant subject matters and styles of their period. Encourages students to integrate the arts into their daily lives habitually, so that they become lifelong learners and educators.

HUM 102R
Humanities Forum
3

Introduces students to a wide variety of aspects of the humanities. Provides enriched learning situations in which students are exposed to humanities events or noted guest scholars and other lecturers. Requires attendance of a choice of specified events on campus and off, as well as of workshop meetings with an instructor. May be repeated for a maximum of 6 credits toward graduation.

HUM 103R
Humanities Forum
3

Introduces students to a wide variety of aspects of the humanities. Provides enriched learning situations in which students are exposed to humanities events or noted guest scholars and other lecturers. Requires attendance of a choice of specified events on campus and off, as well as of workshop meetings with an instructor. May be repeated for a maximum of 6 credits toward graduation.

HUM 2010 (Cross-listed with: HUM 201G)
HH
World History Through the Arts I
3

Studies early societies through the 1600s, as the first part of a two-part series which examines world civilizations through the arts. Explores formative creative events in history and their relationships to modern issues. Presents perspectives of traditional humanistic values of arts and ideas. Investigates how others have dealt with problems that humans faced in the past, and possible strategies for problem solving that might aid students today.

HUM 201G (Cross-listed with: HUM 2010)
HH
World History Through the Arts I
3

Studies early societies through the 1600s, as the first part of a two-part series which examines world civilizations, including non-Western civilizations, through the arts. Explores formative creative events in history, and their relationships to modern issues. Presents perspectives of traditional humanistic values of arts and ideas. Investigates how others have dealt with problems that humans faced in the past, and possible strategies for problem solving that might aid students today. Promotes a trans- and intercultural, global understanding of human creativity and its impact through the ages.

HUM 201H
HH
World History Through the Arts I
3

The first of a two-part series which examines world civilizations through the arts. Studies early societies through the 1600s. Explores formative creative events in history and their relationships to modern issues. Presents perspectives of traditional humanistic values of arts and ideas. Investigates how others have dealt with problems that humans faced in the past, and possible strategies for problem solving that might aid students today.

HUM 2020
HH
World History Through the Arts II
3

Studies societies from the 1600s, as the second part of a two-part series which examines world civilizations through the arts. Explores formative creative events in history and their relationships to modern issues. Presents perspectives of traditional humanistic values of arts and ideas. Investigates how others have dealt with problems that humans face in the past, and possible strategies for problem solving that might aid students today.
HUM 202G  
World History Through the Arts II  
3
Studies societies from the 1600s, including non-Western societies, as the second part of a two-part series which examines world civilizations through the arts. Explores formative creative events in history and their relationships to modern issues. Presents perspectives of traditional humanistic values of arts and ideas. Investigates how others have dealt with problems that humans face in the past, and possible strategies for problem solving that might aid students today.

HUM 202H  
World History Through the Arts II  
3
The second of a two-part series which examines world civilizations through the arts. Studies societies from the 1600’s. Explores formative creative events in history and their relationships to modern issues. Presents perspectives of traditional humanistic values of arts and ideas. Investigates how others have dealt with problems that humans face in the past, and possible strategies for problem solving that might aid students today.

HUM 203G  
Art Form Focus I  
3
Surveys the nature, history, and possibilities of one specific art form, such as painting, sculpture, theater, architecture, dance, music, or literature, in the context of the influence that art forms exert on each other. Deals with characteristics of a chosen art form prior to 1500 in more depth than HUM 1010 or 2010 can, while highlighting how creative events in human history always are in dialogue both with the social discourses of their times and with each other.

HUM 204G  
Art Form Focus II  
3
Surveys the nature, history, and possibilities of one specific art form, such as painting, sculpture, theater, architecture, dance, music, or literature, in the context of the influence that art forms exert on each other. Deals with characteristics of a chosen art form after 1500 in more depth than HUM 1010 or 2010 can, while highlighting how creative events in human history always are in dialogue both with the social discourses of their times and with each other.

HUM 2100  
Adventures of Ideas Through 1500  
3
Studies great written or visual texts in the Western or Eastern history of ideas--artistic, literary, philosophical, religious, political, technological, or scientific--from Antiquity through 1500. Readings and thematic focus vary by instructor, but all courses interrelate texts from different disciplines and world regions under one broad topic relating to the human condition, such as love, death, war and peace, family, justice, the state etc.

HUM 210H  
Adventures of Ideas Through 1500  
3
* Prerequisite(s): Enrollment in the UVU Honors program or approval by the instructor. Studies great written or visual texts in the history of ideas--artistic, literary, philosophical, religious, political, technological, or scientific--from Antiquity through 1500. Readings and thematic focus vary by instructor, but all courses interrelate texts from different disciplines and world regions under one broad topic relating to the human condition, such as love, death, war and peace, family, justice, the state etc. This Honors version of HUM 2100 requires more rigorous reading and writing assignments and is open to students in the Honors program or students with special approval from the instructor only.

HUM 2200  
Adventures of Ideas After 1500  
3
Studies great written or visual texts in the Eastern or Western history of ideas--artistic, literary, philosophical, religious, political, technological, or scientific--from the Renaissance through the present. Readings and thematic focus vary by instructor, but all courses interrelate readings from different disciplines and world regions under one broad topic relating to the human condition, such as individuality, power, health, freedom, violence, the natural environment, etc.

HUM 220H  
Adventures of Ideas After 1500  
3
* Prerequisite(s): Enrollment in the Honors Program or instructor’s approval. Studies great written and visual texts in the Eastern or Western history of ideas--artistic, literary, philosophical, religious, political, technological, or scientific--from the Renaissance through the present. Readings and thematic focus vary by instructor, but all courses interrelate readings from different disciplines and world regions under one broad topic relating to the human condition, such as individuality, power, health, freedom, violence, the natural environment, etc. This Honors version of HUM 2200 requires more rigorous reading and writing assignments and is open to students in the Honors program or students with special approval from the instructor only.

HUM 2500  
Introduction to Ancient Greek I  
6
* Prerequisite(s): ENGL 1010 or ENGH 1005
Allows students the opportunity to intensively study the Ancient Greek language at the introductory level. Focuses primarily on Attic Greek. Focuses primarily on grammar and textbook exercises with some analysis of literary and/or philosophical selections in Ancient Greek. Relates particularly to students interested in studying Ancient Greek philosophy or Ancient Greek literature, and offers an important grounding for students interested in studying the New Testament.

HUM 2510  
Introduction to Ancient Greek II  
6
* Prerequisite(s): HUM 2500
Allows students to continue intensive study of the Ancient Greek language at the introductory level. Focuses primarily on Attic Greek. Focuses primarily on grammar and textbook exercises with some analysis of literary and/or philosophical selections in Ancient Greek. Relates particularly to students interested in studying Ancient Greek philosophy or Ancient Greek literature and an important grounding for students interested in studying the New Testament.

HUM 281R  
Internship  
1 to 6
* Prerequisite(s): Approval of Cooperative Coordinator
* Prerequisite(s) or Corequisite(s): Completion of at least nine credits of class work in Humanities.
Provides pre-advanced Humanities students to receive credit for Humanities-related service as a paid or unpaid intern in a governmental, not-for-profit, or private agency. Provides practical and research development in the selected areas of service so as to further students’ academic and professional interests and goals. Internship must be supervised by agency representative. Must be approved by Humanities internship advisor and department chair and written contracts must be completed and signed. Credit is determined by the number of hours a student works during the semester. May be repeated for a maximum of 9 credits toward graduation. May be graded credit/no credit.

HUM 299R  
Independent Study  
1 to 3
Provides independent study as directed in reading and individual projects. Request must be submitted for approval by the department. Students may do independent study for one, two or three credits with a limit of three credits applying toward graduation with an AA/AS degree.
HUM 295R
Directed Readings
1 to 3
Provides an opportunity for second year students to do in-depth research within the Humanities. Study is limited to advanced work beyond that which can be completed in existing, available classes. A proposal must be submitted and approved by the department prior to enrollment.

HUM 3060 (Cross-listed with: ENGL 3060)
Visual Rhetoric
3
* Prerequisite(s): ENGL 2010 with a grade of C- or higher and University Advanced Standing

Investigates the growing academic and cultural interest in the rhetorical nature of visual texts. Teaches critical thinking about the consumption and productions of images and multimodal texts. Explores visual grammars and other theories of visual rhetoric as articulated by contemporary image, language, and scholars of rhetoric. Encourages the development of theoretical and practical knowledge through reading, discussion, and analysis as well as through the production of visual texts and written work.

HUM 320R
Topics in Humanities
1 to 3
* Prerequisite(s): (ENGL 2010 or at least sophomore status) and University Advanced Standing

Studies varying topics such as a theme (e.g., death or story-telling), figure (e.g., John Cage or Michelangelo), or movement (e.g., DaDa or Pragmatism) in humanities. Involves study of more than one art form (e.g., film, literature, and music) or discipline (e.g., art, history, and biology). May be repeated for a maximum of 6 credits toward graduation with different topics.

HUM 325R
Area Studies in Humanities
3
* Prerequisite(s): (ENGL 2010 or at least sophomore status) and University Advanced Standing

Studies the literature, philosophy, and arts of a particular geographical area. Topics vary. May be repeated for a maximum of 6 credits toward graduation with different topics.

HUM 330R
Period Studies in Humanities
3
* Prerequisite(s): (ENGL 2010 or at least sophomore status) and University Advanced Standing

Studies a particular period within the humanities (such as the medieval world, Romanticism or Modernism). Involves study of more than one art form (e.g., music, art, and literature) or discipline (such as literature and philosophy) from the chosen period. Topics vary. Repeatable, with different topics, toward graduation.

HUM 3500
Approaches to Humanities WE
3
* Prerequisite(s): University Advanced Standing

Surveys recent critical and aesthetic theory for each art form and teaches students how to apply theoretical approaches to the interpretation of individual texts, films, artworks, buildings, performances, etc. Includes readings of seminal works by philosophers, academic or professional critics, and practicing artists. Studies examples where the apparent divide between theory and practice is collapsed, where, for instance, an artistic product in itself may have provided a new approach for future artistic productivity and interpretation, or where a theoretical contribution has been made in such a way as immediately to demonstrate a certain creative practice.

HUM 3800 (Cross-listed with: PHIL 3800)
Aesthetics
3
* Prerequisite(s): University Advanced Standing

Studies aesthetics as perceived by the disciplines of philosophy, psychology, sociology, anthropology, history, and others. Analyzes art forms, including the visual arts, literature, music, and theater from the perspectives of philosophers such as Plato, Aristotle, Kant, Hume, Dewey, Danto, Bell, Collingwood, Thoreau, and Dickie.

HUM 3820 (Cross-listed with: PHIL 3820)
Philosophy Through Literature
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing

Provides students with an interdisciplinary approach to the study of philosophy through literature. Offers an opportunity to read seminal works by philosophers, academic or professional critics, and practicing artists. Studies examples where the apparent divide between theory and practice is collapsed, where, for instance, an artistic product in itself may have provided a new approach for future artistic productivity and interpretation, or where a theoretical contribution has been made in such a way as immediately to demonstrate a certain creative practice.

HUM 400R
Humanism and Posthumanism
3
* Prerequisite(s): At least junior standing and University Advanced Standing

Explores Humanism or Posthumanism across the arts and their diverse cultural history. Defines humanism as varieties of the traditional view that Man is the measure of all things, and Posthumanism as an umbrella term for recent theoretical approaches within the humanities that challenge this view, for instance by placing humanity in the context of global or universal, intrinsically diverse and self-generating, scientific, technological, or ecological systems. May compare aspects of humanism throughout space and time, in its diverse cultural manifestations, or may focus on a twenty-first-century view of these long traditions. May also choose the example of the humanistic or posthumanistic aspects of a single time period, culture, or interdisciplinary oeuvre. Offers an opportunity to advanced students to synthesize, critique, and strengthen their own viewpoints, and to expand their interdisciplinary understanding of human expression, in response to the most fundamental or recent currents within intellectual history. May be repeated for a maximum of 6 credits toward graduation.
HUM 4300 (Cross-listed with: PHIL 4300)
Environmental Aesthetics
3
* Prerequisite(s): (PHIL 000, PHIL 100H, PHIL 2050, PHIL 205H, PHIL 205G, ENST 3000, HUM 1010, HUM 101H, HUM 101G, or HUM 3500) and University Advanced Standing

Introduces students to emerging themes in environmental aesthetics. Evaluates concepts and attitudes toward nature including, but not limited to, the concept of beauty in natural and human-made environments from a cross-cultural perspective. Studies environmental formalism, cognitivism and non-cognitivism, as well as divergent spiritual, ecological, religious, and moral approaches to the appreciation of nature.

HUM 481R
Internship
1 to 6
* Prerequisite(s): Departmental chair approval and University Advanced Standing

Allows advanced Humanities students to receive credit for Humanities-related service as a paid or unpaid intern in a governmental, not-for-profit, or private agency. Provides practical and research development in the selected areas of service so as to further students’ academic or professional interests or goals. Internship must be supervised by agency representative. Must be approved by Humanities internship advisor and department chair and written contracts must be completed and signed. Credit is determined by the number of hours a student works during the semester. May be repeated for a maximum of 9 credits toward graduation. May be graded credit/no credit.

HUM 490R
Directed Readings
1 to 3
* Prerequisite(s): Department Chair Approval, Instructor Approval, and University Advanced Standing

Designs reading and writing assignments in consultation with a faculty member to meet special needs or interests not available through regular course work. May be repeated for a maximum of 6 credits toward graduation.

HUM 4910
Humanities Capstone WE
3
* Prerequisite(s): Senior Standing and University Advanced Standing
* Prerequisite(s) or Corequisite(s): HUM 3500

Instructs Humanities majors in their last year of the program on how to conduct research, develop a complex critical argument, and write and defend a senior thesis. Encourages students to explore their desired professional or graduate research interests.

Health and Wellness Coaching (HWC)

HWC 2000
Lifestyle Medicine for Health Coaching
2
Examines the use of lifestyle medicine practices in health coaching. Focuses on health biometrics, evidence-based health practices, wellness and well-being concepts, chronic disease, health behaviors, social, and behavioral risks factors such as healthy weight, optimal nutrition and hydration, physical activity and sedentary lifestyle, sleep, stress and emotional wellness, and substance use.

Int College and Community Stds (ICCS)

ICCS 1010
Self Determination I
2
Introduces self-management and self-determination skills contributing to personal effectiveness in the workplace, academic environments, and independent living. Addresses understanding of differences among people, disability disclosure, expressing preferences, making informed choices, goal setting, and self-advocacy.

ICCS 1020
Living and Working in the Community I
2
Provides instruction in the development of independent living skills including identifying and evaluating housing options, care and maintenance of a home, meal planning, and household budgets. Develops skills for navigating the community and accessing resources.

ICCS 1030
Social Skills, Sexuality, and Mature Relationships
2
Addresses the development of social skills to support adult friendships and intimate relationships. Includes an analysis of contextual variables affecting social skills, understanding of the boundaries of various adult relationships, and appropriate behavior in intimate relationships. Introduces the critical concepts of consent, and safety in relationships.

ICCS 110R
Career Development I
1 to 3
* Corequisite(s): ICCS 120R

Explores career options through the use of videos, printed material, and personal contact with professionals and vocational experts. Focuses on equipping students with skills and information used for job hunting, resume preparation, job applications, and interviewing. May be repeated for a maximum of 9 credits toward graduation.

ICCS 120R
Career Development Practicum I
1 to 3
Engages in a variety of internship/practicum experiences of varying lengths to identify personal strengths and abilities and the possible career paths that match these skills. Identifies areas for personal development to increase career options and promote employment success. May be repeated for a maximum of 9 credits toward graduation.

ICCS 2010
Self Determination II
2
Focuses on the application of self-determination to everyday challenges. Introduces the application of personal goal setting and self-advocacy to achieve career and independent living goals. Supports the development of self-awareness and self-reflection as tools to move toward individual goals.

ICCS 2020
Living and Working in the Community II
2
Explores the wide variety of community supports and services available for living and working independently. Identifies necessary supports such as banking, healthcare, government agencies, businesses, and recreational options in the local community and teaches appropriate communication and social skills to demonstrate the ability to access necessary services and supports.

ICCS 2030
Problem Solving for Adulthood
2
Introduces the social problem-solving framework. Explores application of the framework to problems common to living and working independently, including problems in relationships, issues that arise in the workplace, and problems associated with living independently in the community. Teaches problem-solving skills to help make appropriate choices in challenging situations such as interpersonal conflict, personal safety, and coercive interactions.

Utah Valley University  
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ICCS 210R  
Career Development II  
1 to 3  
* Corequisite(s): ICCS 220R  
Provides instruction in the skills necessary for maintaining employment such as communicating effectively with supervisors, interacting appropriately with others in the workplace, advocating for personal needs/supports, performing necessary duties, and giving and receiving feedback. Teaches the application of problem-solving skills to maintain employment. May be repeated for a maximum of 9 credits toward graduation.

ICCS 220R  
Career Development Practicum II  
1 to 3  
Provides internship/practicum experiences on campus and in the community. Teaches social, communication, and self-advocacy skills to promote success in the workplace. Supports interaction with supervisors and co-workers in a positive and productive manner to maintain relationships and enhance job performance. Teaches strategies to build relationships and contacts for the future while developing marketable skills. May be repeated for a maximum of 9 credits toward graduation.

Interdisciplinary Studies Prog (IDST)  
IDST 4900  
Interdisciplinary Studies Capstone  
3  
* Prerequisite(s): Senior status and University Advanced Standing  
For students nearing completion of an Interdisciplinary Studies minor. Provides an opportunity for students to synthesize their interdisciplinary course work. Requires and facilitates a major research project. Addresses the theoretical and practical problems of interdisciplinary research and writing. Requires participation in peer review groups and in-class presentations.

Information Management (IM)  
IM 1010  
Basic Computer Applications  
3  
* Prerequisite(s): Basic keyboarding skill  
Prepares students for the IC3 certification exam. Teaches basic computer fundamentals, digital living concepts, and key applications. Includes PC computer system concepts, basics of the Windows operating system, software licensing and installation, electronic communication, Internet and research fluency, and ethical computer usage. Provides hands-on experience in the basic features of Microsoft Word, PowerPoint, Excel, and Access as common business problem solving and communication tools. May be delivered hybrid and/or online. Lab access fee of $45 for computers applies. Canvas Course Mats $78/Cengage applies. Software fee of $10 applies.

IM 101A  
Word Processing Applications  
1  
Introduces word processing software. Emphasizes commands needed to create, format, revise, save, and print documents. Includes inserting and formatting graphics, tables, and tabs into a text document. Lab access fee of $45 for computers applies.

IM 101B  
Presentations Applications  
.5  
Introduces presentation software. Emphasizes process of creating, formatting, revising, saving, print, and showing presentations. Includes planning a slide show, choosing appropriate designs, and using templates. Lab access fee of $45 for computers applies.

IM 183R  
IM Student Chapter  
1  
Develops insights regarding lifetime careers and advancement opportunities in business, education, and industry through participation in a student organization. Helps students develop professionally through opportunities to use and apply, human relations, management, social, communicative, and organizational skills. Provides opportunities for leadership positions, committee assignments, participation in school and community activities, and competition in state and national competitive events. Requires payment of local, state, and national dues. Students may choose membership in Phi Beta Lambda, the collegiate division of FBLA (Future Business Leaders of America), or IAAP (International Association of Administrative Professionals). Designed for information management and education-oriented students but open to all students interested in lifetime business skills. Graded credit/no credit. May be repeated for a maximum of 4 credits toward graduation. Lab access fee of $45 for computers applies.

IM 184R  
IM Student Leadership  
1  
* Prerequisite(s): Instructor Approval  
For Phi Beta Lambda officers and International Association of Administrative Professionals. Includes development, organization, and direction of the Program of Work for student chapters. Graded on a credit/no credit basis. May be repeated for a maximum of 4 credits toward graduation.

IM 2010  
Business Computer Proficiency  
3  
* Prerequisite(s): (IM 1010 recommended) or (Basic Computer Applications Challenge Exam with a minimum score of 80% recommended)  
Encompasses two software applications, Microsoft Excel and Microsoft Access, from a business perspective. Covers intermediate level problem solving and production skills. Uses business applications in case study settings to solve problems and accomplish tasks. In company with IM 1010, meets/exceeds the Board of Regent's Business Core Advisory Committee's requirement and the Business Computer Proficiency required by the Woodbury School of Business. May be delivered online. Lab access fee of $45 for computers applies. Canvas Course Mats $100/ Pearson applies. Software fee of $18 applies.
Course Descriptions

IM 201A
Spreadsheet Applications
2
* Prerequisite(s): (IM 1010 with a grade of B- or higher) or (Basic Computer Applications Exam with a score of 80% or higher) or Instructor Approval

Introduces spreadsheet software. Emphasizes process of creating, formatting, enhancing, revising, saving, and printing spreadsheets. Stresses use of formulas and functions to solve problems. Includes creating charts using spreadsheet data. Lab access fee of $45 for computers applies.

IM 201B
Database Applications
1
* Prerequisite(s): (IM 1010 with a grade of B- or higher) or (Basic Computer Applications Exam with a score of 80% or higher) or Instructor Approval

Introduces database software. Emphasizes process of designing, modifying, and creating related tables. Includes creating forms, generating reports and labels and constructing queries. Lab access fee of $45 for computers applies.

IM 2100
Document Processing Applications
3
* Prerequisite(s): Basic keyboarding skills


IM 2300
Information Management Principles
3
* Prerequisite(s): IM 1010 or IM 2010 or IM 2100

Includes storage and retrieval systems, managing manual and electronic files, cross referencing, automated records systems, safety, security, and disaster recovery. Discusses the records cycle, equipment, supplies, retention schedules, and micrographics and image technology. Explores legal and ethical concerns. Lab access fee of $45 for software applies. Canvas Course Mats $78/Cengage applies.

IM 2400
Presentation Applications
3
* Prerequisite(s): IM 1010 or IM 2010 or IM 2100 or Instructor Approval

Uses a presentation software tool to create computer slide presentations, business charts and graphs, illustrations for desktop publishing, text charts, and other business-oriented publications. Incorporates presentation templates, clip art, charts and graphs, scanned images, sound, animations, video, and hyperlinks to create projects. Software fee of $8 applies. Lab access fee of $45 for computers applies.

IM 2500
Graphic Applications
3
* Prerequisite(s): IM 1010 or IM 2100 or Instructor Approval

Explores digital image editing using Adobe Photoshop and Adobe Illustrator. Provides an overview of image optimization processes for the web. Lab access fee of $45 for computers applies.

IM 2600
Spreadsheet Applications
3
* Prerequisite(s): MAT 0990 or equivalent business math knowledge; basic keyboarding skill

Provides an extensive study and hands-on examination of practical business applications using electronic spreadsheets. Provides comprehensive coverage of features available in the current Windows version of spreadsheet software. Software fee of $18 applies. Lab access fee of $45 for computers applies. Canvas Course Mats $72/McGraw applies.

IM 2800
Integrated Software Projects
3
* Prerequisite(s) or Corequisite(s): IM 2100 and IM 2600 or Instructor Approval

Emphasizes organizing projects, prioritizing tasks, working under time pressures, and dealing with stressful situations. Requires completion of advanced document production in an automated environment using current versions of suite software packages. Course projects stress self-motivation, acceptance of responsibility, critical thinking, and effective decision making. Designed to prepare students majoring in administrative information management to enter the work force, and should be taken at the end of a program in order to grasp the concepts presented and, with little supervision, produce material acceptable on the job. Software fee of $18 applies. Lab access fee of $45 for computers applies. Software fee of $8 applies.

IM 281R
Internship
1 to 8
* Prerequisite(s): Departmental Approval

For Information Management majors only. Provides a transition from school to work where learned theory is applied to actual practice through a meaningful on-the-job experience. Includes student, employer and coordinator evaluations, on-site work visits, and written assignments. Completers should obtain experience in establishing and accomplishing individualized work objectives that improve work performance. Internship is intended for entry level IM students who are working at that level. Credit is determined by the number of hours a student works during the semester and completion of individually set goals. May be repeated for a maximum of 9 credits towards graduation. May be graded credit/no credit.

IM 290R
Current Topics in Information Management
1 to 3
* Prerequisite(s): Departmental Approval

Designed for students interested in specific information management tools and concepts. Includes relevant and changing topics and tools used by business and industry. Emphasizes hands-on experience along with lectures and demonstrations. May be taken for a total of 9 credits toward graduation. Lab access fee of $45 for computers applies.

IM 3500
Desktop Publishing Applications
3
* Prerequisite(s): (IM 2100 or Instructor approval) and University Advanced Standing

For administrative information management or administrative information support majors and others interested in learning desktop publishing features. Teaches the use of current desktop publishing software in a Windows environment. Emphasizes production of complex documents for the purpose of publication. Teaches formatting and design principles through the use of theory instruction, demonstration, and hands-on experience. Lab access fee of $45 for computers applies.

IM 3600
Advanced Excel for Decision Making
3
* Prerequisite(s): IM 2010 or IM 2600 and University Advanced Standing

Uses Microsoft Excel as a reporting tool and as a modeling tool for solving business problems. Focuses on reporting, analyzing data, and building analytic models to improve operations, increase profits, or reduce costs. Builds models to help make business decisions including advanced functions, dashboards, forecasting, optimization, and simulation. Lab access fee of $45 applies.
Course Descriptions

IM 3700  
Database Applications  
3  
* Prerequisite(s): Basic keyboarding skill and University Advanced Standing

Explores creating and utilizing database files using database management software. Covers basic concepts of database management emphasizing commonly used applications. Teaches use of reports, letters, labels, custom screens, and queries in a business setting. Software fee of $10 applies. Lab access fee of $45 for computers applies.

IM 4300  
Information Workflow Management  
3  
* Prerequisite(s): (TECH 3400 or Instructor approval) and University Advanced Standing

Emphasizes leadership, organization, problem-solving, and critical thinking skills in directing the completion of documents and projects in an automated and integrated environment. Covers a variety of leadership activities including planning and organizing new projects; directing new and ongoing operations; and using available technology to process, analyze, manage, and communicate information. Stresses leadership, self-motivation, effective decision making, and critical- and creative-thinking skills. Teaches the role of a project manager or business manager. Lab access fee of $45 for software applies.

IM 481R  
Internship  
1 to 8  
* Prerequisite(s): Instructor approval and University Advanced Standing

For Information Management majors only. Provides a transition from school to-work where learned theory is applied to actual practice through a meaningful on-the-job experience. Includes student, employer and coordinator evaluations, on-site work visits, and written assignments. Provides experience in establishing and accomplishing individualized work objectives that improve work performance. Internship is intended for senior IM students who are working at that level. Credit is determined by the number of hours a student works during the semester and completion of individually set goals. May be repeated for a maximum of 9 credits toward graduation. May be graded credit/no credit.

IM 490R  
Advanced Topics in Information Management  
1 to 3  
* Prerequisite(s): Departmental Approval and University Advanced Standing

Includes relevant and changing topics and tools used by business and industry. Emphasizes hands-on experience. May be repeated for a maximum of 9 credits toward graduation. Lab access fee of $45 for computers applies.

IM 496R  
Information Management Seminar  
1 to 3  
* Prerequisite(s): IM 2300 and University Advanced Standing

Provides short courses, workshops, and special programs in information management or current business topics. May be repeated for up to 6 credits toward graduation.

IM 497R  
Independent Study  
1 to 3  
* Prerequisite(s): Instructor Approval and University Advanced Standing

For bachelor's degree students and other interested persons. Offers independent study as directed in reading or in individual projects; offered at the discretion and approval of the department chairperson. May be repeated for a maximum of 9 credits toward graduation.

Info Systems and Technology (INFO)

INFO 1000  
E-Commerce Techniques for Small Business  
3  
* Prerequisite(s)or-Corequisite(s): Basic Computer Proficiency or IM 1010 strongly recommended

Introduces strategies and best practices for analyzing a target market, designing an online business, and implementing an e-Commerce solution. Discusses online marketing, branding, usability, search engine optimization, personalization, rapid development, theming, and security. Requires implementation of an online small business individually or with a group. Lab access fee of $45 for computers applies.

INFO 1120  
Information Systems and Technology Fundamentals  
3  
* Prerequisite(s): IM 1010 recommended

Explores the fundamental concepts of information technology and the role played by enterprise systems in business and organizational strategy. Introduces types of systems, computer organization and hardware, operating systems and networking, project planning, software development, computer ethics, and career paths for enterprise developers and IT professionals. Lab access fee of $45 for computers applies.

INFO 1200  
Computer Programming I for IS IT  
3  
* Prerequisite(s): MAT 1010 or higher; INFO 1120 recommended

Presents concepts of modern computer programming. Emphasizes problem-solving, algorithm development, and programming design. Stresses constructs, data representation, fundamental types and data structures, decision structures, repetition structures, methods, arrays, classes, and objects. Includes testing, debugging, and documentation. Introduces object-oriented, event-driven programming models. Lab access fee of $45 for computers applies.

INFO 2100  
Computer Proficiency for Technology Professionals  
3  
* Prerequisite(s): (ENGL 1010, ENGH 1005, or higher) and (MAT 1030 or higher)

For Technology Management and Construction Management students. Provides opportunities for students to gain proficiency in using Microsoft Office (Word, PowerPoint, Excel, and Access) to enhance their business productivity and problem-solving skills. Teaches students to apply information technologies to problem situations. Meets computer proficiency requirement for Technology Management degree. Lab access fee of $45 for computers applies.

INFO 2200  
Computer Programming II for IS IT  
3  
* Prerequisite(s): (INFO 1200 or CS 1400 with a grade of C- or better within the past seven years) or Departmental Approval  
* Prerequisite(s) or Corequisite(s): MATH 1050 or higher

Focuses on object-oriented design and programming methodologies. Teaches inheritance, polymorphism, and encapsulation. Develops knowledge to abstract functionality by using interfaces. Covers collection classes, generics, exception handling, file handling, and more advanced topics such as accessing databases via LINQ, socket/network programming, and multi-threading. Lab access fee of $45 for computers applies.

INFO 2410  
Database Fundamentals  
3  
* Prerequisite(s): (INFO 1120 recommended) or (IM 2010 recommended)

Introduces concepts and use of database management systems. Presents the relational model. Structured Query Language, database design including normalization theory, and application development tools using an enterprise-level relational database management system. Lab access fee of $45 for computers applies.
INFO 2420
Web Application Design
3
* Prerequisite(s): INFO 1120 recommended or IM 1010 recommended

Focuses on the design and construction of Web pages and maintenance of Web sites. Includes foundations in standards-based HTML and CSS. Covers code markup, design concepts and web graphics manipulation, page layout, form development, and usability and accessibility issues. Teaches use of Web authoring tools for code development and site management. Requires individual projects. May be delivered hybrid and/or online. Lab access fee of $45 for computers applies.

INFO 281R
Internship
1 to 8
* Prerequisite(s): Department Approval

Provides opportunities to apply classroom theory on the job. Requires work as paid employees in a job that relates to their careers while enrolled at the College. Students meet at least monthly with the Departmental Internship Coordinator. Completers meet individually set goals. Six credits may be applied toward graduation with an AAS degree and three credits toward certificate programs. May be graded credit/no credit.

INFO 297R
Independent Study
1 to 3
* Prerequisite(s): Department Approval

Offers independent study as directed in reading in individual projects. Approval for this course is at the discretion of the department chairperson. May be repeated for a maximum of 9 credits toward graduation. Lab access fee of $45 for computers applies.

INFO 3120
Management Information Systems
3
* Prerequisite(s): ([MKTG 220G or ENGL 2010] and [Computer Proficiency or INFO 1120 or IM 2010 or IM 2600 with a grade of C- or better within the past five years]) or departmental approval] and University Advanced Standing

Introduces the field of information systems and technology. Discusses how to use and manage the most current information technologies (IT) from the perspective of a general business manager. Studies the Internet, Intranets, and Extranets for electronic commerce and enterprise collaboration. Examines business cases demonstrating IT contributions to competitive advantage, reengineering business processes, and decision making. Lab access fee of $45 for computers applies.

INFO 3130
Introduction to Applied Data Analytics
3
* Prerequisite(s): Basic statistics course (MGMT 2340 or STAT 1040 or STAT 1045 or STAT 2040 or STAT 2050 or PSY 3110), and basic knowledge of Microsoft Excel, or Departmental Approval and University Advanced Standing

Intended for people who will be working with data analysts and data scientists, managing analytics projects, or investing in analytics ventures, and aspiring data scientists. Provides opportunities for students to gain skills in data-analytic thinking required to succeed in today's analytical and data-driven economy. Introduces the basics of data management and data analytics. Covers core analytic techniques: data exploration and visualization, pattern discovery (segmentation and association), predictive modeling (decision tree, logistic regression, neural network), and forecasting. Lab access fee of $45 for computers applies.

INFO 3300
Web Systems Development
3
* Prerequisite(s): ([INFO 1200 or IT 1200 or CS 1400] and [INFO 2410 or CS 3520] both with a grade of C- or higher within the past seven years] and University Advanced Standing; INFO 2420 recommended

Emphasizes interpretation of business processes, process modeling, and implementation of the models as web applications. Teaches how to implement web solutions that use a relational database backend to manage site data using an industry-standard programming language to interact with the database to produce dynamic web content. Covers parameter passing, cookie storage, and session variables. Introduces application platforms that can be customized to new business requirements. Highlights how to use content management systems (CMS) and how to customize such systems to quickly produce web applications to meet business needs. Lab access fee of $45 applies.

INFO 3330
Client-Side Web Development
3
* Prerequisite(s): ([INFO 1200 or IT 1200 or CS 1400] and [INFO 2410 or CS 3520] both with a grade of C- or higher within the past seven years] and University Advanced Standing; INFO 2420 recommended

Teaches how to create high performance and scalable web sites using JavaScript across the client and server (full development stack). Teaches how to program directly in JavaScript as well as how to utilize JavaScript libraries and frameworks. Introduces popular JavaScript libraries to perform client-side form validation, make AJAX server calls, and deploy mobile apps based on web standards. Covers application development using client-side frameworks that implement model view controller design patterns. Introduces server-side JavaScript tools and the NoSQL database to manage application data. Lab access fee of $45 applies.

INFO 3360
Server-Side Web Frameworks
3
* Prerequisite(s): ([INFO 1200 or IT 1200 or CS 1400] and [INFO 2410 or CS 3520] both with a grade of C- or higher within the past seven years] and University Advanced Standing; INFO 2200 recommended

* Prerequisite(s) or Corequisite(s): INFO 3300

Emphasizes web application development using modern server-side frameworks for web site architecture as well as data integration technologies. Covers server-side architectural design patterns in depth using Model View Controller (MVC) frameworks. Covers Object Relational Mapping (ORM) tools for database integration as well as techniques to secure a website from common attacks. Teaches how to implement web site authentication and authorization, form validation, web services, and introduces unit testing and test-driven development. Teaches how to package and deploy applications to a web server. Lab access fee of $45 applies.

INFO 3410
Database Systems and Warehousing
3
* Prerequisite(s): (INFO 2410 or CS 3520 with a grade of C- or higher within the past seven years] and University Advanced Standing

Covers advanced database development topics and introduces a data warehouse model designed especially to support analytics and reporting needs. Database development topics covered include transaction management, performance optimization, data loading, and the development of stored procedures, triggers, and functions. Presents the data warehouse model in contrast to existing operational transaction systems. Analyzes business reporting needs, creates models for data warehouses based on the reporting needs, and uses SQL to create and populate tables based on dimensional models. Lab access fee of $45 for computers applies.
INFO 3430
Systems Analysis and Design WE
3
* Prerequisite(s): [INFO 2410 and (INFO 2420 or IT 2700)] or [IM 2600 and IM 2800] each with a grade of C- or higher within the past seven years] and (MKTG 220G or ENGL 2100) and University Advanced Standing

Introduces the systems development life cycle with a focus on systematic planning; requirements, process, and data analysis; and an overview of the design phase. Covers fundamental principles, effective processes, and techniques of project management, including scheduling and project control. Covers appropriate methodologies, tools, diagrams, and techniques for systems analysis, design, and project management. Requires working in teams to complete and present the first planning and analysis phases of a project for a client. Should be taken in the end of the junior year or first semester of the senior year. Should be taken in sequence with INFO 4430 immediately following this course. Lab access fee of $45 for computers applies.

INFO 3700
Health Informatics Fundamentals
3
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): INFO 2410 or ZOOL 1090 or HLT 3200

Introduces the concepts, practices and ethics of health informatics. Includes a survey of current health care information systems, such as electronic health records, practice management systems, patient portals, consumer health informatics, disease registries, e-prescribing, telemedicine, and public health informatics. Surveys health care information exchange and related standards and classification systems used to implement interoperable computer-based patient records. Examines privacy and security measures, such as HIPAA, HITECH Act, and Meaningful Use and how they are related to data security, privacy and public perception. Lab access fee of $45 for computers applies.

INFO 3750
Healthcare Information Systems Applications
3
* Prerequisite(s): [(INFO 1200 or IT 1200 or CS 1400) and (INFO 2410 or CS 3520) both with a grade of C- or higher within the past seven years] and University Advanced Standing
* Prerequisite(s) or Corequisite(s): INFO 3700

Provides pragmatic coverage of the topics and resources relevant to health informatics. Examines professional and ethical issues within the information systems and information technology fields with a global perspective. Covers ethical and legal issues IT professionals face dealing with computer and cybercrimes, privacy issues, freedom of expression, intellectual property, software development including risk analysis, and social networking. Includes career professional development through resumes, cover letters, and job interviews specific to information systems and technology. Focuses on global networked readiness, digital highways, and challenges that information technology organizations face. Lab access fee of $45 for computers applies.

INFO 405G
Global Ethical and Professional Perspectives in IS and IT GI WE
3
* Prerequisite(s): INFO 3430 and University Advanced Standing

Examines professional and ethical issues within the information systems and information technology fields with a global perspective. Covers ethical and legal issues IT professionals face dealing with computer and cybercrimes, privacy issues, freedom of expression, intellectual property, software development including risk analysis, and social networking. Includes career professional development through resumes, cover letters, and job interviews specific to information systems and technology. Focuses on global networked readiness, digital highways, and challenges that information technology organizations face. Lab access fee of $45 for computers applies. Canvas Course Mats $78/Cengage applies.

INFO 4120
Data Visualization
3
* Prerequisite(s): INFO 2410 and University Advanced Standing; INFO 3130 recommended

Focuses on extracting business intelligence from data sets for various applications including reporting and visual analytics in multiple domains including web analytics and business analytics to aid decision-making processes. Provides hands-on experience with a variety of business intelligence software for reporting and building visualizations and dashboards. Emphasizes how to extract, present and apply business intelligence to improve business decision making. Lab access fee of $45 for computers applies.

INFO 4130
Data Science and Big Data Analytics
3
* Prerequisite(s): (STAT 2050 or MGMT 2340), INFO 3130, and University Advanced Standing

Capstone course extends the concepts of analytics to the analysis of large data-sets, and preparation of analysis reports and presentations describing implications of findings. Uses modern tools such as SAS and R for advanced analytics and Hadoop for big data. Covers the theory and methods of advanced data analytics such as clustering, association, decision trees, time series, and text analysis. Hands-on application using a big data lifecycle lab. Lab access fee of $45 for computers applies.

INFO 4135
Data Security Analytics
3
* Prerequisite(s): IT 2700 and INFO 2410 and University Advanced Standing; (INFO 3130 and INFO 3410 recommended)

Introduces students to the concept of data analytics as applied to cyber security. Includes collection, aggregation, data mining, and analysis of various data sources. Utilizes data analytics tools that correlate data in order to identify security events that may go undiscovered by traditional detection and log analysis methods. Lab access fee of $45 for computers applies.

INFO 4300
Enterprise Web Development
3
* Prerequisite(s): INFO 3300 and University Advanced Standing

Addresses the challenges of developing software applications in a corporate environment. Covers methods to interact with code repositories and commit developed code. Teaches how to create web applications using test-driven development and how to write unit tests for applications. Teaches how to create and group unit tests together and how to trigger the tests automatically when code changes are made. Implements cloud deployments of web applications and teaches how to manage cloud resource usage. Lab access fee of $45 for computers applies.
INFO 4410
Database Administration
3
* Prerequisite(s): (INFO 2410 or CS 3520 within the past five years) and University Advanced Standing

Introduces students to the database administration tasks and tools of a Relational Database Management System (DBMS). Includes the core areas of installation and configuration, maintaining instances and databases, optimizing and troubleshooting, managing data, implementing security, and implementing high availability. Also, introduces NoSQL database solutions and their administration and configuration. Hands-on assignments provide students with opportunities to apply the knowledge gained in the course to a popular commercial database management system. Lab access fee of $45 for computers applies.

INFO 4415
Database Security and Auditing
3
* Prerequisite(s): (INFO 3410 or IT 3700) and University Advanced Standing

Utilizing theory, scenarios, and step-by-step examples, this course provides a strong foundation in database security and auditing. Covers the following topics in depth: the importance of database security in contemporary business environments; Security; Profiles; Password policies, privileges and roles; Virtual Private Databases; Auditing; SQL injection; Database management security issues. Lab access fee of $45 for computers applies.

INFO 4420
Mobile Application Development
3
* Prerequisite(s): (INFO 1200 or CS 1400) and (INFO 2410 or CS 3520) and University Advanced Standing; (INFO 2200 recommended or CS 1410 recommended)

Focuses on the design and development of native mobile application development. Covers mobile interface design and development using navigation controls specific to a popular mobile development platform. Introduces various user interface controls including those for displaying single data values and data collections along with their event models. Teaches methods for integrating apps with cloud-based data stores and cloud-based authentication. Composes apps with data from web services. Lab access fee of $45 for computers applies.

INFO 4425
Web and Application Security
3
* Prerequisite(s): (IT 2700 or CS 2550) and University Advanced Standing
* Prerequisite(s) or Corequisite(s): INFO 3300 or CS 3520

Covers the security of web and mobile applications from offensive and defensive standpoints. Explores common vulnerabilities of web and mobile applications and various tools and techniques for identifying and mapping the attack surface of such applications. Explores various techniques and attack vectors for exploiting security flaws in web and mobile applications. Implements secure coding best practices, defensive architecture, and Content Security Policy to mitigate security flaws and protect the applications, the web client, the communication channel, and the server. Lab access fee of $45 for computers applies.

INFO 4430
Systems Design and Implementation
3
* Prerequisite(s): INFO 3430 and University Advanced Standing

Continuation of INFO 3430. Focuses on the design and implementation of an information system using an agile, iterative development approach. Utilizes self-organizing teams that will deliver working software with ongoing customer collaboration. Introduces use of a source control system to manage code base, an agile project management tool, and encourages continuous integration practices.Requires that students work in teams to complete and present a working system of a project for a client. Lab access fee of $45 for computers applies.

INFO 4440
Enterprise Computing Environments
3
* Prerequisite(s): (ACC 2020 or INFO 3120 or TECH 4420) and University Advanced Standing

Introduces students to Enterprise Computing Environments. Focuses particularly on the configuration and information processing capabilities of e-commerce systems and Enterprise Resource Planning (ERP) systems. Requires students to install, configure, and customize the Magento ecommerce system, and to manage master data. Introduces both Microsoft Dynamics and the SAP ERP system. Uses SAP and Dynamics to demonstrate how enterprise software supports business processes such as order processing, materials requirements management, shipping, invoicing, and purchasing. Requires students to configure a fictional business using the SAP ERP system. May be delivered hybrid. Lab access fee of $45 for computers applies.

INFO 4550
Senior Project
3
* Prerequisite(s): INFO 3430 and University Advanced Standing

Involves the implementation of a significant information system or information technology project. Requires students to work in teams to design and develop a working information system or information technology solution for a community client. Culminates in a presentation of the completed project by project developers to project stakeholders, interested faculty, and administration. Lab access fee of $45 for computers applies.

INFO 459R
Current Topics in Information Systems
3
* Prerequisite(s): (Junior Standing or Department Approval) and University Advanced Standing

Provides exposure to emerging technologies and topics of current interest in information systems. Varies each semester depending upon the changes in the information systems discipline or to address a focused area within the information systems discipline. May be repeated for a maximum of 9 credits toward graduation. Lab access fee of $45 for computers applies.

INFO 4700
Healthcare Information Systems Management
3
* Prerequisite(s): University Advanced Standing

Overviews business practices related to health care information systems. Augments the study of the science of health information with an exposure to the practices whereby health care organizations set goals and objectives, design and implement IT solutions, manage the IT function and organization, and develop technology capital and operating budgets. Presents current best practices of the business of health informatics, drawn from industry journals and business analysis consultants. Covers the management aspects of the legal and ethical issues related to HIS including applying laws related to confidentiality and data security. Lab access fee of $45 for computers applies.

INFO 481R
Internship
1 to 3
* Prerequisite(s): One 3000 or 4000 level course in INFO, IT, MKTG, or MGMT; Department Approval; and University Advanced Standing

For upper-division students in information systems. Provides an opportunity to apply classroom theory while students work as employees in a job that relates to their careers in information systems. May be repeated for a maximum of 3 credits toward graduation.
Course Descriptions

INFO 489R
Undergraduate Research in Information Systems
1 to 4
* Prerequisite(s): Department approval and University Advanced Standing

Provides the opportunity to conduct research under the mentorship of a faculty member. Practices the theoretical knowledge gained in prior major courses. Creates a significant intellectual or creative product that is characteristic of the Information Systems discipline and worthy of communication to a broader audience. May be repeated for a maximum of 6 credits toward graduation.

INFO 497R
Independent Study
1 to 3
* Prerequisite(s): Department chair approval and University Advanced Standing

For bachelor's degree students and other interested persons. Offers independent study as directed in reading, in individual projects, at the discretion and approval of the department chairperson. May be repeated for a maximum of 9 credits toward graduation. Lab access fee of $45 for computers applies.

INFO 6420
Web and Mobile Application Security
3
* Prerequisite(s): Acceptance into Graduate Certificate or Master of Science in Cybersecurity or Departmental Approval
* Prerequisite(s) or Corequisite(s): IT 6300

Examines Web application vulnerabilities and remediation techniques. Explores various tools and techniques used to perform Web application assessments. Includes cross-site scripting, SQL injection, session management, and Web server configuration. Emphasizes practical skills developed through extensive hands-on exercises.

Intelligence Studies (INTS)

INTS 1000
Introduction to Intelligence Operations Studies
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Introduces the basic elements of intelligence: collection, analysis, dissemination, counterintelligence, and covert action. Examines the difference between intelligence and information. Describes the structure, functions, capabilities, and contributions of the national intelligence community, including Congress, the military, joint and unified commands, and law enforcement agencies. Identifies the various steps of the intelligence cycle and their purposes. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1010
Counterintelligence Investigations
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Introduces the principles, objectives, procedures, and reports used to conduct counterintelligence investigations within various investigative contexts. Assesses the planning, communicating, operating, credentialing, and investigating processes associated with counterintelligence investigations. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1020
Security Programs
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Introduces the principles, objectives, and basic procedures used to develop, account for, control, protect, and arrange for the eventual destruction of sensitive information and material. Prepares students for the investigation of security crimes and the protection of classified information and material in the custody of counterintelligence agents. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1030
Intelligence Law and Administration of Justice
1
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Introduces the legal principles of intelligence law as those principles apply to counterintelligence investigations and operations. Prepares students to use the principles of intelligence law as those principles apply to counterintelligence investigations and the administration of justice in the performance of their duties as counterintelligence agents. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1040
Analytical Process and Product
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Introduces the three analytical processes in the intelligence cycle: intelligence preparation of the battlefield, intelligence surveillance and reconnaissance, and targeting. Leverages analytical products associated with these processes such as PMESII, ASCOPE, Link- Pattern-Nodal analysis, threat characteristics, threat objectives, threat templates, the oil spot, and the situation template. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1050
Interrogation Operations
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Introduces the basic skills and knowledge to support the collection, dissemination, and protection of intelligence information during human intelligence operations. Applies conventional and unconventional sources with students performing as members of an interrogation team during simulated operations at both tactical and strategic levels. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1060
Map Reading and Analysis
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Applies map reading and analysis including marginal data, identification of terrain features, and calculation of azimuths. Teaches analytical skills essential to information gathering, collection capabilities, and interpretation of assets. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.
INTS 1080
Signal Theory
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Identifies the basic skills to intercept, analyze, and report non-communication signals. Includes the handling of classified material. Examines signal and wavelength theory, radar theory, electronic intelligence parameters, and basic collection operations. Assesses worldwide non-communications threats to include weapons systems operations, message information extraction, opposing forces operations, and situation analysis. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1090
Signal Analysis and Security
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Operates the applicable software. Displays automated situation map updates. Applies electronic messaging as part of an analysis control element team. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1100
Remote Sensing
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Analyzes hardcopy and softcopy imagery collected from the electronic magnetic spectrum. Utilizes intelligence databases as well as automated processing and dissemination systems to provide valid, accurate, and timely intelligence to appropriate agencies. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1110
Information Security for Intelligence Operations
1
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Assesses information security as it applies to intelligence operations in the military (INFOSEC). Examines specific INFOSEC issues, to include safekeeping and storage of classified materials, application of classification markings to appropriate documents, and proper destruction of classified materials. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1120
Imagery Analysis Techniques
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Develops the basic skills to successfully employ and analyze imagery in an operational environment. Introduces basic analytical techniques, sensor capabilities and limitations, characteristics of observed operational activity, spectral and stereoscopic imagery, and full motion video. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1130
Terrorism and Counterterrorism
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Examines the history of terrorism and the tactics and technologies used by terrorist groups. Assesses the nature of the terrorist threat and countermeasures to combat terrorism. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1140
Reporting of Intelligence Data
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Identifies the essential elements of information, selection of reporting vehicle, and production of concise and timely technical summaries. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 115R
Briefing Skills
1
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Produces the skills required to perform the duties and operations necessary to conduct briefings in the intelligence operations field. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah. May be repeated for a total of four credits toward graduation.

INTS 1160
Imagery Identification
6
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Teaches how to use aerial images to identify threat and operational equipment, including: naval vessels; fixed, swing, and rotary wing aircraft; engineer and decontamination equipment; truck models and functions; armored personnel carriers (APCs); missiles, rockets, and launch sites; communication and radar sites; artillery and artillery related equipment; and tanks and armored recovery vehicles (ARVs). Teaches how to identify from aerial imagery organizations and activity in relation to the Ground Order of Battle (GOB). This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1170
Symbology
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Teaches the skills necessary to translate incoming message traffic into military symbols. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1180
Intelligence Preparation of the Battlefield
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Identifies characteristics of the modern battlefield. Analyzes how the operational environment of the battlefield can affect friendly and threat operations. Defines the operational environment, considers the effects of weather and terrain, evaluates threat, and determines potential threat courses of action. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1190
Introduction to Communications for Intelligence Operations
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Tests basic oral communication in English for non-native speakers. Practices the fundamentals of oral communications in interpersonal, small-group, and large-group situations in the field of intelligence operations. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.
INTS 1200
Records Management
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Introduces the procedures, regulations, and forms used to accurately account for and manage an organization’s records and funds. Provides an opportunity to practice skills as custodians in a simulated large agency operating environment. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1210
Counterintelligence Investigations II
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Analyzes the collection, evaluation, and use of information to produce justifiable conclusions in support of the counterintelligence mission. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1220
Intelligence Surveillance and Reconnaissance (ISR)
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Teaches the Intelligence, Surveillance, and Reconnaissance (ISR) process across the scope of military operations from Joint Task Force level to Battalion level. Identifies the functions of the ISR process and its relationship to decision making. Requires development of an ISR plan, dissemination of information, and implementation of the plan. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1230
Targeting
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Examines the targeting process across the scope of intelligence operations. Introduces the Decide, Detect, Deliver, and Assess (D3A) methodology of targeting. Assesses the functions associated with the D3A methodology and how these functions interact with the decision-making process. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1240
Cellular Communication Fundamentals
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Teaches cellular technologies used around the world to deploy enhanced wireless capabilities. Covers the evolution of cellular capabilities to current protocols and standards. Provides a comprehensive overview of the options available in handling voice and data transmitted through wireless technologies. Explores variations among Frequency Division Multiple Access (FDMA), Time Division Multiple Access (TDMA), Code Division Multiple Access (CDMA), and Global System for Mobile communications (GSM). This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1310
Personal Identification methods in Battlefield Forensics
2
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Explains the methods used to identify individuals based on evidence collected at an incident scene in a battlefield environment. Emphasizes the identification, collection, and preservation of biological evidence for criminal investigations and legal procedures. Examines specific topics including: fingerprints, facial recognition, bloodstain analysis, and biometrics. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1410
Battlefield Forensic Investigations I
4
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Examines battlefield forensic investigation procedures and techniques. Emphasizes incident scene management and the identification, collection, and preservation of material evidence related to the manufacture and use of improvised explosive devices (IEDs). This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 1420
Battlefield Forensic Investigations II
4
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Explores the technical aspects of the collection and preservation of physical evidence from a battlefield environment. Emphasizes the processes involved in identifying persons assembling improvised explosive devices (IEDs), and the tactics and techniques used in the employment of those devices. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 2000
Collection Operations
4
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Teaches source collection operations in the operational cycle, including: collection planning, identifying, assessing, recruiting, training, tasking, interviewing, and providing source operations support. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 2020
Force Protection Operations and Support
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Teaches how to assimilate, analyze, and distribute multidiscipline counterintelligence products in support of tactical force protection. Explores specific areas of interest, to include counterintelligence operations in a deployed environment and current threat assessment technology. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 2030
Combating Terrorism
3
* Prerequisite(s): Acceptance into the Intelligence Studies Program

Teaches the history and development of terrorism. Includes recognizing the phases of a terrorist incident and how to understand a terrorist group’s structure, degree of support, and scope of operations. Teaches use of basic analytical tools available to combat terrorism. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.
INTS 2040 Interrogation and Interview Techniques 3
  * Prerequisite(s): Acceptance into the Intelligence Studies Program

Describes how to prepare for and question a source, collect all information of intelligence value, and report this information in the proper format. Identifies appropriate approach and questioning techniques, effective listening and note-taking methods, source screening procedures, and proper exploitation phases to collect intelligence information. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 2090 Automated Intelligence Systems 3
  * Prerequisite(s): Acceptance into the Intelligence Studies Program

Explores the use of automated intelligence systems in the field of intelligence operations. Assesses the basic system operations and conventions. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 2100 Intermediate Remote Sensing 3
  * Prerequisite(s): Acceptance into the Intelligence Studies Program

Applies knowledge of intelligence operations and how they use observed activity in the analysis of hardcopy and softcopy imagery. Utilizes imagery databases to provide organizations with accurate and timely reports, intelligence briefs, and assessments based on given scenarios and Priority Intelligence Requirements (PIRs). This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 211R Military Decision Making Process 3
  * Prerequisite(s): Acceptance into the Intelligence Studies Program

Assesses the mission analysis and the military decision-making process. Reviews situation analysis, problem analysis, and decision analysis. Examines the relationship between the decision maker and the decision environment. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah. May be repeated for a total of nine credits toward graduation.

INTS 2120 Intermediate Imagery Analysis Techniques 3
  * Prerequisite(s): Acceptance into the Intelligence Studies Program

Develops ability to apply photogrammetry techniques, equipment identification techniques, and softcopy and hardcopy imagery manipulation techniques to produce accurate imagery analyses and activity assessments. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 2140 Reporting of Intelligence Data II 3
  * Prerequisite(s): Acceptance into the Intelligence Studies Program

Teaches skills for the preparation of intelligence reports using pertinent information to satisfy the appropriate requirements. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 215R Briefing Skills II 3
  * Prerequisite(s): Acceptance into the Intelligence Studies Program

Demonstrates advanced preparation and delivery of briefings in the intelligence operations field. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah. May be repeated for a total of nine credits toward graduation.

INTS 2200 Reporting of Intelligence Data III 3
  * Prerequisite(s): Acceptance into the Intelligence Studies Program

Examines tactical human intelligence (HUMINT) issues for the advanced intelligence operations practitioner maintaining a HUMINT-specific occupational specialty. Teaches how to plan and prepare timely and effective intelligence reports in both urban and rural environments. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 2210 Counterintelligence Investigations III 3
  * Prerequisite(s): Acceptance into the Intelligence Studies Program

Focuses on how to understand the objectives, apply the procedures, and produce the reports used in advanced counterintelligence investigations. Expands knowledge and abilities in the planning, communicating, operating, credentialing, and investigating processes related to advanced counterintelligence investigations. Designed for the tactical human intelligence (HUMINT) practitioner. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.
INTS 2250
Analytical Process and Product II
3
*Prerequisite(s): Acceptance into the Intelligence Studies Program
Explores the tactical human intelligence (HUMINT) field. Teaches the preparation of analytical tools to assess a combat environment. Analyzes conventional and unconventional threat forces, various types of organizations, and associated weapons and equipment, as well as the tactics, techniques, and procedures of groups or forces identified as posing a threat to U.S. interests. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 2260
Interrogation and Interviewing Techniques II
3
*Prerequisite(s): Acceptance into the Intelligence Studies Program
Provides advanced preparation for questioning a human intelligence source and to collect and report information that is of intelligence value. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 2410
Management of Intelligence and Counterintelligence Operations I
4
*Prerequisite(s): Acceptance into the Intelligence Studies Program
Studies the organizational management of intelligence and counterintelligence operations. Examines the theoretical and practical perspectives of managing increasing levels of responsibility, with emphasis on problem-solving and decision-making processes and on the role of the leader. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

INTS 2420
Management of Intelligence and Counterintelligence Operations II
4
*Prerequisite(s): Acceptance into the Intelligence Studies Program
Explores the managerial challenges related to the multidiscipline role in intelligence and counterintelligence operations. Emphasizes the assessment of external and internal environments, strategic initiatives, and communication techniques, and the allocation and coordination of personnel and resources. This course is limited to students participating in the Utah National Guard’s (UNG) Military Intelligence Education Program at Camp Williams in Bluffdale, Utah.

Integrated Studies (IS)

IS 2000
Knowledge Integrated
3
Introduces questions or problems whose answers or solutions require the integration of ideas and disciplines. Focuses on ideas from a variety of cultural perspectives. Covers how important thinkers through history have approached difficult questions in ways that integrated disciplines. Provides the opportunity to complete written assignments based on research.

IS 300R
Introductory Topics in Integrated Studies
3
*Prerequisite(s): PHIL 2050 or 205H or 205G and (ENGL 2010 or 201H) and University Advanced Standing
Introduces a variety of topics crossing disciplines in science, religion, philosophy, history, literature, business, technology and the arts. Topics vary from semester to semester, but course remains modular in structure. Research and writing intensive. Requires final research paper. Involves writing across the curriculum. May be repeated for a maximum of 12 credits toward graduation.

IS 350R
Topics in Integrated Studies
3
*Prerequisite(s): PHIL 2050 or 205H or 205G and (ENGL 2010 or 201H) and University Advanced Standing
Examines a particular interdisciplinary topic; topics vary from semester to semester. Presents topics that cross one or more fields of academic specialty from the arts and sciences. Includes lecture, reading, discussion and research. Research and writing intensive, requires final research paper. May be repeated for a maximum of 12 credits toward graduation.

IS 481R
Internship
1 to 9
Provides supervised, practical, and professional experience at the upper-division level in preparation for a variety of careers. Develops skills relevant to the professional workforce and presents interdisciplinary evaluative and reflective exercises of the experience. Content will vary from internship to internship. May be repeated for a maximum of 9 credits toward graduation.

IS 4980
Integrated Studies Capstone I WE
3
*Prerequisite(s): IS 300R or IS 350R; Junior or Senior Standing in the Integrated Studies bachelor degree; and University Advanced Standing
Focuses on a major research paper integrating the student's two emphases. Addresses theoretical and practical problems associated with research and writing that combine disciplines. Includes work with a committee throughout the semester. Taken first semester in the two-semester capstone sequence.

IS 4990
Integrated Studies Capstone II WE
3
*Prerequisite(s): IS 4980 and University Advanced Standing
Focuses on a major research paper (senior thesis) integrating the student's two or more emphases. Addresses theoretical and practical problems associated with research and writing that combine disciplines. Includes work with a committee throughout the semester, which must approve the written thesis. Requires the student to orally present the thesis in a formal defense. Taken second semester in a two-semester capstone sequence.

Information Technology (IT)

IT 1200
Scripting for Administrators
3
*Prerequisite(s): MAT 1010 or higher; INFO 1120 recommended
Introduces the fundamentals of script design and implementation with an emphasis on the automation of administrative tasks. Covers modular script design and the use of file input and output. Emphasizes interaction of a script with other scripts, utilities, and the operating system to form more complex systems. Manipulates values of variables (both numbers and strings). Introduces simple GUI interfaces. Lab access fee of $45 applies.

IT 1510
Introduction to System Administration--Linux/UNIX
3
*Prerequisite(s): INFO 1120 recommended
Introduces administering Linux/UNIX Operating Systems including managing of software and services, configuration of kernel modules, network parameters, storage, cloud and virtualization technologies. Explores OS/software installation, managing daemons, user creation, file management, permissions, authentication, troubleshooting, system properties and processes, automation, scripting, orchestration, and security/server best practices. Lab access fee of $45 for computers applies.
IT 1600  
Computer Architecture and Systems Software  
3  
* Prerequisite(s): INFO 1120 recommended

Provides a thorough grounding in computer hardware, system software, and contemporary information system architecture. Examines hardware structure, operating systems theory, and systems software as part of a technical foundation for enterprise systems and IT infrastructure procurement and management. Lab access fee of $45 for computers applies. Canvas Course Mats $153/TSOut applies.

IT 1700  
Cybersecurity Essentials  
3  
For non-Information Technology and non-Information Systems majors. Introduces cybersecurity and its role in society in a nontechnical way. Explores cybersecurity topics, including protecting accounts, securing data, and avoiding phishing scams. Discusses current hacking and cybersecurity events. Identifies best practices for personal cybersecurity. Provides basic introduction to cybersecurity tools. Lab access fee of $45 applies.

IT 2400  
Voice and Data Cabling Fundamentals  
3  
* Prerequisite(s): INFO 1120 or INFO 1200 or CS 1030 or CS 1400

For students interested in the physical aspects of voice and data network cabling and installation. Focuses on cabling issues related to data and voice connections and provides an understanding of the industry and its worldwide standards. Covers types of media and cabling, physical and logical networks, as well as signal transmission. Focuses on best practices and safety using copper and fiber-optic cabling. Requires students to install a complete cable infrastructure for a simulated telecommunications room. Enforces industry and worldwide standards. Requires a community project and portfolio based on voice/data cabling skills. Lab access fee of $45 for computers applies.

IT 2530  
Introduction to System Administration--Windows Client  
3  
* Prerequisite(s): IT 1600

Introduces operation management of operating systems using Microsoft Windows. Introduces installation methods and troubleshooting, hardware device installation and management, storage management, disaster recovery planning and management. Aids the student in the development, understanding, and working knowledge of the Windows networking framework including peer-to-peer, workgroups, user profiles, domains, NTFS, and share-level permissions. Lab access fee of $45 for computers applies.

IT 2600  
Data Communication Fundamentals  
3  
* Prerequisite(s): INFO 1120 recommended or IT 1600 recommended or CS 1400 recommended

Provides an in-depth knowledge of data communications and enterprise networking including networking and telecommunications technologies, hardware, and software. Emphasizes underlying technologies and protocols. Design topics include wired and wireless architectures; topologies, models, standards and protocols; and operation of bridges, routers, switches, and gateways. Includes lab assignments covering TCP/IP implementations. May be delivered hybrid. Lab access fee of $45 for computers applies.

IT 2700  
Information Security Fundamentals  
3  
* Prerequisite(s): IT 2600 or CS 2600; (IT 1600 recommended)

Explores introductory information and cybersecurity concepts; security technologies, methodologies, and tools. Topics include security models, risk assessment, threat analysis, attack types, encryption technologies, security implementation, access controls, business continuity, and security policies. Discusses current topics, trends, and career opportunities in information security. Includes lab assignments covering information security principles. Software fee of $18 applies. Lab access fee of $45 for computers applies. Canvas Course Mats $35/Cengage applies.

IT 2800  
Computer Forensic Fundamentals  
3  
* Prerequisite(s): INFO 1120 or IT 1600 or CS 1400 or CJ 1010

Explores procedures for identification, preservation, and extraction of electronic evidence. Emphasizes auditing and investigation of network and host system intrusions, analysis and documentation of information gathered, and preparation of expert testimonial evidence. Examines forensic tools and resources for system administrators and information system security officers. Includes ethics, law, policy, and standards concerning digital evidence. Requires lab experience and a research paper or project. Lab access fee of $45 for computers applies. Canvas Course Mats $35/Cengage applies.

IT 281R  
Internship  
1 to 4  
* Prerequisite(s): Department Approval

Provides opportunities to apply classroom theory on the job. Requires work as paid employees in a job that relates to their careers while enrolled at the university. Requires students to meet at least monthly with the Departmental Internship Coordinator. Requires completers to meet individually set goals. May be repeated for a maximum of three credits toward graduation. May be graded credit/no credit.

IT 290R  
Current Topics in Information Technology  
1 to 3  
* Prerequisite(s): Departmental Approval

Provides exposure to current and emerging information technologies. May be used to provide content to prepare students to take industry-recognized IT certification exams, such as CompTIA Linux+, CompTIA A+, Apple Certified Professional, Certified Fiber Optic Technician, IC3, CompTIA Network+, CompTIA CTP+, Access Data Certified Examiner, MCSA, Cisco CompTIA Security+, Certified Ethical Hacker, etc. Varies each semester. May be repeated for a maximum of 6 credits toward graduation. Lab access fee of $45 for computers applies.

IT 3350  
Intellectual Property and Cyber Law  
3  
* Prerequisite(s): ENGL 2010 and (INFO 1120 or CS 1030 or LEGL 3000) and University Advanced Standing

Explores the legal and policy issues associated with the Internet and cyberspace. Studies case law, statutes, regulations, and constitutional provisions that affect people and businesses interacting through computers and the Internet. Covers intellectual property (trademarks, copyrights, patents, trade secrets, and unfair competition) and examines legal requirements to create, register and protect intellectual property rights. Focuses on e-commerce, online contracts, cybercrimes, torts, and privacy issues pertaining to technology. Lab access fee of $45 for computers applies.
Course Descriptions

IT 3400
Data Cabling Signal Characteristics
3
* Prerequisite(s): INFO 1120 or INFO 1200 or CS 1030 or CS 1400 or MECH 1200

For EART/Mechatronics majors or students interested in the physical aspects of data network signal characteristics, cabling and installation for those signals. Focuses on cabling issues related to data and voice connections and provides an understanding of the industry and its worldwide standards. Covers types of media and cabling, physical and logical networks, as well as signal transmission. Focuses on best practices and safety using copper and fiber-optic cabling. Requires students to install a complete cable infrastructure for a simulated telecommunications room. Enforces industry and worldwide standards. Requires a community project and portfolio based on voice/ data cabling skills. Requires a research paper.

IT 3510
Advanced System Administration--Linux/UNIX
3
* Prerequisite(s): [(INFO 1200 or CS 1400) and IT 1510 and (IT 2600 or CS 2600) all with a grade of C- or higher within the past five years] and University Advanced Standing

Explores enterprise systems administration using the UNIX/Linux operating system. Students learn advanced administrative tasks including server installation, network configuration and user management, file management, network services deployment, server security, back up and recovery, Shell scripting, source compilation, performance monitoring and tuning, troubleshooting, and managing hardware and component changes. Requires a community project and portfolio based on advanced server management skills. Lab access fee of $45 for computers applies.

IT 3530
Advanced System Administration--Windows Server
3
* Prerequisite(s): [(INFO 1200 and IT 2530 and (IT 2600 or CS 2600) all with a grade of C- or higher within the past five years] and University Advanced Standing

Explores enterprise systems administration using the Microsoft Windows Server operating system. Students learn advanced administrative tasks including server installation; hardware change management; software application management; network configuration and user management; file management; printing; network services deployment; server security; back up and recovery; scripting; performance monitoring, tuning, and troubleshooting. Lab access fee of $45 for computers applies.

IT 3540
Mac OS and Server Support
3
* Prerequisite(s): [INFO 1200 and IT 1510 and (IT 2600 or CS 2600) all with a grade of C- or higher within the past five years] and University Advanced Standing

Provides an in-depth exploration of the Mac OS X, and provides the skills to troubleshoot and correct problems that may arise by users. Teaches installation and configuration of a Mac OS X Server. Involves implementing and maintaining a Mac server in a network, including file sharing, mail, web, and wikis. Software fee of $14 applies. Lab access fee of $45 for computers applies.

IT 3600
Internetworking and Router Management
3
* Prerequisite(s): [(INFO 1200 or CS 1400) and (IT 2600 or CS 2600) all with a grade of C- or higher within the past five years] and University Advanced Standing

Teaches the theory and implementation skills and techniques needed to configure, troubleshoot and support reliable TCP/IP internetworks. Discusses security and management issues. Offers the opportunity to build an internetwork with cables, network cards, and routers. Emphasizes the analysis and design of networks in organizations. Includes lab assignments covering TCP/IP implementations and router configurations. Lab access fee of $45 for computers applies.

IT 3650
Information Storage and Management
3
* Prerequisite(s): IT 1600, IT 2600, and University Advanced Standing

Describes challenges and solutions for data storage and data management, intelligent storage systems, and storage networking. Studies backup, recovery, and archive processes. Discusses business continuity, disaster recovery, storage security and virtualization, and managing and monitoring the storage infrastructure. Software fee of $192 applies. Lab access fee of $45 for computers applies.

IT 3670
Information Security--Network Defense and Countermeasures
3
* Prerequisite(s): IT 1510, IT 2700, (IT 3510 or IT 3530), and University Advanced Standing

Examines advanced information security concepts through an applied viewpoint. Extends the student's understanding of security issues through hands-on application of real-world techniques and use of current security software. Topics include legal/ethical issues, use of security tools, network reconnaissance, password/brute-force attacks, firewall configuration, HoneyPot deployment, intrusion analysis/detection, server hardening, and penetration testing. Guest lecturers provide insight into current trends in advanced security issues. Software fee of $18 applies. Lab access fee of $45 for computers applies.

IT 3750
Malware Reverse Engineering
3
* Prerequisite(s): [(CS 2370 and CS 3100) or (IT 2700)] and University Standing

Examines advanced techniques used in malware analysis. Focuses on static and dynamic analysis of unknown binaries utilizing reverse engineering tools and procedures. Explores advanced anti-malware analysis processes and anti-reverse engineering methods. Covers advanced obfuscation practices, such as employing packers, and anti-debugging processes.

IT 459R
Current Topics in Information Technology
3
* Prerequisite(s): (Junior Standing or Department Approval) and University Advanced Standing

Provides exposure to emerging technologies and topics of current interest in information technology. Varies each semester depending upon the changes in the information technology discipline or to address a focused area within the information technology discipline. May be repeated for a maximum of 9 credits toward graduation. Lab access fee of $45 for computers applies.
IT 4600  
Enterprise Network Architectures and Administration  
3  
*Prerequisite(s): IT 3600 and University Advanced Standing

Examines management of resources used in enterprise computing environments from a practical, applied viewpoint. Extends the student's understanding of these concepts through hands-on application of real-world network, server, and software management techniques and addresses the problems associated with providing a secure, stable, reliable enterprise computing infrastructure. Includes principles of IT enterprise architecture management, configuration, analysis, and troubleshooting of virtual servers; redundancy and failover; directory service integration, access control and security; uptime monitoring and notification; backup and recovery; Storage Area Networking; Cloud computing platform choices, functionality, cost, deployment, flexibility, and adaptability. Lab access fee of $45 for computers applies. Software fee of $118 applies.

IT 4700  
Enterprise Cybersecurity Management  
3  
*Prerequisite(s): IT 2700 and University Advanced Standing  
*Prerequisite(s) or Corequisite(s): INFO 3430

Provides perspective of key issues involved in IT activities across the organizational and technical security landscape. Examines management methodologies, staffing, and operational issues. Teaches use of financial analysis and decision-making methodologies to aid investment decisions at the operational, functional, and strategic levels. Illustrates use of risk assessment and contingency planning as applied to business continuity and disaster recovery strategies. Includes the use of Service Level Agreement for managing both internal and external relationships. Lab access fee of $45 for computers applies.

IT 4750  
Network Security and Operations Capstone  
3  
*Prerequisite(s): University Advanced Standing  
*Prerequisite(s) or Corequisite(s): IT 4700

Senior-level, capstone experience course. Enhances student cyber security knowledge with operational and business applications. Focuses on integrating cyber security principles as an organic part of an organization’s processes. Covers barriers to implementing security policy, building a business case for cyber security, and incorporating cyber security into project management and software life cycles. Requires student project presentations. Lab access fee of $45 for computers applies.

IT 4760  
Case Studies in Cyber Security  
3  
*Prerequisite(s): IT 2700 and University Advanced Standing

Discusses current trends and issues in cyber security. Updated regularly to reflect global events related to cyber security. Topics include data breaches, cyber warfare, emerging threats. Emphasis on the changing and transformative nature of cyber security threats, including geographical, institutional, and cultural evolution. Guest lecturers from industry will provide students with perspectives on the state of cyber security. Examines real-world examples of the application of cyber security principles and requires critical analysis of each case. Lab access fee of $45 for computers applies.

IT 4800  
Advanced Mobile Devices Forensics  
3  
*Prerequisite(s): IT 2800 and University Advanced Standing

Discusses devices that can store digital information such as cell phones, tablets, digital cameras/camcorders, thumb drives and memory cards. Focuses on lab investigations of one or more digital media through image acquisition, data analysis, and assembly of a final written report of findings. Provides opportunities to use multiple software tools in device acquisition and analysis. Covers processes and procedures through mock investigations. Lab access fee of $45 for computers applies.

IT 481R  
Internship  
1 to 8  
*Prerequisite(s): (IT 3510 or IT 3530 or IT 3540 or IT 3600 or IT 3700 or department approval) and University Advanced Standing

For Information Technology bachelor’s degree students. Provides opportunities to apply upper-division classroom theory while students work as employees in a job that relates to their careers. Meet periodically with a Departmental Internship Coordinator. Credit is determined by the number of hours a student works during the semester and completion of individually set goals that relate to the student’s selected emphasis. Prior written department chair approval is required to apply more than three credits toward a Bachelor of Science Degree in Information Technology. May be graded credit/no credit.

IT 4850  
Digital Forensics Investigations  
3  
*Prerequisite(s): IT 2800 and University Advanced Standing

Is a senior capstone course for students in the Computer Forensics emphasis. Covers one or more investigations from start to finish. Integrates knowledge and skills from previous CJ, FSCI, and IT courses in this culminating experience. Lab access fee of $45 for computers applies.

IT 489R  
Undergraduate Research in Information Technology  
1 to 4  
*Prerequisite(s): Department approval and University Advanced Standing

Provides the opportunity to conduct research under the mentorship of a faculty member. Practices the theoretical knowledge gained in prior major courses. Creates a significant intellectual or creative product that is characteristic of the Information Technology discipline and worthy of communication to a broader audience. May be repeated for a maximum of 6 credits toward graduation.

IT 497R  
Independent Study  
1 to 3  
*Prerequisite(s): Department chair approval and University Advanced Standing

For bachelor degree students and other interested persons. Offers independent study as directed in reading, in individual projects, at the discretion and approval of the department chairperson. May be repeated for a maximum of 9 credits toward graduation.

IT 6300  
Principles of Cybersecurity  
3  
*Prerequisite(s): Acceptance into Graduate Certificate or Master of Science in Cybersecurity or Departmental Approval

Provides foundational knowledge of cybersecurity for graduate-level studies. Covers information security theories, terminology, and implementation. Includes networking and system fundamentals, cryptography, malware, authentication, authorization, access control, physical security, attacker profiles, appropriate threat responses, and the human elements of cybersecurity. Introduces multiple aspects of cybersecurity and various career paths within the field.

IT 497R  
Independent Study  
1 to 3  
*Prerequisite(s): Acceptance into Graduate Certificate or Master of Science in Cybersecurity or Departmental Approval

For bachelor degree students and other interested persons. Offers independent study as directed in reading, in individual projects, at the discretion and approval of the department chairperson. May be repeated for a maximum of 9 credits toward graduation.

IT 489R  
Undergraduate Research in Information Technology  
1 to 4  
*Prerequisite(s): Department approval and University Advanced Standing

Provides the opportunity to conduct research under the mentorship of a faculty member. Practices the theoretical knowledge gained in prior major courses. Creates a significant intellectual or creative product that is characteristic of the Information Technology discipline and worthy of communication to a broader audience. May be repeated for a maximum of 6 credits toward graduation.

IT 497R  
Independent Study  
1 to 3  
*Prerequisite(s): Department chair approval and University Advanced Standing

For bachelor degree students and other interested persons. Offers independent study as directed in reading, in individual projects, at the discretion and approval of the department chairperson. May be repeated for a maximum of 9 credits toward graduation.

IT 6300  
Principles of Cybersecurity  
3  
*Prerequisite(s): Acceptance into Graduate Certificate or Master of Science in Cybersecurity or Departmental Approval

Provides foundational knowledge of cybersecurity for graduate-level studies. Covers information security theories, terminology, and implementation. Includes networking and system fundamentals, cryptography, malware, authentication, authorization, access control, physical security, attacker profiles, appropriate threat responses, and the human elements of cybersecurity. Introduces multiple aspects of cybersecurity and various career paths within the field.
**Course Descriptions**

**IT 6350**  
Law/Ethics/Privacy in Cybersecurity  
3  
*Prerequisite(s): Acceptance into Graduate Certificate or Master of Science in Cybersecurity or Departmental Approval*  
Explores legal, ethical, and privacy issues as they apply to cybersecurity. Includes the legalities and ethics of hacking, corporate information security and use policies, and the government's role in cybersecurity. Emphasizes the roles and responsibilities of individual cybersecurity practitioners as well as corporate entities, including vulnerability disclosure and correcting software defects. Teaches privacy policies and regulations as they relate to cybersecurity and information systems.

**IT 6370**  
Penetration Testing and Vulnerability Assessment  
3  
*Prerequisite(s): Acceptance into Graduate Certificate or Master of Science in Cybersecurity or Departmental Approval*  
*Prerequisite(s) or Corequisite(s): IT 6300*  
Explores advanced topics in ethical hacking, penetration testing, vulnerability assessment, and other offensive network and system techniques. Teaches network scanning, target identification, application exploitation, antivirus evasion, physical security, social engineering, phishing, and privilege escalation. Contains hands-on labs providing experience from the perspective of an attacker.

**IT 6660**  
Advanced Network Forensics  
3  
*Prerequisite(s): Acceptance into Graduate Certificate or Master of Science in Cybersecurity or Departmental Approval*  
*Prerequisite(s) or Corequisite(s): IT 6300*  
Provides a standard methodology for conducting digital forensic analysis in a network environment. Teaches the importance of network forensic principles and development of an understanding of the technologies, protocols, laws, regulations, ethics, and procedures for network forensics. Incorporates demonstrations and laboratory exercises covering the identification, acquisition, authentication, preservation, analysis, and reporting of evidence for prosecution purposes.

**IT 6740**  
Advanced Network Defense and Countermeasures  
3  
*Prerequisite(s): Acceptance into Graduate Certificate or Master of Science in Cybersecurity or Departmental Approval*  
*Prerequisite(s) or Corequisite(s): IT 6300*  
Explores advanced topics in network defense, server hardening, vulnerability assessment, and mitigation scanning. Teaches students about network scanning, asset identification, Linux and Windows server hardening, anti-malware tools, intrusion detection, physical security, perimeter security, and cybersecurity awareness training. Contains hands-on labs providing experience from the perspective of a defender.

**IT 6750**  
Reverse Engineering and Malware Analysis  
3  
*Prerequisite(s): Acceptance into Graduate Certificate or Master of Science in Cybersecurity or Departmental Approval*  
*Prerequisite(s) or Corequisite(s): IT 6300*  
Explores the analysis tools and techniques for identifying malicious programs and recovering compromised operating systems. Provides a standard methodology for reverse engineering and eradicating malware. Includes setting up isolated malware labs and utilizing a selected set of forensic tools, such as system and network monitoring utilities, disassemblers, and debuggers for analyzing malware characteristics and the impact that malware may have on compromised systems.

**IT 6760**  
Case Studies in Cybersecurity  
3  
*Prerequisite(s): Acceptance into Graduate Certificate or Master of Science in Cybersecurity or Departmental Approval*  
*Prerequisite(s) or Corequisite(s): IT 6300*  
Discusses current trends and issues in cybersecurity. Reflects current global events related to cybersecurity. Includes data breaches, cyber warfare, and emerging threats. Emphasizes the changing and transformative nature of cybersecurity threats, including geographical, institutional, and cultural evolution. Provides guest lecturers from industry with perspectives on the state of cybersecurity. Examines real-world examples of the application of cybersecurity principles and requires critical analysis of each case.

**IT 6770**  
Cybersecurity Management  
3  
*Prerequisite(s): IT 6300 or Departmental approval*  
Teaches management skills applicable to cybersecurity. Includes governance models, business continuity, disaster recovery, risk management, organizational security, cybersecurity life cycle management, and interactions between information technology and business units. Focuses on policies, procedures, and guidelines based on industry and government standards to fulfill legal, regulatory, and operational requirements.

**IT 6780**  
Secure Coding  
3  
*Prerequisite(s): IT 6300 or departmental approval*  
Focuses on fundamentals of secure coding and current topics in application security. Includes the implementation of secure development lifecycle principles, identifying and mitigating issues in existing applications, and modern security issues. Covers the most frequently encountered application security risks and how to address each of them. Includes web applications, mobile applications, and traditional desktop applications.

**IT 6900**  
Cybersecurity Capstone  
3  
*Prerequisite(s): IT 6330, IT 6350, IT 6370, IT 6740, and IT 6770*  
Provides culmination of cybersecurity in a self-directed research or practical project that showcases student's mastery of cybersecurity topics. Provides an opportunity to conduct research and/or implement systems that incorporate topics from previous courses. Requires students to present their work at the end of the semester.

**Japanese (JPNS)**

**JPNS 1010**  
Beginning Japanese I  
4  
Offers an introduction to basic Japanese. Uses various methods of instruction that focus on the development of functional competence in listening, speaking, reading, and writing. Provides comprehensive explanations of basic Japanese grammar along with structural practice for building language accuracy. Lab access fee of $10 applies.
JPNS 1020  
Beginning Japanese II  
4  
* Prerequisite(s): Students need equivalent knowledge of JPNS 1010  
Offers a continuation of basic Japanese. Uses various methods of instruction that focus on the development of functional competence in listening, speaking, reading, and writing. Provides comprehensive explanations of basic Japanese grammar along with structural practice for building language accuracy. Lab access fee of $10 applies.

JPNS 115R  
Japanese Conversation I  
1  
Offers novice Japanese speakers opportunities to enhance their speaking proficiency in the target language by focusing on oral verbal production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, and sharpen listening comprehension for natural conversational flow. Contrasts with all other first year courses which must strive to produce mastery of the whole range of language acquisition components, including writing, grammar, etc. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of speech opportunities and defusing concern for such matters as spelling, etc. Increases mastery of lexical items through increased frequency of oral usage. May be repeated for a maximum of 3 credits toward graduation.

JPNS 1500  
The Art of Japanese Calligraphy  
2  
Introduces the origin of the art of calligraphy, the reasons why calligraphy developed and became so popular in Japan, works done by famous calligraphers, how to handle a brush and India ink, and how to write letters with a brush. Demonstrates the proper usage of the brush, correct stroke orders, and develops the skills of writing letters (start from level 1 - easy to level 8 - difficult) with a brush.

JPNS 2010  
Intermediate Japanese I  
4  
* Prerequisite(s): Students need equivalent knowledge of JPNS 1020  
Offers a continuation of basic Japanese. Reviews and builds additional skills from 1000-level language courses. Uses various methods of instruction that focus on the development of functional competence in listening, speaking, reading, and writing. Introduces authentic texts and provides discussions based on reading. Provides comprehensive explanations of basic Japanese grammar along with structural practice for building language accuracy. Lab access fee of $10 applies.

JPNS 202G  
Intermediate Japanese II  
4  
* Prerequisite(s): Students need equivalent knowledge of JPNS 2010  
Reviews and builds further language skills upon the grammar, reading, writing (including Kanji knowledge), and conversation skills learned in the previous JPNS 1010, 1020, and 2010. Introduces reading of a variety of texts in Japanese. Lab access fee of $10 applies.

JPNS 2110  
Conversational Japanese  
3  
* Prerequisite(s): Students need equivalent knowledge of JPNS 1020  
Emphasizes conversation in real-life situations that may be encountered in Japan. Focuses on vocabulary and structures. Introduces a variety of readings and multimedia materials and promotes oral proficiency.

JPNS 215R  
Japanese Conversation II  
1  
* Prerequisite(s): Students should have equivalent knowledge of JPNS 1020  
Offers lower division / novice Japanese speakers opportunities to enhance their speaking proficiency in the target language by focusing on oral verbal production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, sharpen listening comprehension, and develop conversational strategies such as circumlocution and managing a conversation with useful expressions for starting a conversation, gaining time to think, helping the other speaker, seeking agreement, etc. Contrasts with all other first year courses which must strive to produce mastery of the whole range of language acquisition components, including writing, grammar, etc. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of speech opportunities and defusing concern for such matters as spelling, etc. Increases mastery of lexical items through increased frequency of oral usage. May be repeated for a maximum of 3 credits toward graduation.

JPNS 3050  
Advanced Japanese  
3  
* Prerequisite(s): It is recommended that students have passed JPNS 202G, have had one year residency in Japan, or instructor approval  
For non-native Japanese speakers who have attained basic mastery of Japanese and some Kanji reading skills. Focuses on the development of Japanese language skills with emphasis on grammar review, reading, and writing. Introduces Japanese culture and literature. Lab access fee of $10 applies.

JPNS 315R  
Advanced Japanese Conversation  
1  
* Prerequisite(s): JPNS 202G or one year residency in a Japanese-speaking country, or instructor approval. University Advanced Standing.  
Offers speaking opportunities to middle or upper division Japanese learners to enhance their speaking proficiency in high level language by focusing on oral and verbal production. Improves authentic pronunciation, reduces grammatical and structural errors, and aids student progression beyond translation to natural production. May be repeated for a maximum of 3 credits toward graduation.

JPNS 3200  
Business Japanese  
3  
* Prerequisite(s): JPNS 3050 and University Advanced Standing  

JPNS 351G  
Japanese Culture and Civilization  
3  
* Prerequisite(s): JPNS 3050 and University Advanced Standing  
Explores chronologically the cultural formation and development of Japan. Examines and discusses the ethnic development and linguistic history from ancient to modern Japanese society. Analyzes and evaluates the differences and similarities between the Japanese and American cultures. Class instruction and presentations in Japanese. Fulfills the requirements for a G/ I course.
**Course Descriptions**

**JPNS 3520**  
Society and Business in Japan  
3  
* Prerequisite(s): JPNS 3050 and University Advanced Standing  
Builds upon the knowledge acquired in JPNS 3200, explores a multitude of aspects that contribute to Japanese national identity, focuses on Japan's complex vertical society, considers the intricacies of Japanese expressions and meanings relative to business and social applications, and studies the Japanese values and priority system. Also references Japan's national and global economic involvement and ways students can interface with it.

**Languages (LANG)**

**LANG 1000**  
English Literacy for Deaf Students  
5  
* Prerequisite(s): Deaf students fluent in American Sign Language  
Individually tailored English course taught entirely in ASL. Covers a variety of topics to prepare Deaf students for entrance to courses satisfying college English requirements. Topics of study, which vary by semester and by student need, include grammar, usage, reading comprehension and analysis, sentence construction, paragraph composition, and thematic approaches to writing. Uses students’ experience with American Sign Language and Deaf culture as the basis for instruction in English as a Second Language.

**LANG 281R**  
Language Internship  
1 to 8  
* Prerequisite(s): Department approval  
Provides supervised, practical, and professional experience for students preparing for careers related to languages. May be repeated for a maximum of eight credit hours. May be graded credit/no credit.

**LANG 291R**  
Independent Study  
1 to 3  
Designed primarily for students who will travel or live in a foreign country for a period of time and want to participate in an instructor-directed academic experience worthy of one to three hours of credit. May also be used similarly for directed studies, either on or off campus, dealing with a foreign language or culture.

**LANG 3000 (Cross-listed with: ANTH 3000)**  
LH  
Language and Culture  
3  
* Prerequisite(s): ENGL 1010 or ENGH 1005, (ANTH 101G or any foreign language 2010 course), Sophomore status, and University Advanced Standing  
Introduces cultural linguistics. Analyzes features of human languages that make possible semantic universality. Examines distinction between phonetic and phonemic units. Explores relationship between language and culture. Studies how language shapes culture and how culture shapes language.

**LANG 3010**  
Introduction to Linguistics  
3  
* Prerequisite(s): University Advanced Standing  
Focuses on achieving an understanding of language as a group of distinct yet complementary systems which interact to enable human communication, e.g., phonology, morphology, syntax, semantics, and pragmatics. Introduces implications of how languages reflect the cultures in which they are used, and discusses how language is learned, processed and interpreted and how languages change over time.

**LANG 312R (Cross-listed with: CINE 312R)**  
National Cinema History  
3  
* Prerequisite(s): ENGL 2010 and University Advanced Standing  
Covers a single national cinema tradition from the early days of film to the present. Explores representative films from a nation's cinematic chronology, considering major themes, movements, controversies, and artists. Considers social and political contexts as related to the national film output. May be repeated for a maximum of 9 credits toward graduation.

**LANG 4000**  
Methods of Teaching a Foreign Language  
3  
* Prerequisite(s): (Matriculation into any secondary education bachelor degree program or departmental approval) and University Advanced Standing  
For those who plan to certify to teach a foreign language. Addresses learning approaches, methods, evaluation procedures, text analysis, and other techniques for teaching and evaluating language learning. Includes discussion about professional organizations and other resources in the field. Taught entirely in English.

**LANG 450R**  
Translation Technology  
3  
* Prerequisite(s): (CHIN 3050 or FREN 3050 or GER 3050 or JPNS 3050 or PORT 3050 or RUS 3050 or SPAN 3050) and University Advanced Standing  
Provides the environment for students to acquire speed and proficiency in translation. Allows students to become proficient in the use of CAT (Computer Assisted Translation) tools. Prepares students and translators of any language to obtain an SDL Trados Certification. Includes class discussion, translation practice, analysis of translation practice and a student portfolio. May be repeated for a maximum of 9 credits toward graduation.

**LANG 481R**  
Language Internship  
1 to 8  
* Prerequisite(s): Departmental Approval and University Advanced Standing  
Provides students real-world, closely-supervised work experiences in positions directly related to their language studies. Includes a theoretical component such as, but not limited to, papers, projects, completion of reading assignments, tests, journaling, field studies, etc. Students desiring to do language internships must get department approval and must meet with a faculty sponsor to determine individual credit hours and requirements. May be repeated for a maximum of 8 credits toward graduation. May be graded credit/no credit.

**LANG 490R**  
Special Topics in Languages  
1 to 3  
* Prerequisite(s): Department Approval and University Advanced Standing  
Provides an opportunity to undertake a well-defined project or academically rigorous independent research in languages. May include formal instruction and collaboration with faculty and other students. May be repeated for a total of 6 credits toward graduation.

**Latin (LATN)**

**LATN 1010**  
Beginning Latin I  
4  
Allows students the opportunity to study Latin at the introductory level. Focuses primarily on Ancient Latin. Develops basic Latin reading skills with the help of grammar and translation exercises. Profoundly strengthens students’ general understanding of grammar, syntax, and word formation in any language, particularly Romance and Germanic languages (including English).
LATN 1020
Beginning Latin II
4
* Prerequisite(s): LATN 1010 or equivalent
Allows students the opportunity to continue to study Latin at the introductory level. Focuses primarily on Ancient Latin. Develops more advanced Latin reading skills, with the help of grammar and translation exercises. Study of Latin profoundly strengthens students’ general understanding of grammar, syntax, and word formation in any language, particularly Romance and Germanic languages (including English).

LATN 2010
Intermediate Latin I
4
* Prerequisite(s): LATN 1020 or equivalent
Studies Latin at the intermediate level. Develops more advanced reading skills through the translation of selected Classical Latin texts.

LATN 2020
Intermediate Latin II
4
* Prerequisite(s): LATN 2010 or equivalent
Continues study of Latin at the intermediate level. Develops more advanced reading skills through the translation of selected Classical Latin texts.

LATN 3010
Readings in Latin
3
* Prerequisite(s): (LATN 2020 or equivalent) and University Advanced Standing
Studies Latin beyond the intermediate level through translation of original Classical or Medieval Latin texts.

Legal Studies (LEGL)

LEGL 3000
Business Law
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005 or appropriate test scores) and University Advanced Standing
For School of Business students and others desiring a more complete understanding of business law at an honors level. Presents the American legal system, constitutional law, statutory law, common law, and administrative law and alternatives to courts. Discusses crimes, torts, negligence, contracts, negotiable instruments, and contractual relationships. Lab access fee of $25 for computers applies.

LEGL 300H
Business Law
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005 or appropriate test scores) and University Advanced Standing
For School of Business students and others desiring a more complete understanding of business law at an honors level. Presents the American legal system, constitutional law, statutory law, common law, and administrative law and alternatives to courts. Discusses crimes, torts, negligence, contracts, negotiable instruments, and contractual relationships. Lab access fee of $25 for computers applies.

LEGL 3130
Real Estate Principles and Finance
3
* Prerequisite(s): ENGL 1010 or ENGH 1005 or equivalent.
Includes the nature of real property, estates in land, transfer of real property rights, encumbrances, public restrictions, and contracts. Discusses ownership in real estate, settlement, taxation, real estate finance, math in real estate applications, and real estate valuation and appraisal. Lab access fee of $25 for computers applies.

LEGL 3140
Real Estate Law
3
* Prerequisite(s): ENGL 1010 or ENGH 1005 or equivalent.
Explores the legal implications of ownership of real property, including property management and new construction. Also covers federal and Utah-specific law, and Utah licensing testing and review. Lab access fee of $25 for computers applies.

LEGL 6000
Legal Challenges in Modern Business
1.5
* Prerequisite(s): Acceptance into the Woodbury School of Business MBA program
Examines contemporary issues in business law, with an emphasis in e-commerce and business in a digital environment. Studies secured transactions, business associations, investor protection, consumer protection and government regulation in an increasingly global and interconnected business environment. Recommended for business executives and managers.

Mathematics (MATH)

MATH 100R
Math Leap
1
Is part of UVU’s math placement process; for students who desire to review math topics in order to improve placement level before beginning a math course. Addresses unique strengths and weaknesses of students, by providing group problem solving activities along with an individual assessment and study plan for mastering target material. Requires mandatory class attendance and a minimum number of hours per week logged into a preparation module, with progress monitored by a mentor. May be repeated for a maximum of 4 credits toward graduation. May be graded credit/no credit.

MATH 1050
College Algebra
4
* Prerequisite(s): Within the past two years one of the following: MAT 1010 or MAT 1015 with a grade of C or better or appropriate math placement score.
Includes inequalities, functions and their graphs, polynomial and rational functions, exponential and logarithmic functions, systems of linear and nonlinear equations, matrices and determinants, arithmetic and geometric sequences, and the Binomial Theorem. May be delivered hybrid and/or online.

MATH 1055
College Algebra with Preliminaries
5
* Prerequisite(s): Within the past two years one of the following: MAT 1010 or MAT 1015 with a grade of C or better or appropriate math placement score.
Includes inequalities, functions and their graphs, polynomial and rational functions, exponential and logarithmic functions, systems of linear and nonlinear equations, matrices and determinants, arithmetic and geometric sequences, and the Binomial Theorem. May be delivered hybrid and/or online.

MATH 1060
Trigonometry
3
* Prerequisite(s): Within the past two years: MATH 1050 or MATH 1055 with a grade of C or higher or appropriate math placement score.
Includes the unit circle and right triangle definitions of the trigonometric functions, graphing trigonometric functions, trigonometric identities, trigonometric equations, inverse trigonometric functions, the Law of Sines and the Law of Cosines, vectors, complex numbers, polar coordinates, and rotation of axes.
Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Type</th>
<th>Credit Hours</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1080</td>
<td>Precalculus</td>
<td>QL</td>
<td>5</td>
<td>Within the past two years, one of the following: MAT 1010 or MAT 1015 with a grade of C+ or better or an appropriate math placement score.</td>
</tr>
<tr>
<td>MATH 1090</td>
<td>College Algebra for Business</td>
<td>QL</td>
<td>3</td>
<td>Within the past two years, one of the following: MAT 1010 or MAT 1015 with a grade of C+ or better or appropriate math placement score. Uses linear, quadratic, power, polynomial, rational, exponential, logarithmic, and logistic functions to analyze business applications such as market equilibrium, rates of change, cost-benefit analysis, and inflation. Includes systems of linear and nonlinear equations and inequalities, matrices and matrix equations, sequences and series, and financial mathematics. Canvas Course Mats $90/McGraw applies.</td>
</tr>
<tr>
<td>MATH 1100</td>
<td>Survey of Calculus</td>
<td>QL</td>
<td>3</td>
<td>Within the past two years: MAT 1050 or MAT 1055 or MAT 1080 with a grade of C+ or better or appropriate math placement score. Provides a comprehensive survey of the basic concepts and techniques of differential and integral calculus. Covers topics from both single and multivariable calculus including limits, continuity, differentiation, partial differentiation, integration, single variable and multivariable optimization. Includes the derivatives and integrals of polynomial functions, rational functions, exponential functions, and logarithmic functions, and partial differentiation of multivariable versions of these same functions. Emphasizes applications to specific disciplines such as business, computer science, and the life sciences.</td>
</tr>
<tr>
<td>MATH 1210</td>
<td>Calculus I</td>
<td>QL</td>
<td>4</td>
<td>One of the following within the past two years (MATH 1050 or MATH 1055) and MATH 1060, each with a grade of C+ or higher; OR MATH 1080 with a grade of C+ or higher; OR appropriate placement by math placement test. Covers limits, continuity, differentiation, applications of differentiation, integration, and applications of integration, including derivatives and integrals of polynomial functions, rational functions, exponential functions, logarithmic functions, trigonometric functions, inverse trigonometric functions, and hyperbolic functions. Is a prerequisite for calculus-based sciences.</td>
</tr>
<tr>
<td>MATH 121H</td>
<td>Calculus I</td>
<td>QL</td>
<td>4</td>
<td>One of the following within the past two years: MATH 1210 or MATH 121H with a grade of C+ or higher; OR MATH 1080 with a grade of C+ or higher; OR appropriate placement by math placement test. Covers limits, continuity, differentiation, applications of differentiation, integration, and applications of integration, including derivatives and integrals of polynomial functions, rational functions, exponential functions, logarithmic functions, trigonometric functions, inverse trigonometric functions, and hyperbolic functions. Is a prerequisite for calculus-based sciences.</td>
</tr>
<tr>
<td>MATH 1220</td>
<td>Calculus II</td>
<td>QL</td>
<td>4</td>
<td>MATH 1210 or MATH 121H with a grade of C+ or higher; OR MATH 1080 with a grade of C+ or higher; OR appropriate placement by math placement test. Includes applications of integration, integration techniques, arc length, area of a surface of revolution, moments and centers of mass, sequences and series, and parametrization of curves and polar coordinates.</td>
</tr>
<tr>
<td>MATH 122H</td>
<td>Calculus II</td>
<td>QL</td>
<td>4</td>
<td>MATH 1210 or MATH 121H with a grade of C+ or higher; OR MATH 1080 with a grade of C+ or higher; OR appropriate placement by math placement test. Includes integration techniques, arc length, area of a surface of revolution, moments and centers of mass, sequences and series, parametrization of curves and polar coordinates. Is an honors course which requires a student project.</td>
</tr>
<tr>
<td>MATH 2000</td>
<td>Algebraic Reasoning with Modeling</td>
<td>QL</td>
<td>3</td>
<td>MATH 1050 or MAT 1055 or MAT 1015 with a grade of C+ or better or an appropriate math placement score. Presents the basic ideas of sets and functions in the context of and motivated by modeling bivariate data. Includes basic set theory such as unions, intersections, Venn diagrams, etc. Includes the basic ideas and the algebra of functions including polynomial, exponential, and logarithmic functions. Also includes some basic combinatorics and counting principles as well as arithmetic and geometric sequences. Culminates in a pictorial introduction to the basic ideas of calculus presented with minimal computation.</td>
</tr>
<tr>
<td>MATH 2010</td>
<td>Mathematics for Elementary Teachers I</td>
<td>QL</td>
<td>3</td>
<td>MATH 1050 or MAT 1055 or MAT 2000 with a grade of C+ or better or appropriate math placement score. Is for pre-elementary education majors. Includes problem solving, sets, numeration systems, arithmetic of whole numbers, integers, rational numbers, real numbers, elementary number theory, ratios, proportions, decimals, and percents.</td>
</tr>
<tr>
<td>MATH 2020</td>
<td>Mathematics for Elementary Teachers II</td>
<td>QL</td>
<td>3</td>
<td>MATH 2010 with a grade of C+ or better or appropriate math placement score. Is for pre-elementary education majors. Includes topics on probability, statistics, geometry and measurement.</td>
</tr>
<tr>
<td>MATH 2210</td>
<td>Calculus III</td>
<td>QL</td>
<td>4</td>
<td>MATH 1220 or MATH 122H with a grade of C+ or higher; OR MATH 1080 with a grade of C+ or higher; OR appropriate placement by math placement test. Includes vectors in 3-space, quadric surfaces, partial derivatives, gradient, Lagrange multipliers, multiple integrals, line integrals, Green's Theorem, surface integrals, the Divergence Theorem, and Stokes' Theorem.</td>
</tr>
<tr>
<td>MATH 221H</td>
<td>Calculus III</td>
<td>QL</td>
<td>4</td>
<td>MATH 1220 or MATH 122H with a grade of C+ or higher; OR MATH 1080 with a grade of C+ or higher; OR appropriate placement by math placement test. Includes vectors in 3-space, quadric surfaces, partial derivatives, gradient, Lagrange multipliers, multiple integrals, line integrals, Green's Theorem, surface integrals, the Divergence Theorem, and Stokes' Theorem. Is an honors course which includes a student project.</td>
</tr>
</tbody>
</table>
MATH 2250
Differential Equations and Linear Algebra
4
* Prerequisite(s): MATH 1220 or MATH 122H with a grade of C or higher
Is for engineering students. Includes separable equations, linear differential equations, differential operators and annihilators, variation of parameters, Laplace transforms, and systems of linear differential equations. Introduces basic concepts of linear algebra including matrices, Gaussian elimination, determinants, linear independence, and eigenvalues and eigenvectors.

MATH 2270
Linear Algebra
3
* Prerequisite(s): MATH 1210 or MATH 121H with a grade of C or higher
Includes matrices and systems of equations, determinants, vector spaces, linear transformations, orthogonality, and eigenvalues and eigenvectors.

MATH 2280
Ordinary Differential Equations
3
* Prerequisite(s): MATH 2210 or MATH 221H with a grade of C or higher

MATH 281R
Cooperative Work Experience
2 to 9
* Prerequisite(s): Approval of Cooperative Coordinator
Designed for mathematics majors. Provides paid work experiences in the student's major. Course content is individualized, with the student setting the objectives by consulting with a faculty coordinator and the on-the-job supervisor. Credit is determined by the number of hours the student works during the semester. Repeatable for a maximum of 16 credits toward graduation. May be graded credit/no credit.

MATH 290R
Topics in Mathematics
3 to 5
* Prerequisite(s): Departmental approval
Studies a chosen topic in mathematics; topic will vary depending upon student demand and course development needs. May be taken more than once for different topics and for a maximum of 6 credit hours counted toward graduation.

MATH 3000
History of Mathematics WE
3
* Prerequisite(s): MATH 2210 or MATH 221H with a grade of C or higher and University Advanced Standing
Provides a survey of the history of mathematics with a focus on the development of mathematical ideas in their historical context. Includes numeration systems, the mathematics of the ancient world, the development of algebra, geometry, and calculus, and the work of pivotal mathematicians.

MATH 3010
Methods of Secondary School Mathematics Teaching
3
* Prerequisite(s): MATH 2210 or MATH 221H with a grade of B- or higher and University Advanced Standing
Is for Mathematics Education Majors. Presents different methods of teaching mathematical ideas at the secondary school level. Includes classroom instruction, student presentations, and field experiences. Studies various techniques of assessment and classroom management.

MATH 3020
Computer Based Mathematics for Secondary School Mathematics Teachers
3
* Prerequisite(s): MATH 2210 and MATH 2270 each with a grade of C or higher and University Advanced Standing; MATH 2280 with a grade of C or higher is recommended
For Mathematics Education Majors. Presents one or more popular mathematical computer software packages. Includes mathematical problem solving and presentations of mathematical concepts using a computer as an aid. Introduces appropriate programming language.

MATH 3030
Algebra for Secondary Mathematics Teaching
3
* Prerequisite(s): MATH 1210 with a grade B- or higher and University Advanced Standing and Mathematics Department Adviser Approval
For Mathematics Education Majors: Includes the exploration of important conceptual underpinnings, common misconceptions and students' ways of thinking, appropriate use of technology, and instructional practices to support and assess the learning of algebra. Teaches algebra as an extension of number, operation, and quantity; various ideas of equivalence as it pertains to algebraic structures; patterns of change as covariation between quantities; connections between representations (tables, graphs, equations, geometric models, context); and the historical development of content and perspectives from diverse cultures. Focuses on deeper understanding of rational numbers, ratios and proportions, meaning and use of variables, functions (e.g., exponential, logarithmic, polynomials, rational, quadratic), and inverses.

MATH 3100
Foundations of Geometry
3
* Prerequisite(s): MATH 2270 with a grade of C or higher and MATH 2210 with a grade of C or higher and MATH 2280 with a grade of C or higher and University Advanced Standing
* Prerequisite(s) or Corequisite(s): MATH 2280
Introduces logic and mathematical proof. Offers an axiomatic development of Euclidean and non-Euclidean geometries.

MATH 3200
Foundations of Analysis
3
* Prerequisite(s): MATH 3100 with a grade of C or higher and MATH 2210 with a grade of C or higher and MATH 2280 with a grade of C or higher and MATH 2210 with a grade of C or higher
Covers material from beginning analysis or higher and MATH 2210 with a grade of C or higher and University Advanced Standing
* Prerequisite(s) or Corequisite(s): MATH 2280
Introduces logic and mathematical proof. Offers an axiomatic development of Euclidean and non-Euclidean geometries.

MATH 3210
Complex Variables
3
* Prerequisite(s): MATH 2210 or MATH 221H with a grade of C or higher and University Advanced Standing
Introduces complex analysis. Includes algebra of complex numbers, analytic functions, mapping properties of elementary functions, the Cauchy integral formula, complex series, residues, and conformal mapping.
Course Descriptions

MATH 3250
Introduction to Advanced Calculus WE
3
Prerequisite(s): MATH 2210 or MATH 221H with a grade of C or higher and MATH 2270 with a grade of C or higher and University Advanced Standing

MATH 3300
Foundations of Abstract Algebra
3
Prerequisite(s): MATH 3100 or MATH 3250 with a grade of C or higher and University Advanced Standing

MATH 3310
Discrete Mathematics
3
Prerequisite(s): MATH 1220 with a grade of C or higher and University Advanced Standing

MATH 3320
Graph Theory and its Applications
3
Prerequisite(s): MATH 2270 with a grade of C or higher and University Advanced Standing

MATH 3400
Partial Differential Equations
3
Prerequisite(s): MATH 2280 with a grade of C or higher and University Advanced Standing

MATH 3640
Introduction to Optimization
3
Prerequisite(s): MATH 2210 or MATH 221H and MATH 2270 with a grade of C or higher and University Advanced Standing; CS 1400 with a grade of C or higher is recommended.

MATH 3750
Financial Mathematics
3
Prerequisite(s): MATH 1220 or FIN 3100 each with a grade of C or higher and University Advanced Standing

MATH 4015
Actuarial Problems Laboratory
1
Prerequisite(s): STAT 4710 and University Advanced Standing

MATH 4025
Actuarial Problems Finance Laboratory
1
Prerequisite(s): MATH 3750 or Departmental Approval and University Advanced Standing

MATH 4030
Geometry for Secondary Mathematics Teaching
3
Prerequisite(s): Math 3100 with a grade C or higher and University Advanced Standing

MATH 4040
Statistics and Probability for Secondary Mathematics Teaching
3
Prerequisite(s): Math 1210 with a grade B- or higher and STAT 2040 with a grade C or higher and University Advanced Standing

MATH 4045
Numerical Algorithms and Special Topics
3
Prerequisite(s): MATH 2210 or MATH 221H and MATH 2270 with a grade of C or higher and University Advanced Standing

MATH 4100
Differential Geometry of Curves and Surfaces
3
Prerequisite(s): MATH 3250 with a grade of C or higher and University Advanced Standing

MATH 4110
Advanced Calculus I
3
Prerequisite(s): MATH 3250 with a grade of C or higher and University Advanced Standing

MATH 4120
Advanced Calculus II
3
Prerequisite(s): MATH 4210 with a grade of C or higher and University Advanced Standing

MATH 4150
Introduction to Dynamical Systems
3
Prerequisite(s): MATH 3250 with a grade of C or better, and University Advanced Standing

MATH 4210
Advanced Calculus I
3
Prerequisite(s): MATH 3250 with a grade of C or higher and University Advanced Standing

MATH 4220
Advanced Calculus II
3
Prerequisite(s): MATH 4210 with a grade of C or higher, and University Advanced Standing

MATH 4250
Introduction to Dynamical Systems
3
Prerequisite(s): MATH 3250 with a grade of C or higher and University Advanced Standing

MATH 4300
Introduction to Modern Algebra
3
Prerequisite(s): MATH 3100 with a grade of C or higher and University Advanced Standing

MATH 4310
Introduction to Modern Algebra
3
Prerequisite(s): MATH 3100 with a grade of C or higher and University Advanced Standing

MATH 4320
Introduction to Modern Algebra
3
Prerequisite(s): MATH 3100 with a grade of C or higher and University Advanced Standing

MATH 4330
Introduction to Modern Algebra
3
Prerequisite(s): MATH 3100 with a grade of C or higher and University Advanced Standing
MATH 4310 Introduction to Modern Algebra I 3
* Prerequisite(s): MATH 3250 with a grade of C or higher and University Advanced Standing
Provides a deeper treatment of topics in modern algebra. Covers direct products of groups and the classification of finite Abelian groups. Covers the theory of rings including ideals, factor rings, various kinds of integral domains, fields, and polynomial rings.

MATH 4320 Introduction to Modern Algebra II 3
* Prerequisite(s): MATH 4310 with a grade of C or higher and University Advanced Standing
Provides a deeper treatment of topics in the theory of groups, rings, and fields. Covers field extensions, algebraic extensions, finite fields, and Kronecker's Theorem. Includes applications to straightedge and compass geometric constructions. Covers other topics at the instructor's discretion which may include the Sylow Theorems, symmetry groups, and Galois Theory.

MATH 4330 Theory of Linear Algebra 3
* Prerequisite(s): MATH 3250 with a grade of C or higher and University Advanced Standing
Covers vector spaces, linear transformations and matrices, dual spaces, inner product spaces, orthogonality, bilinear forms, eigenvalues, eigenvectors and generalized eigenvectors, diagonalization, and Jordan and other canonical forms.

MATH 4340 Introduction to Number Theory 3
* Prerequisite(s): MATH 3250 with a grade of C or higher and University Advanced Standing
Covers divisibility, irreducibility and primality, linear Diophantine equations, Pell's equation, continued fractions, congruences, Euler's theorem, arithmetic functions, primitive roots, quadratic reciprocity.

MATH 4510 Introduction to Numerical Analysis I 3
* Prerequisite(s): MATH 2270, MATH 2280, and CS 1400, each with a grade of C or higher and University Advanced Standing
Includes numerical solutions of equations in one variable, numerical solutions of linear and nonlinear systems of equations, interpolations and polynomial approximation, and approximating eigenvalues and eigenvectors.

MATH 4620 Introduction to Numerical Analysis II 3
* Prerequisite(s): MATH 4610 with a grade of C or higher and University Advanced Standing
Introduction to numerical analysis II. Topics will include numerical differentiation and integration, numerical solutions of initial-value problems and boundary-value problems for ordinary differential equations, numerical.

MATH 4750 Life Contingencies 3
* Prerequisite(s): STAT 4710 with a grade of C or higher and University Advanced Standing
Includes survival models, Markov Chains, life insurance and annuities, and Poisson processes. Prepares students for the life contingencies portion of Exam M of the Society of Actuaries.

MATH 481R Internship in Mathematics 1 to 4
* Prerequisite(s): Instructor Approval and University Advanced Standing
For mathematics majors. Provides mathematics-related work experience in an industrial, commercial, or research environment. Internship credit may not be used in fulfilling the mathematics major course requirements. May be taken two times for a maximum of 6 credits toward graduation. May be graded credit/no credit.

MATH 489R Undergraduate Research in Mathematics 1 to 3
* Prerequisite(s): MATH 3250 with a grade of C or better, Departmental Approval, and University Advanced Standing
Allows research on a project determined by a faculty member and approved by the department chair. Emphasizes proof, modeling, or other activities associated with mathematical research. May be used as part of a senior project. May be Graded Credit/No Credit. May be repeated for a maximum of 3 credits toward graduation.

MATH 490R Topics in Mathematics 2 to 3
* Prerequisite(s): Departmental approval and University Advanced Standing
Studies a chosen topic in mathematics. The topic will vary depending upon student demand. Course may be taken more than once for different topics and for a maximum of 6 credit hours counted toward graduation.

MATH 4999 Mathematics Capstone WE 2
* Prerequisite(s): Instructor approval, departmental approval, and University Advanced Standing
Is for mathematics majors and is to be taken during the last semester before graduation. Reviews topics learned in the core undergraduate mathematics courses. Assesses student understanding through the Major Field Test. Provides an opportunity for senior mathematics majors to participate in mathematical research under the supervision of a faculty member. Offers a setting in which students prepare a research paper and give oral presentations that describe their research.

MATH 5510 General Topology 3
* Prerequisite(s): MATH 4510 or MATH 4210 with a grade of C or higher and University Advanced Standing
Reviews Calculus, Linear Algebra, Differential Equations, Geometry, Advanced Calculus, and Modern Algebra. May be graded credit/no credit.

MATH 6000 Mathematics Core Review 3
* Prerequisite(s): Department Approval
Reviews essential undergraduate mathematics topics learned in core undergraduate mathematics courses. Separation axioms, continuity, compactness, connectedness, metric spaces, product spaces, metrization and ordinals.

MATH 6100 Topics in Geometry and Topology 3
* Prerequisite(s): Matriculation into the Mathematics Graduate Program and approval of a faculty member
Introduces the fundamentals of general topology, including topological spaces, separation axioms, continuity, compactness, connectedness, metric spaces, product spaces, metrization and ordinals.

MATH 6700 Life Contingencies 3
* Prerequisite(s): STAT 4710 with a grade of C or higher and University Advanced Standing
Covers direct products of groups and the classification of finite Abelian groups. Covers the theory of rings including ideals, factor rings, various kinds of integral domains, fields, and polynomial rings.

MATH 7610 Topics in Modern Algebra II 3
* Prerequisite(s): Departmental Approval
Provides a deeper treatment of topics in the theory of modern algebra. Covers direct products of groups and the classification of finite Abelian groups. Covers the theory of rings including ideals, factor rings, various kinds of integral domains, fields, and polynomial rings.


**Course Descriptions**

**MATH 6210**  
**Real Analysis**  
3  
* Prerequisite(s): Matriculation into the Mathematics Education, M.S. program or Matriculation into the Mathematics Graduate Certificate program, or approval of graduate program director.  
Introduces students to fundamental analytic tools used across all of mathematics. Presents a proof based approach to analysis in Euclidean space and analysis in the general setting of metric spaces. Includes sequences, series, limits in Rn, metric spaces, topology, differentiation, and integration.

**MATH 6310**  
**Modern Algebra**  
3  
* Prerequisite(s): Matriculation into the Mathematics Education, M.S. program or Matriculation into the Mathematics Graduate Certificate program, or approval of graduate program director.  
Covers advanced topics from group, ring, and field theory.

**MATH 6330**  
**Advanced Linear Algebra**  
3  
* Prerequisite(s): Matriculation into the Mathematics Education, M.S. program or Matriculation into the Mathematics Graduate Certificate program, or approval of graduate program director.  
Presents a proof and computation based approach to the theory of vector spaces, including bases, dimension, linear transformations, rank-nullity theorem, dual spaces, inner products, and canonical forms.

**MATH 6350**  
**Introduction to Combinatorics**  
3  
* Prerequisite(s): Mathematics Endorsement 4, or instructor approval  
Enumerates permutations and combinations of sets and multi-sets, inclusion-exclusion, recurrence relations, generating functions, Polya theory, and combinatorial structures.

**MATH 6410**  
**Topics in Ordinary Differential Equations**  
3  
* Prerequisite(s): Matriculation into the Mathematics Education, M.S. program or Matriculation into the Mathematics Graduate Certificate program, or approval of graduate program director.  
Includes the theory of linear and nonlinear ordinary differential equations and dynamical systems; the initial-value problems and behavior of solutions; the existence, uniqueness, perturbations, continuous dependence of solution on initial conditions, and introduction of nonlinear dynamical systems with applications.

**MATH 6610**  
**Numerical Methods and Modeling**  
3  
* Prerequisite(s): Matriculation into the Mathematics Education, M.S. program or Matriculation into the Mathematics Graduate Certificate program, or approval of graduate program director.  
Investigates modelling and numerical topics. Investigates topics from college algebra, calculus, linear algebra, and differential equations from a theoretical as well as numerical perspective. Expounds on algorithms and modelling through software packages in a hands-on approach.

**MATH 6620**  
**Topics in Numerical Analysis**  
3  
* Prerequisite(s): Matriculation into the Mathematics Education, M.S. program or Matriculation into the Mathematics Graduate Certificate program, or approval of graduate program director.  
Develops a deeper practical and theoretical understanding of methods used to find approximate solutions to a variety of mathematical problems and of the relationships between these algorithms. Compares accuracy, efficiency, and stability of methods used to solve nonlinear equations and large systems of linear and nonlinear algebraic equations; ordinary and partial differential equations; and to perform numerical differentiation, integration, interpolation and more general approximation of functions. Provides experience programming and applying many of the central algorithms that have powered modern advances in math and the sciences.

**MATH 6700**  
**Applications of Mathematics**  
3  
* Prerequisite(s): Matriculation into the Mathematics Education, M.S. program or Matriculation into the Mathematics Graduate Certificate program, or approval of graduate program director.  
Introduces various areas of mathematics that can be applied to other fields such as the sciences, arts, industry, etc. Includes topics such as game theory, graph theory, knot theory, number theory, etc.

**Mathematics Developmental (MAT)**

**MAT 0920**  
**Math Fundamentals**  
3  
* Prerequisite(s): Appropriate placement by a placement exam (within two years).  
Designed for students requiring basic math review. Reviews basic operations with whole numbers and fractions. Includes basic operations involving decimals, percents, ratios, rates, and basic operations involving physical measurements. Lab access fee of $3 applies.

**MAT 0950**  
**Foundations for Algebra**  
4  
* Prerequisite(s): One of the following (within two years): MAT 0920 with a grade of C- or higher; or appropriate placement by a placement exam.  
Designed for students requiring basic math and pre algebra instruction. Covers basic operations for number systems up to and including real numbers. Includes fractions, ratios, proportions, decimals, exponents, roots, linear equations, and polynomial expressions. May be delivered online. Lab access fee of $3 applies.

**MAT 0980**  
**Beginning Algebra**  
5  
* Prerequisite(s): Appropriate placement (within two years) by a placement exam or a grade of C- or better in MAT 0920  
Focuses on building a conceptual understanding of the definitions and operations of algebraic expressions and equations. Introduces students to numerical and algebraic topics, including real numbers and sets; radicals; variables, expressions, and equations; linear equations and inequalities in one variable; tables, charts and graphs; linear equations and systems of linear equations in two variables; polynomials; and quadratic equations in two variables. Prepares students for function and graphing based mathematical reasoning of MAT 1010 (Intermediate Algebra) or MAT 1015 (Intermediate Algebra with Integrated Review). Lab access fee of $3 applies.
MAT 0990
Introductory Algebra

4

* Prerequisite(s): One of the following (within two years): MAT 0980 or MAT 0990 with a C- or higher; or appropriate placement by a placement exam.

For students who have completed a minimum of one year of high school algebra or who lack a thorough understanding of basic algebra principles. Teaches integers, solving equations, polynomial operations, factoring polynomials, systems of equations and graphs, rational expressions, roots, radicals, complex numbers, quadratic equations and the quadratic formula. Prepares students for MAT 1010, Intermediate Algebra. Lab access fee of $3 applies.

MAT 1010
Intermediate Algebra

4

* Prerequisite(s): One of the following (within two years): MAT 0980 or MAT 0990 with a grade of C- or higher; or appropriate placement by a placement exam.

Uses an in-depth function and graphing based approach to teach Intermediate Algebra and focuses on conceptual understanding as well as algebraic skill. Covers linear, polynomial, quadratic, exponential, logarithmic and rational, functions from algebraic and graphical perspectives. Extends students’ mathematical reasoning practice to a collegiate and academic approach in mathematical thinking. Prepares students for MAT 1030, STAT 1040, MATH 1050 and MATH 1090.

MAT 1015
Intermediate Algebra with Integrated Review

5

* Prerequisite(s): (within department time limits): MAT 0980 with a C- or higher or appropriate placement by a placement exam.

Reviews core concepts and skills in arithmetic and basic algebra. Uses an in-depth function and graphing based approach to teach Intermediate Algebra and focuses on conceptual understanding as well as algebraic skill. Covers linear, polynomial, quadratic, exponential, logarithmic and rational, functions from algebraic and graphical perspectives. Extends students’ mathematical reasoning practice to a collegiate and academic approach in mathematical thinking. Prepares students for MAT 1030, STAT 1040, MATH 1050 and MATH 1090.

MAT 101R
Individualized Mathematics Review

1

* Prerequisite(s): Any MAT or MATH course

Designed as a follow-up to MATH 100R for students who desire to make further progress in their math placement through individualized instruction. Includes a diagnostic test of mathematical knowledge base which is used to develop an individualized learning plan. Provides targeted intervention to increase foundational mathematics knowledge. May be Graded Credit/No Credit. May be repeated for a maximum of 3 credits.

MAT 1020
Numeracy

4

Uses real-life, scenario-based instruction where each mathematical concept is taught using small, useful, real-life mathematical scenarios. Uses a modeling approach to help students determine in which real-life scenario they would use which mathematical concept or skill for solving problems. Covers models of integers, fractions, decimals, percentages and percentage change, ratio and rate, basic descriptive statistics, charts, and graphs, linear growth, and exponential growth. Demonstrates mathematics as a tool for modeling specific real-life situations. Uses calculators, computer software, and the Internet, and that they are used as tools for understanding. Prepares students for MAT 1030, Quantitative Reasoning.

MAT 1030
Quantitative Reasoning

3

* Prerequisite(s): One of the following (within department time limits): MAT 1020 (preferred), or MAT1015 or MAT 1010 with a grade of C- or higher; or appropriate placement by a placement exam.

Teaches how to communicate, interpret, and analyze quantitative information found in the media and in everyday life to make sound personal, professional, and civic decisions. Covers the material at an honors level.

MAT 1110 (Cross-listed with: PHIL 1110)
Introduction to Mathematical Reasoning

3

* Prerequisite(s): One of the following (within department time limits): MAT 1010, MAT 1015, MAT 1030 or higher, or STAT 1040 or higher, with a grade of C- or higher.

Focuses on the ability to reason soundly and formulate arguments in mathematics, logic and philosophy. Covers how sound arguments and good reasoning methods allow us to effectively search for the truth regarding any mathematical or philosophical question. Covers the reasoning methods used in mathematics and the way the methods are applied outside of mathematics in areas such as language and the sciences. Describes how these methods are effective in producing mathematical knowledge and understanding as well as their epistemic shortcomings. Includes reasoning with propositional logic, sound argumentation, mathematical proof, visualization and diagrammatic reasoning, the role of rigor and intuition, and the scientific application of mathematics.

MAT 240R
Math Mentor Leadership Practicum

2

* Prerequisite(s): One of the following (within department time limits): MAT 1010, MAT 1015, MAT 1030, or MAT 1035 with a B+ or higher.

Provides the theoretical base and hands-on training in leadership and math mentoring techniques as well as an understanding of and ability to apply listening, teaching, and leadership competencies. Assists student leaders in further developing their own self-awareness, learning skills and strategies, and explores methods for facilitating these in others. Provides an avenue for goal development, fulfillment and performance among student leaders and the individuals they serve. Emphasizes building relationships with students, teaching life skills and learning strategies, and guiding students through the college experience. May be repeated for a maximum of 8 credits towards graduation.
Course Descriptions

Mechatronics Engineering Tech (MECH)

MECH 1010
Fundamentals of Mechatronics
3
Covers the fundamental skills and theory of the Mechatronics discipline. Covers integrated system design which includes electrical, mechanical, and microprocessor programming theory. Discusses the fundamentals of materials science, manufacturing processes, and the application of automation systems in a production environment. Course fee of $20 for materials applies. Lab access fee of $45 applies.

MECH 1200
Electronics in Automation Design
3
* Corequisite(s): MECH 1205
* Prerequisite(s) or Corequisite(s): MAT 1010
Teaches basic DC and AC electronics theory including voltage, current, resistance, reactance, and complex impedance as well as basic electronic components such as resistors, capacitors, and inductors. Includes the analysis of series, parallel, and complex circuits as well as troubleshooting and measurement techniques. Teaches principles of algebra and trigonometry which will be utilized for circuit analysis. Emphasizes the application of electronic theory and analysis in the design of automation systems. Course Lab fee of $40 for materials, lab applies.

MECH 1205
Electronics in Automation Design Laboratory
2
* Corequisite(s): MECH 1200
Applies basic DC and AC electronics theory including voltage, current, resistance, reactance, and impedance as well as basic electronic components such as resistors, capacitors, and inductors. Includes the analysis of series, parallel, and complex circuits as well as troubleshooting and measurement techniques. Presents the fundamentals of digital logic using combinational and sequential logic. Teaches number systems, binary arithmetic, logic gates, Boolean algebra, truth tables and logic simplification. Introduces computer architecture. Emphasizes the application of electronic theory and analysis in the design of automation systems. Lab access fee of $45 applies.

MECH 1300
Industrial Wiring for Mechatronic Systems
1
* Corequisite(s): MECH 1305
* Prerequisite(s) or Corequisite(s): MECH 1010
Covers National Electrical Code and International Electrical Code using electrical prints, installation methods, and system requirements in mechatronic systems. Covers the creation and use of electrical diagrams for design and troubleshooting. Lab access fee of $45 applies.

MECH 1305
Industrial Wiring for Mechatronic Systems Laboratory
2
* Corequisite(s): MECH 1300
* Prerequisite(s) or Corequisite(s): MECH 1010
Applies the use of National Electrical Code and International Electrical Code using electrical prints, installation methods, and system requirements in mechatronic systems. Explains how to create and use electrical diagrams for design and troubleshooting.

MECH 2200
Semiconductors in Mechatronic Systems
3
* Prerequisite(s): MECH 1200
* Corequisite(s): MECH 2205
Teaches the theory of semiconductor PN junctions and discrete semiconductors such as diodes, bipolar junction transistors, and MOSFET's applied to automation control. Also introduces the utilization of opto-isolators, triacs, and SCR's in controlling automation power devices. Course Lab fee of $25 for materials, lab applies.

MECH 2205
Semiconductors in Mechatronic Systems Laboratory
1
* Prerequisite(s): MECH 1200, MECH 1205
* Corequisite(s): MECH 2200
Applies the theory of semiconductor PN junctions and discrete semiconductors such as diodes, bipolar junction transistors, and MOSFET's applied to automation control. Introduces the utilization of opto-isolators, triacs, and SCR's in controlling automation power devices. Lab access fee of $45 applies.

MECH 2300
Microcontroller Architecture and Programming
3
* Corequisite(s): MECH 2305
* Prerequisite(s) or Corequisite(s): MECH 2200 and MECH 2205 or AET 2110 and AET 2115
Teaches computer architecture and the fundamentals of computer programming in C language. Uses an IDE to develop, compile and debug C code. Introduces structured top down design and program documentation. Teaches the organization of I/O ports including alternate functions. Utilizes microcontroller communications, functions and I/O methods to interface to sensors and actuators. Course Lab fee of $50 for materials, lab applies.

MECH 2305
Microcontroller Architecture and Programming Lab
2
* Prerequisite(s): MECH 1205
* Corequisite(s): MECH 2300
* Prerequisite(s) or Corequisite(s): MECH 2200 and MECH 2205 or AET 2110 and AET 2115
Applies computer architecture and the fundamentals of computer programming in C language. Uses an IDE to develop, compile and debug C code. Introduces structured top down design and program documentation. Teaches the organization of I/O ports including alternate functions. Utilizes microcontroller communications, functions and I/O methods to interface to sensors and actuators. Lab access fee of $45 applies.

MECH 2400
Mechanical Components
4
* Prerequisite(s): MECH 1010
Teaches students how to select, design, and analyze mechanical components that are used in manufacturing automation systems. Reviews and reinforces the concepts of the structure of metals, metals selection, and mechanical properties. Focuses on the selection of belt and chain drives, gear and gearbox selection, design of shafts, specification of rolling element bearings, and the use of threaded fasteners. Integrates the selection and design of mechanical components into a design project. Lab access fee of $45 applies.
MECH 2500
Introduction to PLCs in Mechatronic Design
2
* Prerequisite(s): MECH 1200, MECH 2300
* Corequisite(s): MECH 2505
Covers the theory and programming of industrial control systems and programmable logic controllers (PLC). Introduces PLC programming stressing Ladder Logic and PLC programming, troubleshooting, and maintenance. Covers connection of PLCs to external components. Presents the fundamentals of digital logic using ladder logic. Covers number systems and Boolean algebra. Course Lab fee of $15 for materials, lab applies. Software fee of $29 applies.

MECH 2505
Introduction to PLCs in Mechatronic Design Laboratory
2
* Prerequisite(s): MECH 1200, MECH 2300
* Corequisite(s): MECH 2500
Applies the theory and programming of industrial control systems and programmable logic controllers (PLC). Applies PLC programming stressing Ladder Logic and PLC programming, troubleshooting, and maintenance. Applies connection of PLCs to external components. Lab access fee of $45 applies.

MECH 2510
Fundamentals of Automation Controls
2
* Corequisite(s): MECH 2515
* Prerequisite(s) or Corequisite(s): MECH 2500
Covers how to select, install, and troubleshoot sensors in a manufacturing environment. Emphasizes the application of proximity sensors in automation equipment as well as the use of encoders to measure speed and position, pressure transducers, and the use of thermocouples and thermistors to measure temperature. Covers signal conditioning methods to interface sensors to microprocessors and PLC's. Course Lab fee of $20 for lab notebook, lab applies.

MECH 2515
Fundamentals of Automation Controls Laboratory
1
* Corequisite(s): MECH 2510
* Prerequisite(s) or Corequisite(s): MECH 2500
Applies methods for proper selection, installlation, and troubleshooting of sensors in a manufacturing environment. Emphasizes the application of proximity sensors in automation equipment as well as the use of encoders to measure speed and position, pressure transducers, and the use of thermocouples and thermistors to measure temperature. Utilizes signal conditioning methods to interface sensors to microprocessors and PLC's. Lab access fee of $45 applies.

MECH 2550
Advanced PLC Programming and Applications
2
* Prerequisite(s): MECH 2500
* Corequisite(s): MECH 2555
Covers the principles of program structure, subroutines, interrupts, debugging, and simplifying. Illustrates the measurement and scaling of analog signals. Covers networking principles such as Ethernet and serial. Course Lab fee of $15 for materials, lab applies. Software fee of $29 applies.

MECH 2555
Advanced PLC Programming and Applications Laboratory
2
* Prerequisite(s): MECH 2500
* Corequisite(s): MECH 2550
Applies the principles of program structure, subroutines, interrupts, debugging, and simplifying using a PLC. Applies the use of PLCs in the measurement and scaling of analog signals. Applies networking principles such as Ethernet and serial to communicate with a PLC. Lab access fee of $45 applies.

MECH 2600
Introduction to Fluid Power Systems
2
* Prerequisite(s): MECH 2400
* Corequisite(s): MECH 2605
Develops the concepts used to design, build, and control a fluid power system that is used in an industrial automation process. Covers the fundamental principles of fluid power. Course Lab fee of $15 for materials, lab applies. Lab access fee of $45 applies. Software fee of $50 applies.

MECH 2605
Introduction to Fluid Power Systems Laboratory
1
* Prerequisite(s): MECH 2400
* Corequisite(s): MECH 2600
Applies the concepts used to design, build, and control a fluid power system that is used in an industrial automation process. Applies the concepts used to design, build, and control a fluid power system that is used in an industrial automation process. Employ laboratory exercises to illustrate the selection and use of actuators, valves, and controls to sequentially control a process.

MECH 2700
Industrial Motor Control Mechatronic Systems
2
* Prerequisite(s): MECH 1300, MECH 1305
* Corequisite(s): MECH 2705
Covers installation, troubleshooting, preventive maintenance, and theory on DC/AC motors, generators, and associated industrial control circuitry. Discusses ladder logic, controls, sensors, motor starters, loads, and electronic devices used to control and protect DC/AC Machines. Describes three phase systems, transformers, and delta-wye connections. Introduces AC variable speed drives.

MECH 2705
Industrial Motor Control Mechatronic Systems Laboratory
2
* Prerequisite(s): MECH 1300, MECH 1305
* Corequisite(s): MECH 2700
Applies the principles of installation, troubleshooting, preventive maintenance, and theory on DC/AC motors, generators, and associated industrial control circuitry. Uses ladder logic, controls, sensors, motor starters, overloads, and electronic devices used to control and protect DC/AC Machines. Lab activities include the wiring of transformers, and three phase systems in both delta and wye configurations.

MECH 3060
Mechatronics Management
3
* Prerequisite(s): MECH 2550 and University Advanced Standing
Provides management principles, processes, and standards commonly used in manufacturing and other industries. Covers basic concepts in project management, operations management, quality management, and safety management. Familiarizes students with applicable software tools. Lab access fee of $45 applies.

MECH 3220
Motion Control for Mechatronic Systems
3
* Prerequisite(s): (MECH 2550 or AET 2270 or Department Approval) and University Advanced Standing
* Corequisite(s): MECH 3225
Presents the selection and application of AC and DC servo motors and how to control the speed and position in automation systems. Covers variable frequency drives and servo drives in automation system design. Applies algebra, trigonometry, integrals, and derivatives.Course Lab fee of $15 for materials, lab applies.

MECH 3225
Motion Control for Mechatronic Systems Laboratory
1
* Prerequisite(s): (MECH 2550 or AET 2270 or Department Approval) and University Advanced Standing
* Corequisite(s): MECH 3220
Applies the standards for the selection of AC and DC servo motors and the use of programming to control speed and position in automation systems. Implements variable frequency drives and servo drives in automation system design. Lab access fee of $45 applies.
MECH 3300  
Industrial Networks  
2  
* Prerequisite(s): MECH 3220, University Advanced Standing  
* Corequisite(s): MECH 3305  
Covers the principles of designing, configuring, integrating, and maintaining an industrial network. Covers the use of software to integrate PLC's, sensors, HMI's, computers, and smart devices into a manufacturing data management network. Course Lab fee of $25 for materials, lab applies. Software fee of $29 applies.

MECH 3305  
Industrial Networks Laboratory  
1  
* Prerequisite(s): MECH 3220 and University Advanced Standing  
* Corequisite(s): MECH 3300  
Applies the principles of designing, configuring, and integrating in maintaining an industrial network. Applies the use of software to integrate PLC's, sensors, HMI's, computers, and smart devices into a manufacturing data management network. Lab access fee of $45 applies.

MECH 3400  
Statics and Material Properties for Mechatronics  
4  
* Prerequisite(s): University Advanced Standing  
* Corequisite(s): MECH 3405  
Teaches the concept of forces as vectors, the equations of equilibrium, calculation of internal forces, and the calculation of centroids and area moments of inertia. Teaches how to calculate tensile and shear stress in machine components and compare the resultant forces to standard theories of failure using the principles of statics. Teaches algebra, trigonometry, and elementary calculus in terms of the application of statics.

MECH 3405  
Statics and Material Properties for Mechatronics Laboratory  
1  
* Prerequisite(s): University Advanced Standing  
* Corequisite(s): MECH 3400  
Applies the concept of forces as vectors, the equations of equilibrium, calculation of internal forces, and the calculation of centroids and area moments of inertia. Covers how to calculate tensile and shear stress in machine components and compare the resultant forces to standard theories of failure by using the principles of statics. Lab access fee of $45 applies.

MECH 3500  
Industrial Robots  
2  
* Prerequisite(s): AET 2250 and AET 2255, or MECH 2550 and MECH 2555, University Advanced Standing. It is also recommended that students in the AET program take AET 2270 and AET 2275  
* Corequisite(s): MECH 3505  
Covers the principles of industrial robotics, programming, and the application of vision systems using industry created curriculum. Course Lab fee of $11 for flat ribbon cable, lab applies. Lab access fee of $45 applies Software fee of $50 applies.

MECH 3505  
Industrial Robots Laboratory  
1  
* Prerequisite(s): AET 2250 and AET 2255, or MECH 2550 and MECH 2555, University Advanced Standing. It is also recommended that students in the AET program take AET 2270 and AET 2275  
* Corequisite(s): MECH 3500  
Applies the principles of industrial robotics, programming, and the application of vision systems using industrial robots. Lab access fee of $45 applies.

MECH 3570  
Design Analysis and Rapid Prototyping WE  
3  
* Prerequisite(s): MECH 3220 and University Advanced Standing  
Covers the fundamentals of geometric dimensioning and tolerancing based on the ASME Y14.5 standard. Explores how a design is affected by manufacturing tolerances and how to specify the fit of parts on a detail print. Emphasizes assembly analysis using SolidWorks Motion and rapid prototyping to verify the form, fit, and function of a design. Lab access fee of $45 applies.

MECH 3700  
CNC Machines in Mechatronic Design  
2  
* Prerequisite(s): MECH 3220, University Advanced Standing  
* Corequisite(s): MECH 3705  
Covers the application, programming, and maintenance of CNC machines. Emphasizes the integration of CNC machines into automation systems. Covers specifications, performance, interfacing with industrial robots, tooling, programming, and integrating the CNC machine into a factory system. Course lab fee of $35 for materials applies. Software fee of $29 applies.

MECH 3705  
CNC Machines in Mechatronic Design Laboratory  
1  
* Prerequisite(s): MECH 3220, University Advanced Standing  
* Corequisite(s): MECH 3700  
Applies the application, programming, and maintenance of CNC machines. Emphasizes the integration of CNC machines into automation systems. Applies specifications, performance, interfacing with industrial robots, tooling, programming, and integrating the CNC machine into a factory system. Lab access fee of $45 applies.

MECH 4300  
Capstone I  
1  
* Prerequisite(s): MECH 3220 and University Advanced Standing  
* Corequisite(s): MECH 4305  
Integrates the concepts of the Mechatronics Engineering Technology curriculum into a semester-long capstone proposal. Requires students to conceive, define, design, and document a capstone proposal. Course lab fee of $15 for equipment applies.

MECH 4305  
Capstone I Laboratory  
1  
* Prerequisite(s): MECH 3220 and MECH 3225, University Advanced Standing  
* Corequisite(s): MECH 4300  
Integrates the concepts of the Mechatronics Engineering Technology curriculum into a semester-long capstone proposal. Requires students to prototype and test key components of their capstone proposal. Lab access fee of $45 applies.

MECH 4400  
Polymers/Composites and Processes  
3  
* Prerequisite(s): MECH 3400, University Advanced Standing  
Teaches students the selection of polymers, design of polymer products and manufacturing processes associated with polymer based products. Also teaches types of composites and design of composite products. Course lab fee of $18 for supplies applies. Lab access fee of $45 applies.

MECH 4500  
Advanced Automation Controls  
3  
* Prerequisite(s): MECH 4300, University Advanced Standing  
* Corequisite(s): MECH 4505  
Introduces methods of advanced control of high speed components, analog controls, temperature, pressure, and time delay processes using digital and analog methods of control. Covers algebra, trigonometry, and basic applied calculus in the context of complex control systems. Course lab fee of $45 for equipment applies. Lab access fee of $45 applies.
MECH 4505
Advanced Automation Controls Laboratory
1
* Prerequisite(s): MECH 4300, University Advanced Standing
* Corequisite(s): MECH 4500
Integrates methods of advanced control of high speed components, analog controls, temperature, pressure, and time delay processes using digital and analog methods of control. Implements practical applications of the concepts discussed in the lecture portion of the class. Lab access fee of $45 applies.

MECH 4800
Capstone II WE
3
* Prerequisite(s): MECH 3570, MECH 4300 with a C- or better, University Advanced Standing
Builds on Capstone I and integrates project management into a semester-long capstone project. Requires students to construct, validate, document, and present their capstone project. Lab access fee of $45 applies. Software fee of $29 applies.

MECH 481R
Mechatronics Internship
1 to 3
* Prerequisite(s): Matriculation into Mechatronics Engineering Technology, Instructor Approval, and University Advanced Standing
Provides opportunity to use work experience to add to educational background and academic experience. A maximum of 6 credit hours may be counted towards graduation. May be graded credit/no credit.

MECH 490R
Topics in Mechatronics
3
* Prerequisite(s): University Advanced Standing
Covers a chosen topic in the mechatronics discipline. May be taken more than once for different topics and for a maximum of 6 credit hours toward graduation. Lab access fee of $45 applies.

* ME 3130
Kineatics
3
* Prerequisite(s): ENGR 2030, University Advanced Standing, and (Formal Acceptance into the Mechanical Engineering Program or Departmental Approval)
Covers the analysis of dynamic mechanisms including: relative motion of links in mechanisms; velocities and accelerations of machine parts; rolling contact; cams; and synthesis of mechanisms. Introduces computer-aided engineering techniques for mechanism analysis. Includes a design component. Lab access fee of $45 for computers applies.

ME 3140
Machine Design
3
* Prerequisite(s): ENGR 2140, ENGR 2160, University Advanced Standing, and (Formal Acceptance into the Mechanical Engineering Program or Departmental Approval)
Practices methods for static and dynamic stress and failure analysis for mechanical systems. Teaches how to create machine design models and free-body diagrams, calculate stress, estimate deflection, select an appropriate failure theory, and design to prevent failure. Gives experience using commercial FEA software to create models of simple structures and machine components. Includes a design component. Lab access fee of $45 for computers applies. Canvas Course Mats $78/McGraw applies.

ME 3160
Intermediate Materials
3
* Prerequisite(s): ENGR 2140, ENGR 2160, University Advanced Standing, and (Formal Acceptance into the Mechanical Engineering Program or Departmental Approval)
Teaches in further depth the mechanical behavior of engineering materials including metals, woods, plastics, ceramics and composites. Looks at characteristics, failure mechanisms, and designing with various engineering materials. Lab access fee of $45 for computers applies.

ME 3170
Introduction to Plastics and Composites
3
* Prerequisite(s): ENGR 2140, ENGR 2160, CHEM 1210, MATH 2250, University Advanced Standing, and (Formal Acceptance into the Mechanical Engineering Program or Departmental Approval)
Introduces the structure, processing, properties and uses of plastic and composite materials. Surveys manufacturing methods. Teaches the use of plastic and composite materials in various products. Lab access fee of $45 for computers applies.

ME 3210
Manufacturing Processes for Engineers
3
* Prerequisite(s): ENGR 2140, ENGR 2160, University Advanced Standing, and (Formal Acceptance into the Mechanical Engineering Program or Departmental Approval)
Introduces manufacturing processes, including machining, injection molding, casting, 3D printing, and forming. Introduces Computer Numeric Control (CNC) machining and Computer Aided Manufacturing (CAM). Lab access fee of $45 for computers applies.

ME 3300
Applied Thermodynamics
3
* Prerequisite(s): ENGR 2300, University Advanced Standing, and (Formal Acceptance into the Mechanical Engineering Program or Departmental Approval)
Introduces thermodynamic analysis and design of vapor, gas, refrigeration and heat pump systems, along with exergy analysis. Covers thermodynamic relations, ideal gas mixture and psychometric applications, reacting mixtures, and combustion. Includes a design component. Lab access fee of $45 for computers applies.

ME 3310
Fluid Mechanics
3
* Prerequisite(s): ENGR 2030, University Advanced Standing, and (Formal Acceptance into the Mechanical Engineering Program or Departmental Approval)
Covers the fundamentals of fluid mechanics including fluid properties, fluid statics, the Bernoulli equation, fluid kinematics, the integral and differential analyses of fluid flow. Introduces dimensional analysis, similitude, and modeling. Covers viscous internal and external flows, and turbomachines. Includes a design component. Lab access fee of $45 for computers applies.

ME 3320
Heat Transfer
3
* Prerequisite(s): ENGR 2300, ME 3310, or Departmental Approval) and University Advanced Standing
Focuses on the three modes of heat transfer: conduction, convection, and radiation. Introduces steady and unsteady heat conduction, convection heat transfer principles, forced and free internal and external convection flows. Covers radiation heat transfer, combined modes of heat transfer, and analysis and design of heat exchangers. Includes a design component. Lab access fee of $45 for computers applies.
Course Descriptions

ME 3335
Thermal/Fluid Experimentation WE
2
* Prerequisite(s): (ENGR 2300 or Departmental Approval) and University Advanced Standing
* Corequisite(s): ME 3320
Covers temperature, pressure, and flow measurement, along with calibration of thermal/fluid sensors in a lab setting. Focuses on experiments to investigate various phenomena in fluid flow, thermodynamics, and heat transfer. Investigates the performance of pumps, fans, and heat exchangers. Includes substantial amount of writing and satisfies WE requirements. Course Lab access fee of $45 applies.

ME 4010
Automatic Controls
3
* Prerequisite(s): ME 3010 and University Advanced Standing
Covers analysis of control systems using Evans, Nyquist and Bode methods. Introduces digital control and feedback compensation concepts for system performance improvement. Includes a design component. Lab access fee of $45 for computers applies.

ME 4015
Control and Vibration Experimentation
2
* Prerequisite(s): ME 4010 and University Advanced Standing
Introduces system modelling and characterization in the time and frequency domains, feedback and compensation, Proportional Integral Derivative (PID) control, control of velocity and position in a lab setting. Covers motion measurement, force measurement, free vibration, frequency response, impact response, noise, and signal processing. Includes a writing component. Lab access fee of $45 for computers applies.

ME 4180
Compliant Mechanisms
3
* Prerequisite(s): ME 3140 and University Advanced Standing
Covers the design and analysis of compliant mechanisms and compliant structures. Includes large-deflection analysis/force displacement relationships, prediction of failure of compliant members, and synthesis of compliant mechanisms. Includes a design component. Lab access fee of $45 for computers applies.

ME 4380
Design of Thermal/Fluid Systems
3
* Prerequisite(s): ENGR 2300, ME 3320, and University Advanced Standing
Applies the principles of thermodynamics, fluid mechanics, and heat transfer to the design of conventional and emerging thermal/fluid systems. Includes lectures and design projects. Lab access fee of $45 for computers applies.

ME 4390
Heating Ventilating and Air Conditioning Design
3
* Prerequisite(s): ENGR 2300, ME 3320, and University Advanced Standing
Covers air conditioning components and systems, moist air properties and conditioning processes. Covers indoor environmental quality indicators, space heating and cooling load calculations, and building energy consumption estimation. Focuses on water- and air-system design, refrigerants and refrigeration systems. Includes lectures and design projects. Lab access fee of $45 for computers applies.

ME 4410
Computer Aided Engineering
3
* Prerequisite(s): ME 3140, ME 3320 and University Advanced Standing
Covers the application of computer-aided engineering tools in design; 3-D geometry and solid modeling; finite element analysis, kinematic analysis, and other software in engineering analysis. Includes a design component. Lab access fee of $45 for computers applies.

ME 4420
Finite Element Methods
3
* Prerequisite(s): ENGR 2140, ME 3320 and University Advanced Standing
Covers discrete approximation of engineering problems, energy and weighted residual methods, and coordinate systems and mapping. Focuses on one-, two-, and three-dimensional formulation of problems in solid and fluid mechanics and heat transfer, time-dependent problems, and optimization techniques. Lab access fee of $45 for computers applies.

ME 4510
Mechanical Engineering Seminar
1
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ME 4810
Introduces various mechanical engineering careers and related industries. Emphasizes importance of life-long learning and active participation in professional societies and communities through lectures given by practicing engineers using their own experiences. Introduces various engineering codes of ethics. Intended as a culminating seminar for graduating seniors to prepare for their engineering careers. Lab access fee of $45 for computers applies.

ME 4550
Global Engineering
3
* Prerequisite(s): University Advanced Standing and Formal Acceptance into the Mechanical Engineering Program or Department Approval
Focuses on importance of issues associated with global product development including product development needs in unfamiliar cultures, managing distributed design teams and manufacturing at remote and/or distributed sites. Introduces first-hand how global companies approach these issues. Lab access fee of $45 for computers applies.

ME 4810
Mechanical Engineering Capstone I
3
* Prerequisite(s): University Advanced Standing, Formal Acceptance into the Mechanical Engineering Program, and Departmental Approval
Serves as a comprehensive two-semester design experience from conception to modeling or prototype. Uses, where possible, multidisciplinary team application of the engineering design process along with project management, manufacturing methods and economic analysis. Culminates in a design review based on formal presentations of fully documented, detailed proposed designs. Capstone I and II must be taken in consecutive semesters. Lab access fee of $45 for computers applies.

ME 481R
Mechanical Engineering Internship
1 to 3
* Prerequisite(s): University advanced standing. Admission into the Mechanical Engineering program and instructor approval.
Provides opportunities to apply classroom theory while students work as employees in a job that relates to their careers. Includes regular communication between students and the course coordinator. Credit is determined by the number of hours a student works during the semester and completion of individually set goals. May apply for up to 3 credits; may be graded as credit/no credit.

ME 4820
Mechanical Engineering Capstone II
3
* Prerequisite(s): ME 4810 and University Advanced Standing
Serves as a second semester of the two-semester design experience from conception to modeling or prototype. Uses, where possible, multidisciplinary team application of the engineering design process along with project management, manufacturing methods and economic analysis. Culminates in a demonstration of a final product (model or working prototype) with verification and documentation of how final product meets customer needs. Capstone I and II must be taken in consecutive semesters. Lab access fee of $45 for computers applies.
ME 490R  
Advanced Current Topics in Mechanical Engineering  
1 to 3  
* Prerequisite(s): University Advanced Standing and Formal Acceptance into the Mechanical Engineering Program or Department Approval  
Provides exposure to emerging topics and technologies of current interest in mechanical engineering. Varies each semester depending upon the state of technology. May be repeated for a maximum of 6 credits toward graduation without prior written department approval. Lab access fee of $45 for computers applies.

Meteorology (METO)  

METO 1010  
Introduction to Meteorology  
3  
Introduces the study of our atmosphere. Studies the Earth's dynamic weather systems. Covers structure and compositions of the atmosphere; weather patterns; air masses; and types of weather fronts, weather forecasting, and climates.

METO 1020  
Introduction to Meteorology Laboratory  
1  
Provides hands-on experience for students investigating various meteorologic phenomena discussed in METO 1010. Students desiring credit for a science major should take METO 1010 and METO 1020. Course lab fee of $10 applies.

METO 1060  
Fundamentals of Weather Forecasting  
3  
Introduces the fundamental principles of meteorological processes and mid-latitude weather forecasting. Focuses on the analysis of surface and upper-air weather maps, of soundings, of satellite and radar imagery to analyze current meteorological conditions. Explores the application of techniques to perform forecasts for basic weather variables such as temperature and precipitation. Course lab fee of $10 applies.

METO 3100  
Climate and the Earth System  
3  
* Prerequisite(s): (CHEM 1110 or CHEM 1210), (MATH 1050 or MATH 1055), (PHYS 2010 or PHYS 2210), METO 1010, GEO 1010, and University Advanced Standing  
Studies the six major components of the Earth system (i.e., the atmosphere, the hydrosphere, the cryosphere, the geosphere, the exosphere, and the biosphere) and investigates the interdependency and connections of these components, with particular emphasis on the effects on the climate system. Discusses the Earth's energy balance, the greenhouse effect, and the biogeochemical cycles of some elements and provides an overview of the most important climatic events that occurred during the history of the Earth. Course lab fee of $10 applies.

Marriage and Family Therapy (MFT)  

MFT 379R  
Special Topics in MFT  
1 to 3  
* Prerequisite(s): MFT Program Director Approval  
Examines topics of current interest and demand in Marriage and Family Therapy. Provides in-depth education and training in specialized topics within the field of marriage and family therapy practice. Selected topics may vary by semester. May be repeated with different topics for a maximum of 6 credits toward graduation requirements.

MFT 6000  
Systemic Foundations of Marriage and Family Therapy  
3  
* Prerequisite(s): Admission to the Master of Marriage and Family Therapy, M.A. program  
Introduces students to the historical development of the relational/systemic perspective. Emphasizes a systemic paradigm for clinical intervention. Includes conceptual foundations of MFT.

MFT 6010  
Contemporary Approaches to MFT  
3  
* Prerequisite(s): Admission to the Master of Marriage and Family Therapy, M.A. program  
Introduces students to contemporary models of MFT. Compares post-modern models of MFT. Includes evidence-based practice and the biopsychosocial perspective.

MFT 6100  
Ethical Issues in Marriage and Family Therapy  
3  
* Prerequisite(s): Admission to the Master of Marriage and Family Therapy, M.A. program  
Promotes MFT identity. Develops student competence in ethical decision making. Includes application of the American Association for Marriage and Family Therapy Code of Ethics and relevant Utah law to clinical scenarios.

MFT 6200  
Systemic Assessment and Diagnosis  
3  
* Prerequisite(s): Admission to the Master of Marriage and Family Therapy, M.A. program  
Develops student competence in treatment approaches specifically designed for use with families. Introduces students to crisis intervention with families. Includes evidence-based practice for clinical work with young children, adolescents, families in mid-life, and elderly families.

MFT 6210  
Couples Therapy  
3  
* Prerequisite(s): MFT 6200 and admission to the Marriage and Family Therapy, M.A. program  
Develops student competence in treatment approaches specifically designed for use with a range of diverse couples, including sex therapy, same-sex couples, elderly, and interfaith couples. Includes evidence-based practice and crisis intervention with couples.

MFT 6220  
Group Therapy  
2  
* Prerequisite(s): MFT 6200 and admission to the Marriage and Family Therapy, M.A. program  
Develops student competence in treatment approaches specifically designed for use with groups. Evaluates group work with addiction, abuse and trauma. Includes evidence-based practice and crisis intervention with groups.

MFT 6230  
Family Therapy  
3  
* Prerequisite(s): MFT 6000 and admission to the Marriage and Family Therapy, M.A. program  
Develops student competence in treatment approaches specifically designed for use with families. Introduces students to crisis intervention with families, including assessment and treatment of addiction and family violence. Includes evidence-based practice for clinical work with adult children, families in mid-life, and elderly families.
Course Descriptions

MFT 6240  
Individual Therapy  
2  
* Prerequisite(s): MFT 6200 and admission to the Marriage and Family Therapy, M.A. program
Introduces students to a variety of common presenting problems including addiction, suicide, trauma, abuse, intra-familial violence, and acute chronic medical conditions. Utilizes a relational/systemic philosophy. Includes evidence-based practice and crisis intervention with individuals.

MFT 6300  
Working with Diversity in MFT  
3  
* Prerequisite(s): Admission to the Master of Marriage and Family Therapy, M.A. program
Builds student awareness of diversity, power, privilege, and oppression as these relate to race, age, gender, ethnicity, sexual orientation, gender identity, socioeconomic status, disability, health status, religious affiliation, nation of origin, spiritual orientation, or other relevant social categories.

MFT 6310  
Child and Adolescent Development  
3  
* Prerequisite(s): MFT 6000 and admission to the Marriage and Family Therapy, M.A. program
Introduces students to individual and family development during stages of childhood and adolescence, including developmentally appropriate individual and family therapy models. Addresses human sexuality. Discusses biopsychosocial health during childhood and adolescence.

MFT 6320  
Adult Issues in Human Development  
3  
* Prerequisite(s): MFT 6300 and admission to the Marriage and Family Therapy, M.A. program
Introduces students to individual and family development across stages of adulthood. Addresses human sexuality. Discusses biopsychosocial health during adulthood.

MFT 6400  
Research in Marriage and Family Therapy  
3  
* Prerequisite(s): MFT 6000 and admission to the Marriage and Family Therapy, M.A. program
Introduces students to basic research methodology. Examines evidence-based practice in MFT. Evaluates usefulness of couple, marriage, and family therapy research.

MFT 6500  
Community Intervention  
1  
* Prerequisite(s): Admission to the Master of Marriage and Family Therapy, M.A. program
Introduces students to practice within defined contexts (e.g., healthcare settings, schools, military settings, private practice). Addresses nontraditional MFT professional practice using therapeutic competencies (e.g., community advocacy, psycho-educational groups). Considers multidisciplinary collaboration.

MFT 6510  
Contemporary Issues in MFT  
1  
* Prerequisite(s): MFT 6000 and admission to the Marriage and Family Therapy, M.A. program
Develops student competence in emerging and evolving contemporary challenges. Examines problems and/or recent developments at the interface of MFT knowledge and practice and the broader local, regional, and global context. Includes discussion of contemporary issues such as immigration, technology, same-sex marriage, and violence in schools.

MFT 6520  
Clinical Business Development and Practice  
2  
* Prerequisite(s): Admission to the Master of Marriage and Family Therapy, M.A. program
* Prerequisite(s) or Corequisite(s): MFT 693R
Introduces students to the development of private clinical practices. Emphasizes business practice in the mental health field. Includes discussion of HIPAA and telehealth.

MFT 6550  
Pre-Practicum  
3  
* Prerequisite(s): Admission to the Master of Marriage and Family Therapy, M.A. program
Introduces basic skills and competencies needed for effective and ethical clinical practice. Guides self-awareness and self-reflection. Presents expectations of competency in basic MFT interventions, sensitivity to client contextual variables, completion of case documentation, and use of supervision and feedback. May be repeated for a maximum of 6 credits toward graduation.

MFT 691R  
Practicum I  
3  
* Prerequisite(s): Approval of MFT faculty and admission to the Marriage and Family Therapy, M.A. program
* Prerequisite(s) or Corequisite(s): MFT 690R
Develops student competence in MFT assessment and intervention. Includes practice with diverse, international, multicultural, marginalized, and/or underserved communities. Guides competence in working with sexual and gender minorities and their families as well as anti-racist practices. Guides self-awareness and self-reflection. Requires completion of case documentation, and effective use of supervision and feedback. May be repeated for a maximum of 6 credits toward graduation.

MFT 692R  
Practicum II  
3  
* Prerequisite(s): MFT faculty approval and admission to the Marriage and Family Therapy, M.A. program
* Prerequisite(s) or Corequisite(s): MFT 691R
Continues development of student competence in MFT assessment and intervention. Includes practice with diverse, international, multicultural, marginalized, and/or underserved communities. Guides competence in working with sexual and gender minorities and their families as well as anti-racist practices. Guides self-awareness and self-reflection. Requires completion of case documentation, and effective use of supervision and feedback. May be repeated for a maximum of 6 credits toward graduation.
MFT 693R
Practicum III
3
* Prerequisite(s): Approval of MFT faculty and admission to the Marriage and Family Therapy, M.A. program
* Prerequisite(s) or Corequisite(s): MFT 692R
Final development of student competence in MFT assessment and intervention. Includes practice with diverse, international, multicultural, marginalized, and/or underserved communities. Guides competence in working with sexual and gender minorities and their families as well as anti-racist practices. Guides self-awareness and self-reflection. Requires completion of case documentation, and effective use of supervision and feedback. May be repeated for a maximum of 6 credits toward graduation.

MFT 694R
Practicum IV
3
* Prerequisite(s): Approval of MFT Faculty and admission to the Marriage and Family Therapy, M.A. program
* Prerequisite(s) or Corequisite(s): MFT 693R
Final development of student competence in MFT assessment and intervention. Includes practice with diverse, international, multicultural, marginalized, and/or underserved communities. Guides competence in working with sexual and gender minorities and their families as well as anti-racist practices. Guides self-awareness and self-reflection. Requires completion of case documentation, and effective use of supervision and feedback. May be repeated for a maximum of 6 credits toward graduation.

Business Management (MGMT)

MGMT 1010
Introduction to Business
3
Overviews the business world, its structure, procedures, and vocabulary. Provides information to assist in making occupational choices. Methods include lectures, class discussions, group activities, videos, and guest speakers. Completers should have a general knowledge of business and career opportunities. May be delivered online. Canvas Course Mats $31/Lumen applies.

MGMT 1200
Business English
3
* Prerequisite(s): ENGL 1010 or ENGH 1005 or appropriate test scores
For all those desiring to improve business English skills. Studies current usage of English grammar, including parts of speech, syntax, and punctuation. Emphasizes business usage. Lab access fee of $25 for computers applies.

MGMT 1250
Principles of Leadership
3
Provides an introduction to principles of leadership. Examines personal beliefs about leadership and explores leadership philosophies, styles, and skills. Includes opportunities to identify individual strengths and develop leadership potential. Lab access fee of $25 for computers applies.

MGMT 1400
Introduction to Data Analytics
3
Introduces data analytics to a general audience. Presents the role of the analyst and different career paths available within data analytics. Employs a broad range of use cases to introduce methods for extracting, cleaning, organizing, and analyzing data and sharing insights. Covers data visualization and report generating tools. Discusses the legal, ethical, and privacy issues involved with big data projects.

MGMT 2030
Inclusive Leadership
SS
3
* Prerequisite(s): ENGL 1010 or ENGH 1005
Explores the experiences of individuals at work, with an emphasis on diversity and inclusion in leadership. Examines opportunities for and obstacles to leadership development and success, differences in communication and behavior, leader prototypes and perceptions of leader behaviors, the effects of the 24/7 work culture on leaders, and managerial and organizational strategies to support the advancement of all leaders. Draws from various social science disciplines, including organizational behavior, psychology, sociology, and economics.

MGMT 2240
Business Calculus
3
* Prerequisite(s): MATH 1050, MATH 1055, or MATH 1090 taken within the last two years with grade of C- or better or appropriate placement assessment score.
Analyzes profit, revenue, cost and average cost functions through rates of change, both average and instantaneous. Applies graphical, numerical, and algebraic techniques to optimization in business-related problems. Covers compound interest including present and future value of ordinary annuities. Focuses on solving a variety of problems in economics and finance using derivatives and integrals. May be delivered hybrid and/or online. Canvas Course Mats $78/Cengage applies. Lab access fee of $25 for computers applies.

MGMT 2340
Business Statistics I
3
* Prerequisite(s): MATH 1050, MATH 1055, or MATH 1090 or higher, or appropriate test scores
Presents an application of statistics in business and economics covering methods of collecting, analyzing, and presenting data. Includes frequency distributions, averages, index numbers, probability, sampling, estimation, analysis of variance, time series, regression and correlation, and chi-square. Canvas Course Mats $85/McGraw applies. Lab access fee of $25 for computers applies. Software fee of $40 applies.

MGMT 2400
Data Analytics for Business
3
Introduces the field of data analytics in business. Introduces the software, languages, and hardware used in data analytics. Uses common analytical tasks such as clustering, classifying, and predicting outcomes, along with common algorithms used in data analytics, such as regression, decision trees, and neural networks. Discusses the legal, ethical, and privacy issues inherent with big data projects. Includes hands-on experience with data extraction, data analysis and interpretation. Software fee of $40 applies.

MGMT 2450
The Principles of Personal Excellence
3
Introduce students to a holistic framework for the development of personal effectiveness and peak performance. Reviews principles, processes, and practices used by peak performers in many life disciplines. Offers students a chance to apply many practices and techniques, which they can apply within the many performances arenas of their life. Course fee of $15 applies.

MGMT 258R
Current Topics in International Business
1 to 3
* Prerequisite(s): Department Chair Approval
Provides exposure to emerging topics of current interest in international business. Topics vary each semester. May apply a maximum of three hours toward graduation.

MGMT 281R
Cooperative Work Experience
2 to 8
* Prerequisite(s): Approval from School of Business Career and Corporate Manager
Provides opportunities to apply classroom theory on the job. Students work as paid employees in a job that relates to their careers while enrolled at the institution. Credit is determined by the number of hours a student works during the semester. Completers meet individually set goals. Six credits may be applied toward graduation. May be graded credit/no credit.
MGMT 290R
Independent Study
1 to 3
Provides independent study as directed in reading and individual projects. Requests must be submitted for approval by the department. Approval for this program will be coordinated with the instructor. May be repeated for up to three credits.

MGMT 292R
Seminar
1 to 3
Designed to give the student added insight into management principles essential for successful management of a business. Includes guest experts from the field of business. May be repeated for a total of three credits.

MGMT 297H
Honors Seminar in Leadership Development
3
Emphasizes factors that impact leadership effectiveness and skill development in organizations. Features lectures on topics such as leadership, participative management, negotiations, team building, and women's issues by local experts in a seminar setting. Includes group interaction and discussions, written summaries and instructor critique of student performance.

MGMT 3000
Organizational Behavior WE
3
* Prerequisite(s): MKTG 220G or ENGL 2010 and University Advanced Standing
Studies behavioral theories and concepts for creating effective organizations. Emphasizes knowledge of individual, group, and organizational processes and variables regarding people's attitudes and behaviors in organizational settings. Presents topics on communication, leadership, motivation, conflict management, socialization, team building, decision making, diversity, ethics, and culture. Includes lectures, case studies, oral presentations, written assignments, and group projects. Lab access fee of $32 for computers applies.

MGMT 3020
Individual Action and Corporate Social Responsibility
3
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Focuses on moral issues in organizations and the role and importance these have in today's complex business environment. Explores the challenges that arise across the spectrum of business activity and studies human conduct in a business context and what constitutes right and wrong. Examines issues of ethics as they apply to business entities, managers, shareholders, customers, society, and other consultants. Focuses on identifying and solving real world ethical dilemmas in business, and evaluates various individual and corporate decision-making models.

MGMT 3070
Total Quality Management
3
* Prerequisite(s): MGMT 3450, Matriculation into Woodbury School of Business, and University Advanced Standing
Covers universal principles of quality assurance management, mechanics of a quality information system, and quality management practices. Emphasizes system elements, controls, and fitness for use. Includes process charting, quality costing concepts, statistical process control (SPC), sampling, variability, attribute charting, and continuing improvement strategies. May be delivered online. Lab access fee of $25 for computers applies. Software fee of $40 applies.

MGMT 3300
Survey of International Business
3
* Prerequisite(s): (ENGL 2010 or MKTG 220G), ECON 2010, and University Advanced Standing
Teaches international business, trade, and foreign investment, and theories of international trade. Studies economic development, international investment and international agencies (government and private) that affect international business by informing, regulating or financing. Develops an appreciation of the unpredictable forces of foreign environments. Explores how international businessmen respond to these influences. Canvas Course Mats $85/McGraw applies.

MGMT 332G (Cross-listed with: COMM 332G)
Cross Cultural Communications for International Business
3
* Prerequisite(s): (ENGL 2010 or COMM 1050) and University Advanced Standing
Discusses today's business environment which requires work in a multi-ethnic setting. Overviews critical elements that arise from the various cultural backgrounds which can impact both domestic and international organizations. Proceeds from a management point of view with lessons easily derived for the mid-level manager as well as for line personnel. Concentrates on managerial communications, negotiations, cultural changes, and management functions.

MGMT 3345
Business Statistics II
3
* Prerequisite(s): MGMT 2340 or STAT 2040 or appropriate test scores and University Advanced Standing
Studies advanced managerial concepts. Includes multiple regression, ANOVA, test of hypotheses, and time series techniques. Emphasizes statistical modeling, statistical decision-making, and is computation intensive. Lab access fee of $25 for computers applies. Canvas Course Mats $85/McGraw applies.

MGMT 3440
Managing Organizations
3
* Prerequisite(s): MGMT 3000 and University Advanced Standing
Studies management theory and emphasizes the managerial view of the elements and variables that influence the organization. Examines organizational design and change emphasizing the management tools used in planning, organizing, directing, controlling, and leading, and the coordinating of these factors within organizations. Uses current events as they relate to managing and developing the organization. Includes case analyses, team building exercises, videos, class discussions, group presentations, written assignments, and guest speakers. Lab access fee of $25 for computers applies.

MGMT 3450
Operations Management
3
* Prerequisite(s): Matriculation into WSB and University Advanced Standing
Focuses on the management of resources for products, production, or services within an organization. Covers project management, supply chain, facility location and layout, forecasting, scheduling, planning, and operational processes. Emphasizes product/service development, supply chain, forecasting, inventory control, quality assurance, and research techniques. May be delivered hybrid and/or online. Canvas Course Mats $85/McGraw applies. Lab access fee of $25 for computers applies.
MGMT 3460  
Scheduling, Forecasting and Inventory Management  
3  
* Prerequisite(s): Matriculation into Woodbury School of Business and University Advanced Standing  
* Prerequisite(s) or Corequisite(s): MGMT 3450  
Applies critical scheduling, forecasting and inventory management skills in business operations. Analyzes a wide array of quantitative and qualitative methods that are in current industry use. Analyzes scheduling and forecasting in business situations, and how to manage inventory systems. Evaluates both short-run and long-run forecasting and inventory considerations.

MGMT 3470  
Lean Management Systems  
3  
* Prerequisite(s): MGMT 3450, matriculation into Woodbury School of Business, and University Advanced Standing  
Teaches advanced operations management processes beyond introductory course. Studies process and value stream management. Teaches importance of continuous improvement and other techniques critical to operations management in modern organizations. Integrates hands-on experience in lean thinking processes. Software fee of $40 applies.

MGMT 3480  
Operations Simulation  
3  
* Prerequisite(s): MGMT 3450 and University Advanced Standing  
Applies critical operations management skill sets in a simulation. Creates simulations to analyze and solve operational problems. Applies data visualization software to make strategic decisions.

MGMT 3500  
Leadership Theory and Application WE  
3  
* Prerequisite(s): University Advanced Standing  
Examines leadership theory and how it applies to real-world situations. Facilitates thinking and dialogue about leaders and the leadership process. Covers leadership development strategies and approaches for individuals, teams, and organizations. Includes readings, discussions, reflections, experiential activities, guest speakers, written papers, and innovative assignments. Lab access fee of $25 for computers applies.

MGMT 3700  
Supply Chain and Logistics Management  
3  
* Prerequisite(s): MGMT 3450 and University Advanced Standing  
Teaches planning and controlling of supply chains and distribution networks. Covers concepts of network design, forecasting, aggregate planning, transportation, sourcing decisions, performance metrics, and the role of information technology in supply chain.

MGMT 3730  
Opportunities in Direct Sales  
3  
* Prerequisite(s): University Advanced Standing  
Discusses direct sales and the impact on our society. Covers basic terminology of the direct sales industry. Introduces distinctions between legal and illegal activity in the industry. Teaches the history of direct sales, compensation plans, and industry ethics. Analyzes communication skills in the direct sales industry. Explores the unique nature of the relationship between the company and the independent representative. Uses discussion, lecture, presentations and group activities to increase understanding and ability to analyze business under the umbrella of direct sales.

MGMT 3740  
Relationship Marketing  
3  
* Prerequisite(s): MGMT 3730 and University Advanced Standing  
For students interested in understanding relationship marketing as it applies to the direct selling industry. Focuses on the relationship between companies and their independent sales forces. Covers business ethics, compensation, structures, company conventions, distributor services, and online community building. Uses lectures, discussions, guest speakers, analyses in the field, and presentation of analysis in both oral and written format.

MGMT 3760  
Business Analysis and Project Management  
3  
* Prerequisite(s): University Advanced Standing  
Prepares students for entry-level certification in Business Analysis. Covers elicitation and collaboration, life cycle management, planning and monitoring, and analysis and design models.

MGMT 4350  
Strategic Operational Planning  
3  
* Prerequisite(s): MGMT 2240 or MATH 1100, MGMT 2340, Matriculation into Woodbury School and University Advanced Standing.  
Integrates planning concepts in the planning hierarchy within a manufacturing framework. Explores in depth the concepts of capacity planning, advanced sales and operational planning, demand management and forecasting, advanced MRP/ERP, inventory control, scheduling and lot sizing. Focuses on linkages between production planning and execution.

MGMT 4470  
Management Science and Optimization  
3  
* Prerequisite(s): MGMT 2240 or MATH 1100, MGMT 2340, and University Advanced Standing  
Explores management science and optimization models in depth, focusing on business applications and computer modeling. Introduces linear programming, integer programming, nonlinear programming, goal programming and network flow models. Studies transportation, assignment and transshipment problems. Also studies stochastic models, queueing, simulation and decision analysis.

MGMT 450R  
Leadership Practicum  
3  
* Prerequisite(s): MGMT 1250 or MGMT 2030 or MGMT 3000 or MGMT 3500; University Advanced Standing  
Provides the opportunity to apply leadership theories and knowledge to professional contexts through a carefully designed project. Facilitates the acquisition and practice of leadership skills. Requires students to act as members of a consulting team to advise classmates on their projects. May be repeated for a maximum of 6 credits toward graduation.

MGMT 458R  
Advanced Topics in International Business  
1 to 3  
* Prerequisite(s): Department Chair Approval and University Advanced Standing  
Provides exposure to emerging topics of current interest in international business. Topics vary each semester. May apply a maximum of 6 hours toward graduation.
Course Descriptions

MGMT 4620
Developing Business in China
3
* Prerequisite(s): ENGL 2010, Junior Standing, and University Advanced Standing

Introduces the key factors driving the economy and companies doing business in and with China. Compares the institutions and characteristics of the Chinese economy and business system. Identifies issues facing managers of western corporations producing and selling in the Chinese market, sourcing from Chinese industry and competing with Chinese rivals.

MGMT 481R
Internship
1 to 6
* Prerequisite(s): Matriculation into Woodbury School of Business, approval from School of Business Career and Corporate Manager, and University Advanced Standing

For upper-division students working toward a Bachelor of Science Degree in Business Management. Provides a transition from school to work where learned theory is applied to actual practice through meaningful on-the-job experience. No more than three credit hours of internship work experience will apply toward graduation in any Business Management Specialization; may be repeated for a maximum of 6 credits. May be graded credit/no credit.

MGMT 4835
Management Consulting Strategy Implementation
1
* Prerequisite(s): Department Approval
* Corequisite(s): MGMT 4840

Builds on strategic management concepts and consulting course material using a hands-on, competitive business simulation.

MGMT 4840
Management Consulting
3
* Prerequisite(s): FIN 3100 with a minimum grade of B-, Instructor approval, and University Advanced Standing
* Corequisite(s): MGMT 4835

Builds knowledge and capability in the consulting process, competitive- and corporate-level strategic management elements, and client management strategies. Develops a business project with teams of students working together with a specific, recruited, local company. Applies knowledge and skills from the business curriculum, student teams will gather needed data, analyze it, problem-solve, and craft recommendations in order to improve competitive implementation and meet firm objectives using strategic management and project management tools.

MGMT 4860
Business Strategy Formulation and Implementation
3
* Prerequisite(s): FIN 3100, MKTG 3600, MGMT 3000, MGMT 3450 and Matriculation into the Woodbury School of Business and University Advanced Standing

Integrates all major management area skills into a capstone experience for students in several WSB programs. Integrates strategic management concepts and thinking processes through case analysis. Includes topics from accounting, finance, marketing, economics, operations, and organizational behavior. Provides experiential learning with industry partners both local and regional. Canvas Course Mats $65/Wiley applies.

MGMT 4870
International Management
3
* Prerequisite(s): MGMT 3000, MKTG 3600, Matriculation into the Woodbury School of Business, and University Advanced Standing

Examines in depth the leading forces and trends shaping the opportunities and challenges confronted by multinational corporations (MNCs) as they assemble, grow, mature, coordinate and control their international network of subsidiaries, joint-ventures, alliances, and supplier firms. Examines the strategies pursued by MNCs in response to opportunities and challenges in this process, consistent with their distinctive strengths and weaknesses; and theories. Contrasts the models and strategic frameworks relating these strategies and forces/trends. Includes group project (written and oral presentations) on a multinational corporation developing or maturing its network in a selected market.

MGMT 490R
Independent Study
1 to 3
* Prerequisite(s): Department Chair Approval and University Advanced Standing

For bachelor's degree students and other interested persons. Offers independent study as directed in reading, in individual projects, etc., in the area of marketing and/or international business at the discretion and approval of the department chairperson. May apply a maximum of 6 hours toward graduation.

MGMT 492R
Human Resource Seminar
1
* Prerequisite(s): Department Chair Approval and University Advanced Standing

Presents guest speakers on emerging human resource (HR) research and issues: strategy, international, culture, legal issues, planning and job analysis, recruitment and selection, performance management, compensation and benefits, and career development. May be repeated for 2 credits toward graduation.

MGMT 494R
Seminar
.5 to 3
* Prerequisite(s): University Advanced Standing

Provides short courses, workshops, and special programs in business management, leadership, or current business topics. Repeatable for up to 3 credits toward graduation.

MGMT 495R
Executive Lecture Series
1
* Prerequisite(s): University Advanced Standing

Consists of lectures presented by guest speakers on current business topics concerning the student, community, nation, business world, etc. May be required in business programs; see specific program listings for details. May apply a maximum of 3 credits toward graduation.

MGMT 497H
Business Honors Seminar
1 to 3
* Prerequisite(s): Permission required, 3.4 GPA or higher, senior status, and University Advanced Standing

Provides in-depth exposure to an issue of current interest in business by a local expert in a seminar setting. Includes group interaction and discussion, critical analysis of readings, and critique of student writings. Topics vary each semester.

MGMT 4980
Business Research Seminar
3
* Prerequisite(s): Instructor Approval and University Advanced Standing

Studies the process of researching and writing for scholarly publication. Includes understanding the concepts of scholarly conversation, managing scholarship, choosing a topic, identifying appropriate journals, using exemplars, creating a title and abstract, making an outline, developing an introduction and conclusion, writing the body of the paper, and then revising, submitting, and finally publishing in a scholarly journal.

MGMT 6000
Career Development and Advancement
1.5
* Prerequisite(s): Acceptance into the UVU MBA program

Develops ability to implement the career management process by exploring the structure of career research and networking. Enhances interviewing and salary negotiation skills and abilities. Also addresses the transitional soft skills needed in a career management position. Provides interaction between students and successful leaders of business and nonprofit organizations throughout the semester.
MGMT 6215
Managing and Facilitating Professional Teams
3
* Prerequisite(s): Admission to Master of Accountancy or the Master of Business Administration Program

Enhances the ability to analyze and function in team-based, professional environments. Teaches what actions are needed to increase the effectiveness of a team, solve interpersonal problems, and remove common roadblocks.

MGMT 6300
Healthcare Systems
3
* Prerequisite(s): Admission into any graduate program at Utah Valley University

Surveys the major components and organizational interrelationships of the United States health care system. Examines the various Healthcare organizations (HCOs), personnel issues, delivery systems, and policy and payment mechanisms. Explores public policy and business practice issues associated with access, cost and quality of Healthcare.

MGMT 6305
Applied Business Research
3
* Prerequisite(s): Acceptance in the MBA program in the Woodbury School of Business

Examines the philosophy of research which develop decision making processes for complex organizations and systems. Examines the ethical and legal issues raised by the capabilities of information technology. Emphasizes how information technology affects decision-making. Uses Excel as a decision support tool. Examines the ethical and legal issues raised by the capabilities of information technology.

MGMT 6310
Healthcare Policy
3
* Prerequisite(s): Admission into any graduate program at Utah Valley University

Examines political issues affecting contemporary Healthcare services by analyzing policy goals, public policy formulation processes, and external environments. Examines the blended use of managerial epidemiology, biostatistics, political and economic analysis, with an understanding of public health initiatives. Fosters an appreciation among future Healthcare leaders for how political structures determine interactions with local and national governments.

MGMT 6320
Population Health Management
3
* Prerequisite(s): Admission into any graduate program at Utah Valley University

Studies Healthcare trends and consumerism among different populations. Focuses on improving care for populations by examining patient preferences and needs, including access, and affordability. Examines ways of improving clinical health outcomes through improved care coordination and patient engagement. Discusses appropriate financial and care models.

MGMT 6340
Advanced Project Management
3
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business

Focuses on advanced tools and techniques to develop strategic project management skills with an emphasis on managing technical projects. Explores best practices aligned for Program Management, Project Portfolio Management, and Strategic Project Leadership and Management. Analyzes basic cost justification techniques for making economic decisions in technical organizations.

MGMT 6345
Operations Management
3
* Prerequisite(s): Acceptance in the MBA program

Analyzes operations and production activities. Reviews basic processes. Analyzes managing a production or service organization, evaluation of concepts such as inventory control, production control, procurement, quality management, planning, and forecasting.

MGMT 6350
Managing Individuals and Groups
3
* Prerequisite(s): Acceptance in the MBA program

Examines the individual, group, and organizational levels, including topics such as individual differences, motivation, leadership, human resource management, teamwork, and organizational design, and structure.

MGMT 6450
Operations and Supply Chain Management
3
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business

Reviews basic processes. Analyzes managing a production or service organization, evaluation of concepts such as inventory control, production control, procurement, quality management, planning, and forecasting.

MGMT 6470
Organization Information Technologies
3
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business

Examines in depth how information and information management affect the strategy, structure and operations of organizations. Covers technical and organizational foundations of information systems along with contemporary approaches to building, managing and protecting information systems. Includes hands-on work with a modern Enterprise Resource Planning (ERP) system. Compares Enterprise Architecture to cloud-based Software as a Service offerings.

MGMT 6500
Managing Individuals and Groups
3
* Prerequisite(s): Acceptance in the MBA program

Explores the concepts, theories, and practices related to the behavior and attitudes of people in organizations. Examines issues at the individual, group, and organizational levels, including topics such as individual differences, motivation, leadership, human resource management, teamwork, and organizational design, and structure.

MGMT 6640
Advanced Project Management
3
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business

Focuses on advanced tools and techniques to develop strategic project management skills with an emphasis on managing technical projects. Explores best practices aligned for Program Management, Project Portfolio Management, and Strategic Project Leadership and Management. Analyzes basic cost justification techniques for making economic decisions in technical organizations.

MGMT 6700
Global Business Strategy
3
* Prerequisite(s): Acceptance in the MBA program

Examines advanced topics in operations research which develop decision making processes for complex organizations and systems. Identifies creative methods to analyze problems, develop alternative processes for decision making, and optimize processes for business and organizations. Canvas Course Mats $48/McGraw applies.

MGMT 6705
Designing Business
1.5
* Prerequisite(s): Acceptance into the Woodbury School of Business MBA program

Provides an opportunity to integrate the functional areas of business using a simulation, a comprehensive business case, or a consulting project with a community-based organization.
MGMT 6930
International Engagement
3
* Prerequisite(s): Acceptance into the Woodbury School of Business MBA program

Provides an integrated, engaged, learning opportunity for students to experience differences in culture and business operations of another country through the completion and reflection of an international consulting project or case studies, and a possible international experience. Projects or case studies will require the integration of functional areas of business in an international setting, and will highlight how these functions are interrelated.

MGMT 6940
MBA Consulting Project
3
* Prerequisite(s): Acceptance into the Woodbury School of Business MBA program
* Prerequisite(s) or Corequisite(s): MGMT 6800

Utilizes community consulting to focus on business development through identifying, evaluating, and executing business opportunities within new and existing businesses. Implements consulting processes and strategies, and allows students to practice tools and techniques for developing business models.

MGMT 694R
Special Topics
1 to 3
* Prerequisite(s): Admission to the MBA Program

Provides short courses, workshops, and special programs in business management, leadership, or current business topics. May be repeated for a maximum of 3 credits toward graduation.

Microbiology (MICR)

MICR 2060
Microbiology for Health Professions
3
* Prerequisite(s): BIOL 1610 and (ENGL 1010 or ENGH 1005) with a C- or higher in each. CHEM 1110 or higher is highly recommended
* Corequisite(s): MICR 2060

Studies the history of microbiology. Explores bacterial, fungal, parasitic, and viral diseases and their causes. Discusses the classification, physiology, genetics, and physical and chemical control of microbes. Emphasizes clinical applications. Is designed for those planning a career in the health professions such as nursing, dental hygiene, medicine, pharmacy, and dentistry. Includes weekly laboratory as a corequisite.

MICR 2065
Microbiology for Health Professions Laboratory
1
* Prerequisite(s): (BIOL 1010 or BIOL 1610) and (ENGL 1010 or ENGH 1005). CHEM 1110 highly recommended
* Corequisite(s): MICR 2060

Studies the history of microbiology. Explores bacterial, fungal, parasitic, and viral diseases and their causes. Discusses the classification, physiology, genetics, and physical and chemical control of microbes. Emphasis is on clinical applications. Designed for those planning a career in the health professions such as nursing, dental hygiene, medicine, pharmacy, and dentistry. Includes weekly laboratory. Course Lab fee of $44 for materials, lab applies.

MICR 3000
Microscopic Methods
1
* Prerequisite(s): MICR 2060 or MICR 3450

Provides an integrated, engaged, learning opportunity for students to experience differences in culture and business operations of another country through the completion and reflection of an international consulting project or case studies, and a possible international experience. Projects or case studies will require the integration of functional areas of business in an international setting, and will highlight how these functions are interrelated.

MICR 3150
Microbial Ecology WE
4
* Prerequisite(s): BIOL 1620 and University Advanced Standing

Covers fundamentals of microbial ecology including interactions, major habitats, and factors that dictate microbial community structure consisting of bacteria, archaea, eukaryotes, and viruses. Includes in-depth examination of classic examples as well as additional systems to be selected based on class preferences. Course fee of $25 for materials applies.

MICR 3200
Emerging and Re Emerging Diseases and Zoonoses
3
* Prerequisite(s): MICR 2060 or MICR 3450 with a C- or higher in each and University Advanced Standing

Utilizes the most current infectious disease entities as examples for new (emerging) or old (re-emerging) diseases currently affecting mankind. Discusses zoonotic diseases (those transmissible from animals to humans and vice-versa) in detail. Emphasizes the underlying mechanisms of disease, and includes fundamental aspects of virology, bacteriology, and parasitology. Covers fundamental concepts in epidemiology, how the public health system deals with these diseases once they have been identified and instances where the public health system has failed in controlling these diseases along with the reasons for these failures. Investigates historical aspects of infectious diseases.

MICR 3450
General Microbiology
3
* Prerequisite(s): BIOL 3400 with a C- or higher and University Advanced Standing; BIOL 3600 recommended
* Corequisite(s): MICR 3455

Covers taxonomy, physiology and genetics of bacteria, archaea, viruses and eukaryotic microbes. Introduces industrial microbiology, biotechnology, and immunology and the biochemical basis of infectious diseases. Is designed for biology majors who desire an in-depth coverage of microbiology.

MICR 3455
General Microbiology Laboratory
1
* Prerequisite(s): BIOL 3400 and University Advanced Standing; BIOL 3600 recommended
* Corequisite(s): MICR 3450

Hands-on laboratory procedures that studies the methods of taxonomy and distinguishes physiology and genetics of prokaryotes (bacteria, Archaea), viruses and eukaryotic pathogens. Introduces methods used in industrial microbiology, biotechnology, and immunology and the biochemical basis of infectious diseases. Is designed for biology majors who desire an in-depth coverage of microbiology. Course Lab fee of $60 for materials, lab applies.

MICR 3550
Microbial Physiology
4
* Prerequisite(s): MICR 3450 and University Advanced Standing

Covers the structure, metabolism, and growth of microorganisms, with an emphasis on bacteria. Examines the diversity of strategies that microbes use for energy metabolism and biosynthesis of macromolecules. Highlights the integration of metabolic processes, regulatory mechanisms, and environmental changes. Explores current research topics in microbial physiology. Course fee of $50 for materials applies.

MICR 3650
Microbial Genetics
4
* Prerequisite(s): MICR 3450 and University Advanced Standing

Covers the structure, function, expression, and evolution of microbial genes and genomes, with an emphasis on bacteria. Examines microbial genome replication, the flow of information from DNA to functional RNAs and proteins, mechanisms for regulation of genome expression, and microbial gene organization including bacterial genomes, operons, plasmids, and mechanisms of horizontal gene transfer. Discusses experimental methods to construct, map, and examine mutations, measure gene expression, and genetically modify microbes. Examines DNA sequencing, analysis and annotation of microbial genomes. Course fee of $62 for materials applies.
MICR 4100 (Cross-listed with: ZOOL 4100)  
Parasitology  
4  
* Prerequisite(s): (BIOL 1620 or MICR 2060) with a C- or higher and University Advanced Standing  
Introduces the study of parasites. Emphasizes the biology of principal groups of parasites affecting humans, livestock, and other animals, including their medical economic, and ecological significance. Emphasizes parasites causing zoonotic diseases. Includes weekly laboratory experience involving identification of parasites. Course Lab fee of $25 applies.

MICR 4200  
Microbiomes  
3  
* Prerequisite(s): BIOL 1620, BIOL 3500, and University Advanced Standing  
Examines the development of lymphocyte populations involved in innate and adaptive immunity. Includes ethical considerations in the field of microbiology. Emphasizes areas of rapid growth in microbiology or current importance to society. May be repeated for a total of 9 credits toward graduation.

MICR 4300 (Cross-listed with: BIOL 4300)  
Pathogenic Microbiology  
4  
* Prerequisite(s): MICR 3450 or MICR 2060 and University Advanced Standing  
Reviews major immunological methods for medical diagnostics and other applications. Examines causes and consequences of autoimmune and lymphoproliferative diseases and immunodeficiencies. Studies properties of antigens, vaccines, antigen presenting cells and the mechanisms of antigen presentation. Reviews major immunological methods for medical diagnostics and other applications. Examines causes and consequences of autoimmune and lymphoproliferative diseases and immunodeficiencies. Probes how immune response could be manipulated for cancer therapy and transplantation medicine.

MICR 4500  
Virology  
3  
* Prerequisite(s): BIOL 3400, or BIOL 3550 or MICR 3450 or MICR 2060 and University Advanced Standing.  
Examines the fundamentals of virology. Covers viral structure, biochemistry, genomics, viral multiplication cycles in prokaryotic and eukaryotic cells, and techniques used in viral studies. Discusses viral diseases, transmission, therapy, evolution, and epidemiology.

MICR 4505  
Applied Virological Methods  
3  
* Prerequisite(s): MICR 2065 or MICR 3455; University Advanced Standing  
Covers techniques commonly used in virology to identify viruses in samples that the students will collect including nucleic acid extraction, RT-PCR, cloning, virus inoculation, plaque assays, sequencing and bioinformatics. Includes a structured research experience for students. Requires students to learn and employ lab notebook etiquette and prepare a scientific report describing their findings.

MICR 4600  
Arthropod-Borne Pathogens  
3  
* Prerequisite(s): BIOL 3400 and (MICR 2060 or MICR 3450); University Advanced Standing  
Examines the cellular and organismal interactions of arthropod-borne pathogens with their vectors that lead to transmission. Examines the cell biology related to the interactions that allow arthropods to transmit pathogens of animals, humans, insects and plants. Discusses methods for control of these pathogens in the context of Integrated Pest Management.

MICR 489R  
Student Research  
1 to 4  
* Prerequisite(s): BIOL 1620, CHEM 1210, instructor permission, and University Advanced Standing  
Provides guided research studies in microbiology under the direction of a Biology Department faculty mentor. Includes any combination of literature reviews, original research, and/or participation in ongoing departmental projects. Involves students in the methodology of original microbiology research. Requires preparation and presentation of oral and/or written reports. May culminate in results that will form the basis of the senior thesis in the major, if thesis option is chosen. May be repeated for 9 credits toward graduation.

MICR 490R  
Special Topics in Microbiology  
1 to 4  
* Prerequisite(s): BIOL 1620 and University Advanced Standing  
Examines and explores topics relating to the field of microbiology. Emphasizes areas of rapid growth in microbiology or current importance to society. May be repeated for a total of 9 credits toward graduation.

Military Science (MILS)  

MILS 1200  
Introduction to Leadership Excellence I  
2  
* Corequisite(s): MILS 145R  
Prepares leadership and individual military skills. Focuses on leadership principles, organization and time management, and writing skills. Includes ethics and code of an officer, role of an officer in the military, drill and ceremonies, fire team tactics, map reading, and basic rifle marksmanship. Lab required.

MILS 1210  
Introduction to Leadership Excellence II  
2  
* Prerequisite(s): MILS 1200 or Department Approval  
* Corequisite(s): MILS 145R  
Examines in greater depth the leadership styles found in the U.S. Army, as well as business, academic, and government organizations. Studies Army organization, active and reserve forces; winter survival, advanced fire-team and aggressor tactics. Lab required.

MILS 143R  
Military Fitness  
1  
For Army ROTC students and all other interested students. Uses the Army Physical Fitness Test to evaluate the student's performance and improvement in the areas of flexibility, strength, and endurance. Includes instruction in foot care and road marching techniques. Repeats are required. See advisor for details.
Course Descriptions

MILS 145R
Introduction to Leadership Dynamics and Techniques
1
* Prerequisite(s): Department Approval

Leadership lab for UVU Army ROTC students and other students interested in the study of leadership. Studies the dynamics of leadership of groups and individuals in various environments. Provides opportunities for students to apply leadership principles and techniques in challenging situations and conditions. Required lab for students enrolled in UVU Military Science 1000- and 2000-level classes. Students not enrolled in Army ROTC may take this class up to six credits with departmental approval.

MILS 2050
Small Unit Combat Tactics
2
Introduces cadets to the personal challenges and competencies that are critical for effective leadership by introducing cadets to the personal development of life skills, critical thinking, goal setting, time management, and physical/mental fitness.

MILS 2200
Advanced Organizational Leadership I
2
* Prerequisite(s): MILS 1210 or Dept. Approval
* Corequisite(s): MILS 245R

Builds on skills and fundamentals learned in MILS 1200 and 2210. Studies the dynamics of leadership of groups and individuals in a field environment. Provides opportunities for students to apply leadership principles and techniques in challenging situations to further prepare them for leadership positions in the military or any career field they choose.

MILS 2210
Advanced Organizational Leadership II
2
* Prerequisite(s): MILS 2200 or Dept. Approval
* Corequisite(s): MILS 245R

Builds on skills and fundamentals learned in MILS 2200 and 1210. Studies the dynamics of leadership of groups and individuals in a field environment. Provides opportunities for students to apply leadership principles and techniques in challenging situations to further prepare them for leadership positions in the military or any career field they choose.

MILS 245R
Leadership Studies
1
* Prerequisite(s): MILS 145R or instructor approval

Studies the dynamics of leadership of groups and individuals in a field environment. Provides opportunities for students to apply leadership principles and techniques in challenging situations to further prepare them for leadership positions in the military or in any career field they choose. May be repeated for up to four credits with departmental approval.

MILS 259R
Current Topics in Military Science
3
Provides exposure to emerging issues of current interest in military science. Topics vary each semester. May be repeated for a maximum of 9 credits toward graduation.

MILS 3200
Small Unit Leadership I
3
* Prerequisite(s): MILS 2210
* Corequisite(s): MILS 345R

Prerequisite to attendance at National Advanced Leadership Camp. Prepares for successful completion of camp. Studies land navigation, squad and platoon tactics, combat operations, physical fitness, and physical leadership. Lab required.

MILS 3210
Small Unit Leadership II
3
* Prerequisite(s): MILS 3200
* Corequisite(s): MILS 345R

Prerequisite to attendance at National Advanced Leadership Camp. Prepares for successful completion of camp. Studies land navigation, squad and platoon tactics, combat operations, physical fitness, and physical leadership. Lab required.

MILS 345R
Advanced Leadership Dynamics and Techniques
1
* Prerequisite(s): Departmental Approval

Leadership lab for UVU Army ROTC students and other students interested in the study of leadership. Studies the dynamics of leadership of groups and individuals in various environments. Provides opportunities for students to apply leadership principles and techniques in challenging situations and conditions. Required lab for students enrolled in UVU Military Science 3000- and 4000-level classes. Students not enrolled in Army ROTC may take this class four times for credit with department approval.

MILS 4200
The Profession of Arms I
3
* Prerequisite(s): Departmental Approval
* Corequisite(s): MILS 445R

Prepares the prospective officer for initial training and subsequent assignment into the U.S. Army. Includes overview of U.S. Army training management, military writing, administration, logistics, professionalism, and ethics. Lab required.

MILS 4210
The Profession of Arms II
3
* Prerequisite(s): MILS 4200 or Departmental Approval
* Corequisite(s): MILS 445R

Prepares the prospective officer for successful completion of Army assignments. Includes advanced U.S. Army leadership training, training management, military justice and law, pre-commissioning orientation, military briefing skills, and junior officer leadership.

MILS 445R
Transition to Officership
1
* Prerequisite(s): Departmental Approval

Leadership Lab for UVU Senior Army ROTC students. Studies the dynamics of leadership of groups and individuals in various environments. Provides opportunities for students to refine leadership skills in preparation for service with the United State Army. Required lab for students enrolled in UVU Military Science 4000-level classes. ROTC students may take this course up to 4 credits with departmental approval.

MKTG 1890
Introduction to Careers in Business
1
Explores a wide variety of professional opportunities available in business including required skills, emerging trends, economic conditions, and workforce demands. Identifies and examines professional strengths, skills, and interests that add value in the workplace. Assists emerging candidates to align their abilities with industry needs. Initiates professional networking and internship opportunities. Requires professional outreach. Includes demonstrations, role playing and application exercises.

Marketing (MKTG)

MKTG 1890
Introduction to Careers in Business
1
Explores a wide variety of professional opportunities available in business including required skills, emerging trends, economic conditions, and workforce demands. Identifies and examines professional strengths, skills, and interests that add value in the workplace. Assists emerging candidates to align their abilities with industry needs. Initiates professional networking and internship opportunities. Requires professional outreach. Includes demonstrations, role playing and application exercises.
MKTG 220G
Written Business Communication GI WE
3
Teaches written business correspondence and business reports using direct and indirect approaches. Emphasizes analysis of audience and purpose in drafting documents with accurate and clear content, organization, and style. Includes application of punctuation, grammar, and usage principles to business writing situations. Emphasizes teamwork and collaboration. Teaches how to interrelate respectfully with individuals representing cultures and perspectives other than one’s own. Lab access fee of $25 for computers applies.

MKTG 2390
Professional Business Presentations
3
Teaches business presentation skills. Emphasizes planning, developing, delivering, and evaluating business presentations. Includes informative and persuasive formats in diverse settings using a variety of media. Lab access fee of $25 for computers applies.

MKTG 259R
Current Topics in Marketing
1 to 3
* Prerequisite(s): Department Chair Approval
Provides exposure to emerging topics of current interest in marketing. Topics vary each semester. May apply a maximum of three hours toward graduation.

MKTG 281R
Marketing Cooperative Work Experience
1 to 3
* Prerequisite(s): Internship Orientation and Departmental Approval
Provides opportunities to apply classroom theory on the job. Students work as paid employees in a job that relates to their careers while enrolled at the college. Credit is determined by the number of hours a student works during the semester. Completers meet individually set goals. May be repeated for a maximum of 6 credits toward graduation. Graded Credit/No Credit.

MKTG 290R
Independent Study
.5 to 3
* Prerequisite(s): Department Chair Approval
Provides independent study as directed in reading and individual projects specifically related to the Marketing field at the discretion and approval of the Dean and/or Department Chair. May be repeated for a maximum of 6 credits toward graduation.

MKTG 3170
Digital Advertising
3
* Prerequisite(s): University Advanced Standing; MKTG 3660 Recommended
Teaches advanced digital advertising concepts and skills, including social, display, search, and video advertising as well as campaign management and decision making based on key metrics. Includes a digital advertising project and preparation for industry certifications in advertising.

MKTG 3220
Retail Management
3
* Prerequisite(s): University Advanced Standing; MKTG 3600 Recommended
Combines theoretical concepts with practical applications from a strategic management perspective. Includes lectures and discussions of current events within the retail industry to provide the primary basis for the integration of course materials with actual retail enterprise operations. Includes participation in a number of experiential learning exercises such as group and individual case analyses, outside research on the retail industry and specific retail firms, class presentations, guest speakers, and quizzes on selected retailing issues and practices. Lab access fee of $25 for computers applies. Canvas Course Mats $85/McGraw applies.

MKTG 3300
Marketing Analytics
3
* Prerequisite(s): University Advanced Standing
Provides a rigorous introduction to the exciting world of marketing analytics. Teaches the concepts, principles, and frameworks of marketing analytics from the perspective of a marketing strategist applying current marketing theory. Develops key skills required to understand current trends and make predictions based on available data.

MKTG 335G
International Marketing
3
* Prerequisite(s): University Advanced Standing; MKTG 3600 Recommended
Presents the problems of marketing in the international marketplace and how marketers approach and solve them. Focuses on concepts and principles by teaching the theory and practice of international marketing through the use of practical examples and actual case studies of international (both US and foreign) marketing organizations. Includes international marketing position of the US, market entry strategies, analysis of foreign markets, culture and marketing, product design, pricing, distribution, promotion and sales. May be delivered online. Lab access fee of $25 for computers applies.

MKTG 3460
Internal Marketing and Corporate Imaging
3
* Prerequisite(s): MKTG 3600 and University Advanced Standing
Introduces students to the fundamentals of Internal Marketing and Corporate Imaging. Focuses on internal marketing strategy, critical incident management, organizational change, employer brand, cause marketing, corporate citizenship, internal business communication and event management. Includes other topics, such as contingency planning, organizational culture, employee programs and training, motivation and internal reward programs. Includes case analysis, lectures, class discussions, group work and evaluation, videos, oral presentations, written assignments and guest speakers.

MKTG 3600
Principles of Marketing
3
* Prerequisite(s): University Advanced Standing
Studies consumers, markets, and environments from the perspective of the marketing manager. Covers the fundamentals of customer behavior, market research, marketing strategy, product management, pricing, professional selling, distribution, and promotion. Includes case analysis, lectures, class discussions, videos, oral presentations, written assignments, guest speakers, and a marketing plan project. Lab access fee of $25 applies.

MKTG 3620
Consumer Behavior
3
* Prerequisite(s): University Advanced Standing; MKTG 3600 Recommended
Includes an analysis of consumer spending and saving habits, product preferences, shopping behavior, leisure time patterns, and social change. Explores the influence of advertising, selling and fashion trends. Includes lectures, class discussions, videos, projects, case analyses, oral presentations, written assignments, and guest speakers. Lab access fee of $25 for computers applies. Canvas Course Mats $85/McGraw applies.
Course Descriptions

MKTG 3630
Services Marketing
3
* Prerequisite(s): University Advanced Standing; MKTG 3600 Recommended

Presents skills and attitudes necessary to market services and to provide good customer service. Emphasizes the marketing skills involved in marketing services and basic marketing concepts, including positive customer relations, effectively handling customer complaints, and sound customer service procedures. Focuses on developing successful service marketing strategies that can be applied in a business organizational setting. Includes lectures, guest speakers, video tapes, role plays, case analysis, oral presentations, and written assignments. Lab access fee of $25 for computers applies.

MKTG 3640
Sales Management
3
* Prerequisite(s): University Advanced Standing

Analyzes the factors that go into managing a sales force. Teaches sales management strategies and tactics which help organizations achieve their revenue goals. Examines key behavioral, technological, and managerial trends in sales. Identifies current analytical, communication, relationship, and leadership skills needed by sales managers. Demonstrates the importance of sales and sales management in terms of people employed, dollars spent, and sales generated. Canvas Course Mats $68/Chicago applies.

MKTG 3650
Professional Selling
3
* Prerequisite(s): University Advanced Standing; MKTG 3600 Recommended

Emphasizes theoretical skills in the personal selling process and the management of a sales force. Studies the recruiting, training and supervising of salespersons, organization of territories, compensation schemes, and forecasting. Includes lectures, guest speakers, video tapes, role playing, case analysis, oral presentations, and written assignments. Lab access fee of $25 for computers applies. Canvas Course Mats $49/Cengage applies. Canvas Course Mats $37/GoReact applies.

MKTG 3660
Digital Marketing
3
* Prerequisite(s): University Advanced Standing; MKTG 3600 Recommended

Provides an introduction to the many business uses of the Internet to create competitive advantage. Features discussions of e-business strategic components and practice with Web page exercises. Uses guided exercises to explore the Net, both in and out of class. Includes projects, research, and Net use in a particular industry. Emphasizes the sharing of concepts discussed in lectures, class activities, the assigned readings, and group projects. Lab access fee of $25 for computers applies.

MKTG 3670
Advertising and Promotion
3
* Prerequisite(s): University Advanced Standing; MKTG 3600 Recommended

Provides an understanding of advertising, its purposes, and production. Includes sequence of activities in preparing productive, persuasive marketing and advertising campaign plans. Covers the social, legal, and economic considerations involved in the campaign planning process. Includes lectures, class discussions, guest speakers, videos, and student presentations. Lab access fee of $25 for computers applies. Canvas Course Mats $78/McGraw applies.

MKTG 3680
Marketing with Social Media
3
* Prerequisite(s): MKTG 3600 and MKTG 3660 are recommended; University Advanced Standing

Teaches students how to use social media platforms to market products and services. Includes the creation and marketing of a blog using WordPress and engaging with a local small business to write and execute a social media marketing campaign. Teaches the fundamentals of social media marketing and the most popular platforms like WordPress, Facebook, Twitter, Pinterest, and LinkedIn.

MKTG 3685
Content Marketing
3
* Prerequisite(s): University Advanced Standing; MKTG 3660 Recommended

Covers strategic use of content to attract new customers and retain current customers. Provides experience identifying and analyzing an audience to create targeted content to achieve set business objectives. Introduces graphic design applications, video editing software, copy writing skills, email automation systems, analytics tools, and other resources. Provides training to successfully create and implement an effective content marketing strategy.

MKTG 3690
Digital Marketing Analytics
3
* Prerequisite(s): University Advanced Standing

Teaches advanced digital marketing concepts and skills related to digital marketing analytics and dashboards for web, social, and other digital platforms. Includes preparation for industry certifications in these areas.

MKTG 3700
Fundamentals of Product Management
3
* Prerequisite(s): University Advanced Standing; MKTG 3600 Recommended

Provides a rigorous introduction to the development and management of new products from a marketing perspective. Emphasizes current best practices in assessing market opportunities, determining target customers, and defining and designing a product-based solution, and measuring and validating the solution through an iterative product development process. Includes a semester project and presentation, role-plays, and case studies.

MKTG 3890
Business Career Strategy
2
* Prerequisite(s): University Advanced Standing; MKTG 1890 Recommended

Emphasizes the seamless transition to professional advancement in the workforce by developing a career narrative consistently presented on paper, online, and in person. Focuses on industry research, networking, interviews, and professional branding, including the customization of career tools, through a practicum design. Requires professional outreach. Includes demonstrations, role playing and application exercises. Lab access fee of $25 for computers applies.

MKTG 4150
Digital Marketing Capstone
3
* Prerequisite(s): MKTG 3170, MKTG 3600, MKTG 3660, MKTG 3680, MKTG 3690, and University Advanced Standing; Senior Standing is recommended.

Applies digital marketing theories, principles, and tactics to a live learning engagement project. Provides a framework for developing a complete digital marketing plan and gives students an opportunity to learn software, automation tools, and digital marketing creative strategy.
MKTG 4300
Marketing Data Science 3
* Prerequisite(s): MKTG 3300 and University Advanced Standing

Provides advanced learning in marketing data science. Emphasizes data collection and cleaning on an advanced level. Teaches advanced concepts, principles, and frameworks of marketing data science from the perspective of a marketing strategist applying current marketing theory. Builds on introductory skills to deepen understanding of current trends.

MKTG 4400
Competitive Intelligence 3
* Prerequisite(s): MKTG 3600 and University Advanced Standing

Teaches Competitive Intelligence (CI), the study of processes and techniques leading to business analysis applied to industry and company investigation. Overviews the Competitive Intelligence process including information collection, intelligence analysis, and intelligence process assessment.

MKTG 459R
Advanced Topics in Marketing 1 to 3
* Prerequisite(s): University Advanced Standing; MKTG 3600 Recommended

Provides exposure to emerging topics of current interest in marketing. Topics vary each semester. May apply a maximum of 12 hours toward graduation.

MKTG 4600
Customer Experience 3
* Prerequisite(s): University Advanced Standing; MKTG 3600 Recommended

Covers managerial uses of marketing research in formulating marketing strategy. Includes determination of situations requiring research, appraisal of alternative research methods, and evaluation of studies. Presents theoretical concepts in research methodology. Includes lectures, class discussions, group projects, case analyses, oral presentations, written assignments, and speakers. Lab access fee of $25 for computers applies. Canvas Course Mats $78/McGraw applies.

MKTG 4610
Sales Operations 3
* Prerequisite(s): University Advanced Standing; MKTG 3600 Recommended

Provides students with an understanding of Sales Operations and the key performance indicators driving professional sales organizations. Instills a data-driven perspective necessary for responding to organizational sales and revenue challenges. Develops important skills in forecasting, report and dashboard development, and territory analysis and design, as well as proficiency in Sales Force Automation and CRM software.

MKTG 4620
Advanced Professional Selling 3
* Prerequisite(s): MKTG 3650 and University Advanced Standing


MKTG 4650
Marketing Management Capstone 3
* Prerequisite(s): MKTG 3600, MKTG 3650, MKTG 3660, MKTG 3700, and MKTG 335G. University Advanced Standing; Senior Standing is recommended.

Presents detailed marketing analysis skills, planning and control of various marketing mix variables, target markets, and the marketing environment using both oral and written case studies. Includes lectures, class discussions, videos, projects, case analyses, oral presentations, written assignments, and guest speakers.

MKTG 481R
Marketing Internship 1 to 3
* Prerequisite(s): Departmental Approval and University Advanced Standing

For upper-division students working toward a Bachelor of Science Degree in Marketing. Provides a transition from school to work where learned theory is applied to actual practice through meaningful on-the-job experience. May be repeated for a maximum of 6 credits toward graduation. May be graded credit/no credit.

MKTG 482R
Sales Internship 1 to 8
* Prerequisite(s): Departmental Approval and University Advanced Standing

For upper-division students working toward a Bachelor of Science Degree in Marketing. Provides a transition from school to work where learned theory is applied to actual practice through meaningful on-the-job experience. May be repeated for a maximum of 6 credits toward graduation. May be graded credit/no credit.

MKTG 483R
Digital Marketing Internship 1 to 8
* Prerequisite(s): Departmental Approval and University Advanced Standing

For upper-division students working toward a Bachelor of Science Degree in Marketing. Provides a transition from school to work where learned theory is applied to actual practice through meaningful on-the-job experience. May be repeated for a maximum of 8 credits toward graduation. May be graded credit/no credit.

MKTG 4980
Research Seminar in Marketing 3
* Prerequisite(s): Admission into any graduate program in business management, leadership, or current business topics. Repeatable for up to six credits toward graduation.

MKTG 4990R
Independent Study 1 to 3
* Prerequisite(s): Department Chair Approval

Provides independent study as directed in reading and individual projects specifically related to the Marketing field at the discretion and approval of the Chair. May be repeated for a maximum of 6 credits toward graduation.

MKTG 494R
Seminar 5 to 3
* Prerequisite(s): Department Chair Approval and University Advanced Standing

Provides short courses, workshops, and special programs in business management, leadership, or current business topics. Repeatable for up to six credits toward graduation.

MKTG 4640
Technology Marketing and Customer Experience 3
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business

Teaches conceptual frameworks and analytical tools for marketing decision making in technology businesses from a cross-functional and strategic orientation. Focuses on understanding user needs, technology standards and network externalities, forecasting and planning, solution design and architecture, platform strategy, and managing adoption. Uses cases, assignments, and projects. Examines the use of marketing analytics for intelligence gathering, analysis, and decision making. Teaches how to develop high-value solutions for users based on a deep understanding of their needs, and how to communicate the value of and provide access to those solutions through marketing technology.

MKTG 6600
Marketing Strategy 3
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business

Analyzes current marketing management problems. Emphasizes marketing concepts, research techniques, decision making, and marketing strategy development.
## Course Descriptions

### MKTG 6620
Marketing Research and Analytics  
3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business and MKTG 6600  
Explores tools and analysis techniques related to customer relationship management. Focuses on "thick" data research, including: ethnography, social listening, interviewing, and laddering. Uses research tools, such as survey design, web analytics, and eye-tracking technology, to collect and analyze data through factor analysis, cluster analysis, classification trees, and multidimensional scaling.

### MKTG 6640
Brand/Product/Services Management  
3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business and MKTG 6600  
Focuses on the practice of advanced marketing management topics including: brand management, product management, product development, services marketing, pricing and conjoint analysis. Integrates forecasting including diffusion models and other tactics, resource allocation, and managing profit and loss statements.

### MKTG 6660
Marketing Channels and Communications  
3  
* Prerequisite(s): Admission into any graduate program in the Woodbury School of Business and MKTG 6600  
Explores key advanced marketing practices related to delivering and communicating value. Examines retailing, e-commerce, websites, personal selling, lead generation, digital marketing, as well as promotion and campaign management.

### MKTG 6720
Creativity and Innovative Problem Solving  
1.5  
* Prerequisite(s): Acceptance into the Woodbury School of Business MBA program  
Applies an understanding of the nature of creativity and expansive problem solving within the business environment through projects, simulations and/or case study. Provides awareness about individual and organizational characteristics which impact creative thinking and limit imaginative solutions.

### MUSC 101H
Introduction to Music  
3  
Develops an appreciation and understanding of music. Studies melody, harmony, form, and rhythm. Focuses on the historical development of Western art music, including the contributions of major composers. Examines musical genres such as the chant, motet, madrigal, concerto grosso, opera, cantata, oratorio, symphony, music drama and tone poem. Practices the aural identification of specific compositions.

### MUSC 102G
Introduction to World Music  
2  
Explores diverse music from around the world. Includes a study of melody, harmony, form, and rhythm in international historical and cultural contexts. Involves a significant number of listening assignments and discussions over the various ways music functions within societies. Pays particular attention to the ways in which musical traditions adapt to changes within communities on a local and global scale.

### MUSC 1030
American Popular Music  
3  
Studies the emergence, development, and characteristics of American music including Jazz, Blues, Country, Rock, Motown, Hip-Hop, and other popular styles. Examines the contributions of European, African, Latin and other cultural traditions on American popular music. Studies the influences of mass media and technology. Examines the marketing and dissemination of popular music by the music industry. Studies the role of popular music as a symbol of race, class, gender, and generation. Fulfills the Fine Arts general education distribution requirement and addresses the Intellectual and Practical Skills Foundation essential learning outcomes of qualitative reasoning.

### MUSC 1050
Beginning Piano I  
2  
Provides group instruction for students with little or no piano and note-reading experience. Covers melodic and rhythmic notation, key recognition, and major and minor finger patterns. Teaches basic harmonization, transposition and improvisation. Course Lab fee of $17 for equipment applies.

### MUSC 1060
Beginning Piano II  
2  
Builds on the skills learned in Beginning Piano I. Studies notation, scales, chord progressions, sight-reading, basic harmonization, transposition, and improvisation. Course lab fee of $17 applies.

### MUSC 1100
Fundamentals of Music  
3  
Examines the fundamentals of music theory such as pitch notation, meter, rhythm, time signatures, intervals, major and minor scales, key signatures, and triads. Fulfills the Fine Arts general education distribution requirement and addresses essential learning outcomes of quantitative reasoning. Lab access fee of $10 for computers applies.

### MUSC 1105
Fundamentals for Music Majors/Minors  
3  
* Prerequisite(s): Music major or minor or department approval. Completed music theory placement exam.  
This course is designed to prepare music majors and minors for Theory I. The course covers basic concepts of musical construction including pitch, rhythm, basic harmony, scales, keys, and intervals.

### MUSC 1110
Music Theory I  
3  
* Prerequisite(s): Music majors only or department approval. Complete music theory diagnostic exam. Students who do not earn at least 80% on the music department theory diagnostic exam must complete MUSC 1105 before MUSC 1110.  
* Corequisite(s): MUSC 1130  
Studies the fundamentals of music theory including elementary harmony, primary and secondary triads with inversions, non-harmonic tones and modulation.

### MUSC 1115
Music Notation and Score Preparation  
1  
* Prerequisite(s): Music major or minor only.  
Introduces notation software for creating music scores. Includes symphonic layouts, lead sheets, vocal/choral notation, and drum' guitar notation. Explores complex techniques designed to speed notation process and control the nuances of the music's look to produce clear, professional-quality music.

### MUSC 1120
Music Theory II  
3  
* Prerequisite(s): MUSC 1110  
* Corequisite(s): MUSC 1140  
Provides further study of the fundamentals of music theory. Covers the analysis and composition of music using leading tone triads, seventh chords, secondary dominants, sequences, voice leading and modulation.
MUSC 1130
Aural Skills I
1
* Corequisite(s): MUSC 1110
Provides training in the aural identification of intervals and triads. Practices rhythmic dictation in simple meters, and melodic dictation of simple melodies. Studies the solfege movable "Do" system.

MUSC 1140
Aural Skills II
1
* Prerequisite(s): MUSC 1130
* Corequisite(s): MUSC 1120
Provides further training in the aural identification of intervals and triads. Practices rhythmic dictation in simple and compound meters, and melodic dictation in major and minor keys. Studies the solfege movable "Do" system.

MUSC 1150
Group Piano I
1
* Corequisite(s): MUSC 1110 recommended
Develops fundamental piano skills including five-finger major and minor scales, arpeggios, chord progressions, sight-reading, and performance. Prepares students for music major keyboard examinations. Course Lab fee of $17 for equipment applies.

MUSC 1160
Group Piano II
1
* Prerequisite(s): MUSC 1150 or equivalent proficiency examination
* Corequisite(s): MUSC 1120 recommended
Builds on the skills learned in Group Piano I. Develops facility in two-octave major scales, arpeggios, chord progressions, sight-reading, harmonization, transposition, and performance. Prepares students for music major keyboard examinations. Course Lab fee of $17 for equipment applies.

MUSC 1170
Group Guitar I
2
Teaches fundamental skills used in playing popular guitar styles. Covers essential left and right hand techniques as well as basic musical rudiments.

MUSC 1180
Group Guitar II
2
* Prerequisite(s): MUSC 1170
Develops a variety of right and left hand techniques. Teaches both standard and tablature-style notation. Provides solo and ensemble performance opportunities.

MUSC 1236
Survey of Jazz History
3
Introduces the content, history, and cultural contexts of jazz music. Examines the spread, evolution, and exportation of jazz in relation to the growth of radio and the recording industry. Includes lecture, demonstration, listening, and group discussion of musical examples and cultural backgrounds.

MUSC 124R
UVU Concert Choir
1
Provides group training in the various styles of choral literature. Basic skills in note reading, matching pitch and blending with the ensemble expected. Requires participation at scheduled performances. May be repeated as desired.

MUSC 125R
University Band
1
Provides group training in the various styles of band literature. Requires participation at scheduled performances. May be repeated as desired.

MUSC 1350
Studio Conducting
1
* Prerequisite(s): BM Commercial Music students only
Provides an introduction to the technique of conducting for a commercial musician. Focuses on baton technique and score reading. Introduces instrumental transposition.

MUSC 1390
Survey of Recording Techniques
1
* Prerequisite(s): Music majors or minors only. Not applicable for BM Commercial Music students.
Examines fundamental techniques of recording solo, small ensemble, and large ensemble music. Teaches basic use of microphones, digital interface, and signal path. Introduces editing and mixing skills for post production. Surveys applications of contemporary technology for remote performance.

MUSC 1400
Music Technology I
2
Examines the fundamental concepts and usage of technologies in music. Studies basic analog and digital signal paths and audio basics. Explores the basics of subtractive synthesis. Introduces the use of the MIDI protocol (Musical Instrument Digital Interface) and the basics of a Digital Audio Workstation (DAW). Software fee of $22 applies. Lab access fee of $10 for computers applies.
MUSC 1800  
Introduction to Music Education  
3  
Introduces the music education profession including history, philosophy, professional communities, career opportunities, and music teaching standards. Emphasizes the place of music and the arts in education, the role of government in schools, meeting the challenges of 21st century education. Covers personal, professional, and musical skills necessary for successful music teaching and learning. Requires observation of music classrooms in public and private school settings outside of scheduled class time. Includes micro teaching and a final portfolio and interview which culminates in matriculation to the music education degree.

MUSC 1810  
Contemporary Theory and Improvisation I  
3  
Studies the fundamental building blocks of jazz and contemporary music theory and how each concept can be applied in performance, improvisation, analysis, arranging, and composition. Introduces standard practices of contemporary theory and aural skills including chord symbology, chord-scale theory, basic chord function, target tone strategies, voice-leading, and various applications of tension and release.

MUSC 2001  
Diction for Singers I  
1  
Teaches the International Phonetic Alphabet (IPA) as it pertains to the English, Italian and Latin languages. Applies IPA directly to song literature for each language. Provides basic reading, comprehension, and grammar skills in the Italian and Latin languages. Course lab fee of $15 for support applies.

MUSC 2002  
Diction for Singers II  
1  
Teaches proficiency in the International Phonetic Alphabet (IPA) as it pertains to the German and French languages. Applies IPA directly to song literature for each language. Provides basic reading, comprehension, and grammar skills in each language. Course lab fee of $15 for support applies.

MUSC 2100  
Teaching Music for Children FF  
3  
For Elementary Education students and other interested students and community members. Introduces concepts and techniques of music education applicable to the elementary school classroom. Teaches concepts and skills through a combination of readings and lectures. Applies vocal and instrumental basics and class projects. Addresses the Utah State Core Curriculum for music for the elementary school.

MUSC 2110  
Music Theory III  
3  
* Prerequisite(s): MUSC 1120  
Studies the diatonic and chromatic materials of common practice music theory. Covers the analysis and composition of music using chromatic chords such as secondary dominants, diminished seventh chords, Neapolitan chords, and Italian, French and German sixth chords. Practices multiple methods of modulation.

MUSC 2125  
Music Theory IV  
3  
* Prerequisite(s): MUSC 2110  
Surveys compositional techniques used by post-tonal composers. Builds on the knowledge and skills learned in the tonal music theory classes.

MUSC 2130  
Aural Skills III  
1  
* Prerequisite(s): MUSC 1140  
* Corequisite(s): MUSC 2110  
Provides training in the aural identification of intervals, triad inversions and chord progressions. Practices harmonic dictation of syncopated rhythms and asymmetric and mixed meters, and melodic dictation of disjunct melodies and two-part dictation. Studies the solfege movable "Do" system in major, minor keys and modes with coordinating Kodaly hand signs.

MUSC 2140  
Aural Skills IV  
1  
* Prerequisite(s): MUSC 2130  
Provides further training in the aural identification of intervals, triad inversions and chord progressions. Practices harmonic dictation of complex rhythm patterns and asymmetric and mixed meters. Teaches four-part harmonic dictation. Completes study of the solfege movable "Do" system.

MUSC 2150  
Group Piano III  
1  
* Prerequisite(s): MUSC 1160 or equivalent proficiency examination  
* Corequisite(s): MUSC 2110 recommended  
Builds on the skills learned in Group Piano II. Develops further facility in one-octave harmonic minor scales, arpeggios, chord progressions, sight-reading, harmonization, transposition, improvisation, and accompanying. Prepares students for music major keyboard proficiency examinations. Course lab fee of $17 for equipment applies.

MUSC 2160  
Group Piano IV  
1  
* Prerequisite(s): MUSC 2150 or equivalent proficiency examination  
* Corequisite(s): MUSC 2125 recommended  
Builds on the skills learned in Group Piano III. Develops facility in two-octave major and harmonic minor scales, arpeggios, chord progressions, sight-reading, harmonization, transposition, improvisation in classical and contemporary styles, playing contemporary and jazz chord charts, and accompanying. Prepares students for music major keyboard proficiency examinations. Course lab fee of $17 for equipment applies.

MUSC 2170  
Jazz and Contemporary Keyboard Skills I  
1  
* Prerequisite(s): MUSC 1160 or demonstration of equivalent keyboard proficiency  
Introduces and develops chord construction, common jazz and contemporary keyboard voicings, basic rhythmic comping for jazz and popular styles with an emphasis on interpreting lead sheets and chord charts. Identify chord symbols, voice-leading through common chord progressions, building basic voicing structures, recognizing common song forms, and performing simple improvised accompaniment on the keyboard. Course lab fee of $17 applies.

MUSC 2180  
Jazz and Contemporary Keyboard Skills II  
1  
* Prerequisite(s): MUSC 2170 or demonstration of equivalent keyboard proficiency  
Builds on the jazz and contemporary keyboard skills developed in MUSC 2170. Teaches open and closed position chord voicings using upper extensions. Introduces basic quartal voicings. Further develops hand independence through the performance of composed and improvised melodies in the right hand while comping with the left hand. Demonstrates sight-reading skills as applied to chord charts and lead sheets. Surveys advanced melodic and harmonic techniques over the Blues, ii-V-I, dominant cycles, tritone substitutions, diminished passing chords, and turnaround with secondary dominants.
MUSC 2190
Rhythm Section Workshop 1
* Prerequisite(s): Music majors and minors only
Surveys common rhythm section practices for a contemporary ensemble. Explores historically important rhythm sections in American popular music, common arranging and orchestration choices, communication strategies, vocabulary, and notation for a rhythm section. Provides techniques for developing a stronger working relationship with rhythm section performers as a non-rhythm section performer, composer, producer, or songwriter.

MUSC 2210
Contemporary Theory and Improvisation II 2
* Prerequisite(s): MUSC 1810
Builds on skills and knowledge developed in MUSC 1810. Further develops exercises and practice strategies based on the surveyed concepts in MUSC 1810 applied to real-world scenarios. Develops recognition and application of theoretical concepts through transcription and analysis in addition to performance. Introduces common academic systems of solo analysis including the methodologies of Jerry Coker and David Baker. Reinforces aural skills through call-and-response activities and masterclass-style lectures. Introduces strategies for learning repertoire, developing ear-training, applying advanced theoretical concepts, developing recall, and incorporating self-assessment into their practice.

MUSC 2350
Fundamentals of Conducting 2
* Prerequisite(s): MUSC 1120
Provides an introduction to the basics of conducting. Focuses on baton technique, score reading, interpretation and rehearsal.

MUSC 2400
Digital Audio Workstation 2
* Prerequisite(s): MUSC 1402 or Music Technology Certificate major
Explores the Digital Audio Workstation, including shortcuts and commands for maximizing effectiveness and understanding. Covers the basics of the software interface, audio and MIDI recording and editing, effects, and creating a final product. Software fee of $22 applies. Lab access fee of $10 for computers applies.

MUSC 2420
Music Production Basics 2
* Prerequisite(s): MUSC 2400
Introduces the basics of music production. Analyzes various aspects of contemporary music including sound and part selection for each instrument in the rhythm section. Discusses various recording and production techniques used in current music productions. Introduces students to technical production tools and techniques including but not limited to phasers, chorus, flange, delay, echo, reverb, compression, eq, filters, and distortion. Introduces the students to mixing and steps required to produce a final product. Software fee of $22 applies. Lab access fee of $10 for computers applies.

MUSC 245R
Private Lessons II 1
Offers twelve 60-minute private lessons. Designed to meet the individual needs of the student in developing skills and techniques. Does not fulfill music major degree requirements. May be repeated as desired. Course fee of $443 for support applies.

MUSC 250R
Private Lessons for Music Majors 1
* Prerequisite(s): Music major entrance audition required.
* Corequisite(s): MUSC 251R
Offers twelve 60-minute private lessons for music majors. Focuses on the individual needs of the student in developing skills and techniques. Requires participation in weekly performance class. Includes juried evaluations. May be repeated as desired. Course fee of $443 for support applies.

MUSC 250R
Private Lessons II 1
* Prerequisite(s): MUSC 250R
Provides additional performance experience for music majors. Develops an ability to offer and receive constructive criticism. Explores performance-related topics such as practice strategies, performance anxiety, interpretive phrasing, technical mastery, memorization and jury preparation. May be repeated for a maximum of 12 credits toward graduation.

MUSC 250R
Internship in Music I 1 to 8
* Prerequisite(s): Departmental Approval
Provides an opportunity for students to receive college credit and explore career options in music by working in music-related fields. Applies academic concepts to actual work experiences. Requires approval of faculty sponsor and completion and acceptance of application. Requires completion of an orientation, completion of Master Agreement between UVU and employer, completion of goals and tasks as required by academic department, and completion of final evaluation. May be repeated for a total of 8 credits toward graduation. May be graded credit/no credit.

MUSC 290R
Independent Study 1 to 3
* Prerequisite(s): Instructor permission and advisor approval
Individual projects to be negotiated by student and instructor on a case-by-case basis to be approved by the departmental advisor. May be repeated for a maximum of 4 credits toward graduation.

MUSC 3005
Vocal Literature I 1
* Prerequisite(s): (MUSC 1120 or department audition) and University Advanced Standing
Presents an overview of the English and Italian art song literature from 1500 to present. Provides performance training of stylistic elements appropriate for each time period.

MUSC 3006
Vocal Literature II 1
* Prerequisite(s): MUSC 3005 and University Advanced Standing
Presents an overview of the French and German art song literature from 1500 to present. Provides performance training of stylistic elements appropriate for each time period.

MUSC 3025
Songwriting I 2
* Prerequisite(s): MUSC 1400 and University Advanced Standing
Studies the creative processes and techniques involved in commercial songwriting. Covers the essential elements of lyric writing, setting lyrics to melody, and utilizing functional harmony. Explores the process of developing a production plan for a song demo. Software fee of $22 applies. Lab access fee of $10 for computers applies.
Course Descriptions

MUSC 3026  
**Songwriting II**  
2  
* Prerequisite(s): MUSC 3025 and University Advanced Standing

Expands on the skills learned in **Songwriting I**. Focuses on the demands of commercial music projects. Discusses the professional expectations of writing on demand in a specific musical style, genre, and time period. Addresses the importance of arranging, pre-production, and session planning as a songwriter. Software fee of $22 applies. Lab access fee of $10 for computers applies.

MUSC 3030  
**Jazz and Contemporary Arranging I**  
2  
* Prerequisite(s): MUSC 1402, MUSC 2210 and University Advanced Standing

Develops skills in arranging for small jazz and contemporary instrumental ensembles. Introduces common publishing practice for engraving and notation. Develops concepts and techniques to write for 1-3 voices and rhythm section. Arrange a composition for a small instrumental ensemble and develop strategies for planning, executing, and editing a successful arrangement quickly. Create a custom engraving template for their preferred notation software. Focuses on the application of texture, harmonization, orchestration, voicing structures, form, and style. Lab access fee of $10 applies. Software fee of $22 applies.

MUSC 3031  
**Jazz and Contemporary Arranging II**  
2  
* Prerequisite(s): MUSC 3030 and University Advanced Standing

Expands on the concepts discussed in MUSC 3030. Expand arranging abilities to include advanced techniques for large instrumental jazz ensembles. Introduces the use of voicing structures, orchestration, scoring, and arranging as it applies to each instrumental section. Analyze scores written by prolific composers in the idiom and compose in the style of each. Offers students the opportunity to create original arrangements for large jazz ensemble to be read by the UVU Jazz Orchestra.

MUSC 306R  
**Advanced Keyboard Skills**  
1  
* Corequisite(s): MUSC 250R or MUSC 450R or MUSC 455R

Provides advanced study in piano technique, sight-reading, and ensemble skills. Develops pedagogical skills through masterclasses and teaching beginners. May be repeated for maximum of 12 credits toward graduation. Course lab fee of $17 applies.

MUSC 3120  
**Form and Analysis**  
3  
* Prerequisite(s): MUSC 2110 and University Advanced Standing

Explores the structure, meaning and organization of music. Concentrates on the standard practices of European-sphere music since 1600. Teaches techniques for understanding and classifying musical structure. Places techniques and knowledge from the first three semesters of music theory into a comprehensive whole.

MUSC 3150  
**Advanced Instrumental Conducting**  
2  
* Prerequisite(s): MUSC 2350 and University Advanced Standing

Teaches advanced baton techniques, score preparation and basic rehearsal procedures for instrumental ensembles.

MUSC 320R  
**Masterworks Chorale**  
1  
* Prerequisite(s): Audition

Provides group training in the various styles of choral literature. Requires attendance at scheduled performances. May be repeated as desired. Course fee of $20 for support applies.

MUSC 322R  
**Chamber Choir**  
1  
* Prerequisite(s): Audition

For the advanced singer desiring experience in choral performance. Provides the opportunity of performing in a small group of select singers. Studies music of various styles and periods. Requires participation in concerts, programs, and tours. May be repeated as desired. Course fee of $20 for support applies.

MUSC 327R  
**Deep Green-Tenor/Bass Choir**  
1  
* Prerequisite(s): Audition

Provides male vocalists with advanced individual and ensemble training. Includes emphasis on auditioning, rehearsal and performance etiquette, and ensemble skills and dynamics. Requires participation in concerts, programs and tours. May be repeated as desired. Course Lab fee of $15 for support applies.

MUSC 328R  
**Emerald Singers-Soprano/Alto Choir**  
1  
* Prerequisite(s): Audition

Provides female vocalists the opportunity to perform in a select group of treble singers. Studies music of various styles and periods. Requires participation in concerts, programs, and tours. May be repeated as desired. Course fee of $20 for support applies.

MUSC 330R  
**Wind Symphony**  
1  
* Prerequisite(s): Audition

Improves musical skills by performing significant wind and percussion repertoire. Examines the standard band repertoire as well as more contemporary literature. Requires attendance at all concerts, performances, tours and acquisition of performance attire. May be repeated as desired.

MUSC 331R  
**Percussion Ensemble**  
1  
* Prerequisite(s): Audition

Provides percussion ensemble experience. Emphasis on sight reading and music performance skills. Attendance is expected at all concerts, rehearsals, and tours. May be repeated as desired.

MUSC 332R  
**Jazz Orchestra**  
1  
* Prerequisite(s): Audition

Provides the advanced instrumentalist the opportunity to perform traditional and contemporary repertoire for large jazz ensemble. Emphasizes improvisational and sight-reading skills. Requires attendance at all performances. May be repeated as desired.

MUSC 333R  
**Small Jazz and Commercial Ensembles**  
1  
* Prerequisite(s): Audition

Provides the advanced instrumentalist the vocalist the opportunity to perform in small ensembles specializing in jazz and other commercial styles including, pop, rock, country, funk, reggae, hip hop, etc. Emphasizes improvisation, rhythmic skills, and knowledge of harmony. Requires attendance at all performances. May be repeated as desired.

MUSC 334R  
**Pep Band**  
1  
* Prerequisite(s): Audition

Provides opportunities to perform band literature for athletic events, including home games, off-campus tournaments, and championships. Requires participation at all rehearsals and assigned games. May be repeated as desired.

MUSC 3409  
**Secondary General Music Methods**  
2  
* Prerequisite(s): University Advanced Standing

Introduces materials and techniques for general music classes; computer-assisted instruction and integrated technology; facility with accompanying folk instruments; philosophic foundations of music education; and program development and instructional design.
### Course Descriptions

**MUSC 3410**  
**Elementary Music Methods I**  
2  
* Prerequisite(s): MUSC 2110 and University Advanced Standing  
Teaches the sequence, tools, materials, and philosophy of teaching musical concepts to children in grades K-3. Develops skill on classroom instruments.  

**MUSC 3411**  
**Elementary Music Methods II**  
2  
* Prerequisite(s): MUSC 2110, MUSC 3410, and University Advanced Standing  
Teaches the sequence, tools, materials, and philosophy of teaching musical concepts to children in grades 4-6. Develops skill on classroom instruments.  

**MUSC 3412**  
**Music Career Development**  
3  
* Prerequisite(s): MUSC 2110 and University Advanced Standing  
Examines entrepreneurial skills required for success in the music industry. Covers the music businesses and the current trends within the industry. Develops assets for student success including EPK, Bio, website and resume’s/CV’s. Explores the development of funding sources for music projects and basic music accounting practices. Covers sync fees, performance rights organizations (PRO), and other royalties. Encourages students to explore and develop multiple streams of income. Lab access fee of $10 for computers applies.  

**MUSC 3415**  
**Instrumental Pedagogy and Literature I**  
2  
* Prerequisite(s): University Advanced Standing  
* Prerequisite(s) or Corequisite(s): MUSC 2110 or department audition  
Provides students the opportunity to study the pedagogy and literature of their major instrument. Examines various pedagogical approaches and incorporates in-class teaching demonstrations. Includes the selection of appropriate solo and chamber literature for beginning and intermediate levels.  

**MUSC 3416**  
**Instrumental Pedagogy and Literature II**  
2  
* Prerequisite(s): MUSC 3415 and University Advanced Standing  
Provides students the opportunity to study the pedagogy and literature of their major instrument. Examines various pedagogical approaches and incorporates in-class teaching demonstrations. Includes the selection of appropriate solo and chamber literature for advanced levels.  

**MUSC 3450**  
**Music History and Literature I WE**  
3  
* Prerequisite(s): MUSC 2125 and University Advanced Standing  
Covers the history of European music from ancient times to the Classic era. Surveys periods, genres, composers, works, performance practice, and sources. Emphasizes musical meaning, style, and interpretation.  

**MUSC 3451**  
**Music History and Literature II WE**  
3  
* Prerequisite(s): MUSC 3450 and University Advanced Standing  
Covers the history of European-sphere music from the Classic era to the present. Surveys periods, genres, composers, works, performance practice and sources. Emphasizes musical meaning, style and interpretation.  

**MUSC 349G**  
**Global Musical Styles and Ideas**  
3  
* Prerequisite(s): MUSC 1110 and University Advanced Standing  
Investigates musical traditions of the world; equips students with requisite skills for understanding and analyzing music as an art in historical and cultural contexts using an integrative approach that includes selected styles and genres, critical reading and writing skills, and mastery of conceptual issues related to the universality and interconnectedness of music.  

**MUSC 360R**  
**Commercial Music Private Lessons**  
1  
* Prerequisite(s): Admittance into Music Technology Certificate of Proficiency or MUSC 250R and University Advanced Standing  
Offers twelve 30-minute private lessons. Focuses on the individual needs of the student, developing skills and techniques in the commercial industry including production, songwriting, arranging, and improvisation. May be repeated as desired. Course fee of $270 for private instruction applies.  

**MUSC 3620**  
**Percussion Techniques I**  
1  
* Prerequisite(s) or Corequisite(s): MUSC 2110  
Prepares music education majors in the pedagogy and methods of percussion instruments for beginning players.  

**MUSC 3621**  
**Percussion Techniques II**  
1  
* Prerequisite(s): MUSC 3620 and University Advanced Standing  
Prepares music education majors in the pedagogy and methods of percussion instruments for intermediate players in secondary school programs.  

**MUSC 3630**  
**Vocal Techniques**  
1  
* Prerequisite(s): University Advanced Standing  
* Prerequisite(s) or Corequisite(s): MUSC 2110  
Provides an introduction to vocal pedagogy and basic choral concepts for music education majors. Focuses on principles of healthy vocal production. Covers vocal anatomy, breath energy, phonation, resonance, articulation, registration, warm-ups, basic diction, ensemble singing, and working with adolescent voices. Involves solo and ensemble singing, rehearsal conducting, and private teacher observations.  

**MUSC 3649**  
**String Techniques I**  
1  
* Prerequisite(s): University Advanced Standing  
* Prerequisite(s) or Corequisite(s): MUSC 2110  
Studies the pedagogical process of a beginning and intermediate string class. Covers strategies for the recruitment and organization of an orchestra program. Discusses the selection and maintenance of string instruments, accessories and supplies.  

**MUSC 3650**  
**String Techniques II**  
1  

**MUSC 3659**  
**Woodwind Techniques I**  
1  
* Prerequisite(s): University Advanced Standing  
* Prerequisite(s) or Corequisite(s): MUSC 2110  
Teaches basic performing skills on the clarinet and saxophone including tone production, articulation, registers and fingerings. Studies pedagogical processes, methods and literature. Covers strategies for the recruitment and organization of a band program. Discusses instrument selection and maintenance, reeds and accessories.
MUSC 3660
Woodwind Techniques II
1
* Prerequisite(s): MUSC 3659 and University Advanced Standing

Provides performance instruction on the flute, oboe, and bassoon. Studies pedagogical processes and choices for method books and band literature. Covers the planning and execution of effective rehearsals. Discusses instrument selection and maintenance, reeds and accessories.

MUSC 3679
Brass Techniques I
1
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): MUSC 2110

Teaches basic performing skills on the trumpet and French horn. Studies the assembly, mechanism, embouchure formation, tone, breath control, intonation and fingerings of each instrument. Discusses brand selection, accessories, equipment supplies and instrument care. Covers pedagogical processes, repertoire and method resources.

MUSC 3680
Brass Techniques II
1
* Prerequisite(s): MUSC 3679 and University Advanced Standing

Provides basic performance instruction on the trombone, euphonium and tuba. Studies the assembly, mechanism, embouchure formation, tone, breath control, intonation and fingerings of each instrument. Discusses rehearsal strategies and literature selection. Discusses choices for instrument brands, accessories and supplies.

MUSC 3690
Jazz Techniques
1
* Prerequisite(s): Music major and University Advanced Standing

Provides a practical study of basic jazz performance, improvisation, transcription, styles, history and rehearsal techniques. Prepares students to teach jazz.

MUSC 370R
Symphony Orchestra
1
* Prerequisite(s): Audition

Provides opportunity to improve musical performance skills by participating in orchestra. Studies and performs serious concert literature from all periods of music history. Requires attendance at all concerts, rehearsals, tours and acquisition of performance attire. May be repeated as desired.

MUSC 372R
Chamber Orchestra
1
* Prerequisite(s): Audition

Provides smaller orchestra experience. Improves individual and ensemble performance skills. Studies and performs serious concert literature from all periods of music history. Audition is required. May be repeated as desired.

MUSC 373R
Advanced Small Ensembles
1
* Prerequisite(s): Instructor Approval

Provides opportunities for performing in small groups of select musicians. Studies music of various styles and periods. Some public performances will be required. May be repeated as desired.

MUSC 379R
Studio Recording Workshop
1
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): MUSC 1400

Provides hands-on opportunities in a recording studio. Examines the studio environment including: microphone types, polar patterns, stereo miking techniques, analog patchbay usage, microphone preamps and general studio procedures. Provides opportunities for students to record various student compositions and projects. Explores the Dante protocol and its usage in the studio. May be repeated for a maximum of 6 credits toward graduation. Lab access fee of $10 for computers applies. Software fee of $100 for computers applies.

MUSC 3800
Junior Recital
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): MUSC 450R or MUSC 455R

Provides a solo recital experience for students preparing a portfolio of performances of various styles and periods. Some public performances will be required. May be repeated as desired.

MUSC 4130
Scoring and Arranging
2
* Prerequisite(s): MUSC 3120 and University Advanced Standing

Studies techniques of scoring and arranging music for orchestra, band, choir, and small ensembles. Software fee of $22 applies. Course Lab fee of $10 for computers applies.

MUSC 4150
Advanced Choral Conducting
2
* Prerequisite(s): MUSC 2350 and University Advanced Standing

Develops advanced baton techniques, score preparation and basic rehearsal procedures for choral organizations. Explores advanced tools of coordination and musicianship, and covers communication and score analysis.

MUSC 420R
Film Scoring
2
* Prerequisite(s): MUSC 410R and University Advanced Standing

Covers theoretical concepts, creative and collaborative methods, and practical experiences in the process of creating music for film and video. Includes elements of film score history, dramatic structure, collaboration, spotting, musical structure and form (including leitmotif and variation), timing, temp tracks, digital mockups and production demos, recording and mixing film music, copyright and contractual concerns, and building a portfolio of musical scoring work. Includes lecture/discussion of theoretical principles, analysis of masterworks in the film music genre, and production of a student-scored film/video clip. May be repeated as desired. Software fee of $100 applies. Course Lab fee of $10 for computers applies.

MUSC 4220
Choral Literature and Methods
2
* Prerequisite(s): MUSC 2350 and University Advanced Standing

Studies the process of developing a successful school choral program. Analyzes the quality of choral literature and its suitability for various skill levels. Studies effective rehearsal management strategies. Examines current resources and systems for choral program administration. Develops skills in singing, score analysis, conducting techniques, section leading, and microteaching.
MUSC 4221
Advanced Choral Literature and Methods
2
* Prerequisite(s): MUSC 4220 and University Advanced Standing

Provides further examination of the processes involved in developing a successful school choral program. Studies the history and performance practices of stylistic periods of choral literature. Provides opportunities to plan and lead choral ensemble rehearsals. Includes preparations of materials for professional portfolios. Covers strategies for long-term professional development.

MUSC 422R
Commercial Music Performance Workshop
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): MUSC 250R or MUSC 450R or MUSC 455R or MUSC 360R

Provides experience performing various styles of commercial music. Explores techniques required in the performance of contemporary styles. Addresses stage presence analysis and provides opportunities for students to explore various performance techniques. Discusses the control of performance anxiety. Practices the basic techniques of stage presentation, lighting, stage direction, and costuming. Develops advanced-level commercial performance proficiency. May be repeated for a maximum of 8 credits toward graduation.

MUSC 423R
Opera Workshop
1
* Corequisite(s): MUSC 250R or MUSC 450R
* Prerequisite(s) or Corequisite(s): MUSC 455R

Provides experience performing scenes from opera. Explores the techniques of dramatic characterization and stage craft. Addresses the process of character analysis. Discusses the control of performance anxiety. Practices the basic techniques of stage makeup and costuming. Develops advanced-level singing proficiency. May be repeated for a maximum of 12 credits toward graduation. Course Lab fee of $100 for support applies.

MUSC 4240
Vocal Pedagogy
2
* Prerequisite(s): MUSC 2002 and University Advanced Standing

Provides instruction centered on the art and science of vocalization as it pertains to teaching in a studio scenario and in personal study. Presents varied teaching methods for vocal instruction in group and one-to-one situations. Provides students the opportunity to teach and receive immediate peer and instructor evaluations on the efficacy of their teaching style and lesson content.

MUSC 4340
Marching Band Techniques
1
* Prerequisite(s): University Advanced Standing

Teaches organization and training of marching bands in public schools. Emphasizes precision marching and traditional formation techniques. Covers elements of instrumentation, charting, drill techniques and parade marching. Software fee of $22 applies Course Lab fee of $10 for computers applies.

MUSC 4350
Instrumental Literature and Methods
2
* Prerequisite(s): MUSC 2350 and University Advanced Standing

Studies literature, methodology, and administration of a high school instrumental music program.

MUSC 4370
Advanced Instrumental Literature and Methods
2
* Prerequisite(s): MUSC 2350, MUSC 4360, and University Advanced Standing

Studies literature, methodology, and administration of a high school instrumental music program.

MUSC 450R
Advanced Private Lessons for Music Majors
1
* Prerequisite(s): Sophomore Review required and University Advanced Standing
* Corequisite(s): MUSC 451R

Offers twelve 60-minute private lessons for music majors. Focuses on the individual needs of the student in developing advanced skills and techniques. Requires participation in weekly performance class. Includes juried evaluations. May be repeated as desired. Course fee of $443 for recital preparation applies.

MUSC 451R
Performance Class
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): MUSC 450R or MUSC 455R

Provides advanced performance experience for music majors. Develops an ability to offer and receive constructive criticism. Explores performance-related topics such as practice strategies, performance anxiety, interpretive phrasing, technical mastery, memorization and jury preparation. May be repeated for a maximum of 12 credits toward graduation.

MUSC 455R
Private Lessons for Music Performance Majors
2
* Prerequisite(s): BM in Performance major, Sophomore Review, and University Advanced Standing
* Corequisite(s): MUSC 451R

Offers twelve 60-minute private lessons for music performance majors. Focuses on the individual needs of the student in developing advanced skills and techniques. Requires participation in weekly performance class. Includes recital preparation and juried evaluations. May be repeated as desired. Course fee of $443 for recital preparation applies.

MUSC 470R
Studio Arranging and Producing
3
* Prerequisite(s): MUSC 2400, MUSC 3120, and University Advanced Standing

Covers theoretical concepts of composing, arranging, production, and rough mixing in the recording/production studio in various styles and applications. Incorporates practical experience in a working professional studio. Provides in-depth access and exposure to professional-level sample libraries and sequencing techniques. Applies principles of orchestration, both traditional and contemporary, in the classroom and studio environment. Emphasizes communication skills with recording artists, musicians and engineers. Covers logistical protocols for scheduling, booking of studios and musicians, studio demeanor and ethics, and working with clients. May be repeated for a maximum of 12 credits towards graduation. Software fee of $100 applies. Lab access fee of $10 for computers applies.

MUSC 4780
Pre-Service Student Teaching
2
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): MUSC 4221, MUSC 4360, or MUSC 4370

Provides placement in a secondary public school setting in one weekly class or ensemble in preparation for the final student teaching experience. Requires score preparation, assistance with sectionals, teaching music literacy concepts and mini lessons, and other work as assigned by the supervisor and cooperating teacher. Includes peer observations in various school settings. Provides formal observations by content faculty.
MUSC 4785
Student Teaching Seminar
2
* Prerequisite(s): University Advanced Standing

Provides support for the student teaching experience. Includes classroom management, ongoing content mentorship, supervision of conducting and score preparation, faculty and peer feedback, and assistance with senior portfolio. Requires written assignments and off-campus peer observations.

MUSC 4800
Senior Recital
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): MUSC 450R or MUSC 455R

Provides a solo recital experience for students during their senior year. Prepares students for a professional music career including preparation of a comprehensive portfolio.

MUSC 481R
Internship in Music II
1 to 8
* Prerequisite(s): Departmental Approval and University Advanced Standing

Provides an opportunity for upper-division students to receive college credit and work in a music-related field. Offers students the opportunity to focus on a specific career path and prepare themselves to enter the profession. Applies academic concepts to actual work experiences. Requires approval of faculty sponsor and completion and acceptance of application. Also requires completion of an orientation, completion of Master Agreement between UVU and employer, completion of goals and tasks as required by academic department, and completion of final evaluation. May be repeated for a total of 8 credits towards graduation. May be graded credit/no credit.

MUSC 490R
Advanced Independent Study
1 to 3
* Prerequisite(s): MUSC 3120 and University Advanced Standing

Individual projects to be negotiated by student and instructor on a case-by-case basis. May be repeated for a maximum of 12 credits toward graduation.

MUSC 492R
Advanced Topics in Music
1 to 3
* Prerequisite(s): University Advanced Standing

Provides a senior-level assessment of student competency in preparation for entering the commercial music industry. Investigates topics that may include but are not limited to advanced mixing techniques, advanced midi orchestration and composition, advanced composition in unfamiliar styles, in depth study of various types of synthesis, advanced studio production/recording techniques, and advanced marketing and business creation practices. Software fee of $100 applies. Lab access fee of $10 for computers applies.

National Security Studies (NSS)

NSS 2010
Introduction to National Security WE
3
* Prerequisite(s): ENGL 2010; HIST 1700 or HIST 2700 or POLS 1100 or CJ 1010

Categorizes elements of the national security field. Explores the national security system, focusing on contemporary issues. Analyzes formulation and execution of national security policy through diplomacy, intelligence operations, and military force.

NSS 301R
National Security Area Studies
3
* Prerequisite(s): University Advanced Standing; POLS 1100, HIST 1700, or HIST 2700, or CJ 1010

Examines the national security issues associated with a particular geographic area in the global community. May be repeated for a maximum of 9 credits toward graduation.

NSS 3050
US Intelligence Community
3
* Prerequisite(s): University Advanced Standing

Examines the US Intelligence Community (IC) and its core responsibilities and processes. Assesses the IC’s two-fold role to support policy makers and operations, the customer-driven intelligence production cycle, how national foreign intelligence requirements are generated and prioritized, what activities are authorized and which activities are prohibited, intelligence oversight by Congress, and privacy concerns. Evaluates the missions, roles, responsibilities, and authorities of the (IC) constituent agencies and assess the IC’s intelligence collection disciplines.

NSS 3750
Advanced Technologies in National Security
3
* Prerequisite(s): NSS 2010 and University Advanced Standing

Introduces students to a variety of emerging technologies which have the potential to cause major both geopolitical and socioeconomic disruptions. Covers a wide range of technologies, including artificial intelligence, hypersonic and space technologies, robotics/autonomous systems, artificial intelligence, biotechnologies, quantum information sciences, blockchain, and cybersecurity. Examines these technologies and analyzes their potential impacts on national security.

NSS 3850
Ethics and Intelligence
3
* Prerequisite(s): NSS 2010 and University Advanced Standing

Focuses on the ethical challenges that face individuals and agencies within the United States Intelligence Community. Examines specific ethical issues associated with the collection, retention, and dissemination of intelligence. Analyzes the delicate balance between protecting national security and civil liberties. Uses case study analysis to identify and solve individual and organizational ethical dilemmas at both the national and international levels.

NSS 4150
Cybersecurity Policy
3
* Prerequisite(s): NSS 2010 and University Advanced Standing

Examines the current cyber threat landscape. Educates students on the history and national security implications of cybersecurity and cyberwarfare. Analyzes cybersecurity capabilities and current operations of several nation-state actors. Provides the knowledge and skills necessary to operate on the strategic policy level in the cyber world by challenging them to analyze and address real world scenarios. Develops the skills set to prepare, present, and defend strategic policy recommendations. Applies cyber knowledge and skillset across government, private sector, and academic settings.
NSS 4210
Law of War WE
3
* Prerequisite(s): (POLS 1100, HIST 1700, HIST 2700, or CJ 1010) and University Advanced Standing
Examines the law that governs situations of armed conflict, including the history and development of the law. Assesses major contemporary issues in this area of the law, to include detention policy, drone warfare, terrorism as a tactic of war, and preemptive force.

NSS 4250
National Security Career Strategies
3
* Prerequisite(s): NSS 2010; University Advanced Standing
Emphasizes the development of effective techniques for successfully locating, applying for and securing employment as well as advancing in a National Security-related career path. Includes industry and job research, demonstration, role play, development of writing materials, and application exercises. Provides preparation for internship and career entry experience.

NSS 4300
Intelligence Cycle and Collections
3
* Prerequisite(s): NSS 2010, NSS 3050, and University Advanced Standing
Describes the intelligence collection and production cycle. Evaluates the nature, organization, activities, and key issues surrounding the methods of intelligence and counterintelligence collection. Examines historical development and utilizations of the dominant collection activities, including human intelligence, geospatial intelligence, signals intelligence, measurement and signature intelligence, and their role in American statecraft. Explores significant policy issues related to intelligence collection in the U.S. experience, including legal, moral, ethical, organizational, strategic, and performance issues, and measures of effectiveness. Applies specific skills in writing and open source intelligence collection.

NSS 4400
Statecraft and Strategy
3
* Prerequisite(s): NSS 2010
Analyzes the theory, history, practice, and challenges of statecraft and strategy in U.S. national security. Examines the various methods of statecraft that are available to policymakers. Evaluates how these methods have been used successfully in the pursuit of national interests and purposes. Assesses instruments of national power, including military power, economic strategy, intelligence; the use of information, disinformation, and propaganda; various types of diplomacy, political, moral, and psychological influence; and other instruments of soft power.

NSS 4600
National Security Law
3
* Prerequisite(s): University Advanced Standing; POLS 1100, HIST 1700, HIST 2700, or CJ 1010
Evaluates the distribution of national security powers amongst the three branches of government. Reviews the laws and policies that govern the legality of war, military operations in wartime, intelligence collection, protection of national security information, foreign intelligence surveillance, covert action, special military operations, offensive counterterrorism operations, detention and interrogation of terrorism suspects, and other current issues in the national security area.

NSS 475R
Current Topics in National Security
3
* Prerequisite(s): University Advanced Standing
Presents selected topics in National Security and will vary each semester. Requires a special project related to the area of study. May be repeated with different topic areas for a maximum of 9 credits toward graduation.

NSS 4800
Intelligence Analysis and Tradecraft
3
* Prerequisite(s): University Advanced Standing
Appraises structured analytic techniques commonly embraced as sound tradecraft within the Intelligence Community (IC) and applies these techniques in the context of actual intelligence cases. Applies the structured analytic techniques of decomposition and visualization, idea generation, scenarios and indicators, hypothesis generation and testing, assessment of cause and effect, challenge analysis, and decision support. Evaluates IC analytic standards and discuss ethical considerations.

NSS 481R
National Security Internship
1 to 9
* Prerequisite(s): University Advanced Standing
Provides academic credit for work for students in a paying or non-paying (volunteer) job for a national security employer or other approved related situation. Emphasizes successful work experience with emphasis on identifying and solving problems. May be repeated for a maximum of 9 credits toward graduation. May be graded credit/no credit.

NSS 491R
Directed Readings and Special Projects in National Security
1 to 3
* Prerequisite(s): University Advanced Standing
Offers independent study as directed in reading, individual projects, etc., at the discretion and approval of the department chair. May be repeated for a maximum of 9 credits.

NSS 4990
National Security Capstone Seminar
3
* Prerequisite(s): NSS 2010, NSS 301R, NSS 4600, NSS 475R, and University Advanced Standing
Includes readings and discussions about a variety of complex national security problems and issues. Offers directed research project tailored to each student's special interests.

NSS 6500
US National Security Policy and Strategy
3
* Prerequisite(s): Acceptance into the Masters of Public Services Program or department approval
Examines how the United States formulates national security policy and strategy. Analyzes conceptual foundations, organizational structures and functions, decision-making processes, and priority issues in US national security. Assesses the role and authorities of the President and Executive Branch, congresional oversight, national security policy development and implementation, the implementation and limits of national power, the role of intelligence, the relevant legal frameworks, and specific national security challenges.

NSS 6600
State Responses to Terrorism-Counterterrorism in a Collaborative Environment
3
* Prerequisite(s): Acceptance into the Masters of Public Services Program
Outlines how federal, state, and local law enforcement have developed a standardized information sharing process in an effort to mitigate terror attacks. Analyzes state fusion centers, intelligence-led policing, community engagement, and multi-agency emergency response plans. Utilizes practical lecture, table top exercise, and case studies, to demonstrate how states act independently to prevent, thwart, and mitigate acts of terror stemming from domestic terrorists, transnational terrorist organizations, and inspired lone offenders.
Nursing (NURS)

NURS 2210
Practical Nurse to Registered Nurse 1  
* Prerequisite(s): Licensure as a Practical Nurse; acceptance into ASN in Nursing program.

Introduces the role of the registered nurse in providing patient-centered, safe, and quality care for adults in health care settings. Emphasizes the use of assessment to plan patient care and evaluate patient outcomes. Includes the functions of the registered nurse in the interprofessional healthcare team.

NURS 2300  
Nursing Health Assessment 2  
* Prerequisite(s): Acceptance into ASN/BS Nursing program  
* Corequisite(s): NURS 2305  
* Prerequisite(s) or Corequisite(s): NURS 2320

Introduces the health history interview and physical assessment for patients across the lifespan. Uses a holistic approach in identifying health care needs of the patient within the context of standards of nursing practice.

NURS 2305  
Nursing Health Assessment Laboratory 1  
* Prerequisite(s): Acceptance into ASN/BS Nursing program  
* Corequisite(s): NURS 2300  
* Prerequisite(s) or Corequisite(s): NURS 2320

Integrates knowledge, behaviors and skills from current and previous courses in lab and simulation settings. Provides opportunities to perform health assessments. Prepares students to enter the clinical setting. Course Lab fee of $22 applies.

NURS 2310  
Nursing Pharmacology 3  
* Prerequisite(s): CHEM 1110, ZOOL 2320 and Acceptance into ASN/BS Nursing program  
* Prerequisite(s) or Corequisite(s): ZOOL 2420

Examines general principles of drug therapies, including medication administration, pharmacotherapeutics, and dosage calculations. Focuses on major drug categories and prototypes in each category. Serves as a basis for understanding drug therapy as an important part of health care.

NURS 2320  
Fundamentals of Nursing Care 2  
* Prerequisite(s): Acceptance into ASN/BS Nursing program  
* Corequisite(s): NURS 2325  
* Prerequisite(s) or Corequisite(s): NURS 2300

Promotes safe patient care for individuals across the lifespan. Emphasizes nursing interventions based on an individualized patient assessment to promote quality care and risk reduction. Course fee of $75 for online assessment & review tools applies.

NURS 2325  
Nursing Practice Simulation and Skills Lab 2  
* Prerequisite(s): Acceptance into ASN/BS Nursing program  
* Corequisite(s): NURS 2320  
* Prerequisite(s) or Corequisite(s): NURS 2300

Provides opportunity to practice safe patient care for patients across the lifespan. Integrates knowledge, behaviors and skills from current and previous courses in lab, simulation and clinical settings. Prepares students to engage in the clinical setting and provide basic nursing care. Course Lab fee of $169 applies.

NURS 2410  
Nursing Care of Adults with Common Health Needs 3  
* Prerequisite(s): NURS 2320  
* Corequisite(s): NURS 2415  
* Prerequisite(s) or Corequisite(s): NURS 2420

Incorporates theories of nursing care for adult patients with common health needs and builds upon concepts learned in current and previous courses. Emphasizes pharmacotherapeutics, clinical judgment, and health assessment, promotion, and teaching in caring for patients with common health needs. Integrates standards of nursing practice in caring for patients and their support systems. Course fee of $75 for online assessment & review tools applies.

NURS 2415  
Nursing Care of Adults with Common Health Needs Clinical 2  
* Prerequisite(s or Corequisite(s): Acceptance into the Masters program

Provides clinical opportunities to care for adult patients with common physiological problems in healthcare settings. Incorporates pharmacotherapeutics, clinical judgment, and health assessment, promotion, and teaching in management of patients with common health needs. Integrates standards of nursing practice in delivery of care to patients and their support systems.

NURS 2420  
Nursing Care of the Aging Population 2  
* Prerequisite(s): NURS 2300, NURS 2310  
* Corequisite(s): NURS 2410

Introduces the aging process and changes with aging. Identifies special needs of older adults and nursing interventions to meet those needs. Prepares students to meet the needs of the increasing elderly population including caring for patients with chronic illnesses and end-of-life concerns. Includes a service learning component requiring visits to a community setting with active seniors.

NURS 2430  
Mental Health Nursing 2  
* Prerequisite(s): NURS 2300, NURS 2310  
* Corequisite(s): NURS 2435

Examines psychosocial and neurobiological aspects of disorders of cognition, mood and behavior. Explores trends in nursing and interprofessional care of persons with psychiatric disorders. Integrates standards of nursing practice in the core for patients with mental health needs and their support systems.
NURS 2435
Mental Health Nursing Clinical
1
* Prerequisite(s): NURS 2300, NURS 2310, NURS 2320
* Corequisite(s): NURS 2430
Provides clinical opportunities to care for patients with mental health needs. Integrates standards of nursing practice in delivery of care to patients and their support systems with an emphasis on mental health care.

NURS 2445
Nursing Practice Simulation and Skills Lab II
1
* Prerequisite(s): NURS 2305 and NURS 2325
* Corequisite(s): NURS 2410
Integrates nursing knowledge, behaviors, and skills from current and previous courses in lab and simulation settings. Prepares students for care of patients with common health needs, mental health needs, and conditions related to aging. Course Lab fee of $169 applies.

NURS 3330
Nursing Care of Individuals with Complex Health Needs
2
* Prerequisite(s): NURS 2410 and University Advanced Standing
* Corequisite(s): NURS 3335
* Prerequisite(s) or Corequisite(s): ZOOL 4400 highly recommended
Incorporates concepts learned in current and previous courses into principles of nursing care for patients with complex health needs. Emphasizes pathophysiology, pharmacotherapeutics, monitoring, and interventions required in caring for patients in acute and unstable conditions. Integrates standards of nursing practice in caring for patients and their support systems. Course fee of $75 for online assessment & review tools applies.

NURS 3335
Nursing Care of Individuals with Complex Health Needs Clinical
2
* Prerequisite(s): NURS 2410 and University Advanced Standing
* Corequisite(s): NURS 3330
* Prerequisite(s) or Corequisite(s): ZOOL 4400 highly recommended
Provides clinical opportunities to care for patients with complex health needs. Incorporates pathophysiology, pharmacotherapeutics, monitoring, and interventions required in management of patients in acute and unstable conditions. Integrates standards of nursing practice in delivery of care to patients and their support systems.

NURS 3340
Nursing Care of Women Children and Developing Families
3
* Prerequisite(s): NURS 2410 and University Advanced Standing
* Corequisite(s): NURS 3345
Explores application of the nursing process to address health issues of women, children and developing families. Emphasizes safety and quality of nursing care.

NURS 3345
Nursing Care of Women Children and Developing Families Clinical
1
* Prerequisite(s): NURS 2415 and University Advanced Standing
* Corequisite(s): NURS 3340
Provides clinical and/or laboratory opportunities to apply the nursing process to address health issues of women, children and developing families.

NURS 3355
Nursing Practice Simulation and Skills Lab III
1
* Prerequisite(s): NURS 2445 and University Advanced Standing
* Corequisite(s): NURS 3330
Integrates nursing knowledge, behaviors, and skills from current and previous courses in lab and simulation settings. Prepares students to care for women, children, developing families, and individuals with complex and critical conditions. Course lab fee of $169 applies.

NURS 3365
LPN Simulation/ Skills Lab and Clinical Experience
5
* Prerequisite(s): Department approved PN graduate transfer students and University Advanced Standing
* Corequisite(s): NURS 3330 and NURS 2210
Prepares students to care for individuals with common, complex, and critical health care needs across the lifespan. Integrates nursing knowledge, behaviors, and skills from previous PN education. Incorporates pharmacotherapeutics, clinical judgment, and health assessment, promotion, and teaching in management of patients. Applies standards of nursing practice in delivery of care to patients across the lifespan and their support systems.

NURS 3400
Patient Care Coordination and Management
1
* Prerequisite(s): NURS 3330, NURS 3335, and University Advanced Standing
* Corequisite(s): NURS 3405
Focuses on the core roles of the nurse as a provider of care, manager of care, and member of the profession. Incorporates aspects of evidence-based nursing practice. Explores the scope of nursing practice related to national and local healthcare regulations. Course fee of $75 for online assessment & review tools applies.

NURS 3405
Patient Care Coordination and Management Preceptorship
2
* Prerequisite(s): NURS 3330, NURS 3335, and University Advanced Standing
* Corequisite(s): NURS 3400
Provides clinical experiences in coordinating and managing the care of a small group of patients. Focuses on the core roles of the nurse as a provider of care, manager of care, and member of the profession. Incorporates aspects of delegation, prioritization, time management, communication, and group dynamics.

NURS 3420
Mentoring in Nursing
1
* Prerequisite(s): NURS 2320 and University Advanced Standing
Provides an opportunity for students to develop personal leadership and mentoring skills as they work with other nursing students and/or patients.

NURS 3440
Pharmacology for the Practicing Nurse
2
* Prerequisite(s): NURS 3330 and University Advanced Standing
* Corequisite(s): NURS 3400
Emphasizes clinical judgement, patient teaching, and evaluation of patient outcomes. Explores in depth the pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of medications and complementary and integrative health therapies.

NURS 3445
Nursing Practice Simulation and Skills Lab IV
1
* Prerequisite(s): NURS 3355 and University Advanced Standing
Integrates nursing knowledge, behavior, and skills from current and previous courses in lab and simulation settings. Prepares students for entry-level practice as a registered nurse. Course Lab fee of $169 applies.
Course Descriptions

NURS 4120
Rapid Response Concepts Across the Lifespan
1
* Prerequisite(s): (NURS 3330 and NURS 3340) or (RESP 2320 and RESP 2165) and University Advanced Standing

Prepares health care professionals to respond to, stabilize and transport adult and pediatric patients experiencing life threatening emergencies in hospital and prehospital settings. Enhances skills in the diagnosis and treatment of patients requiring care by a rapid response team, through active participation in simulated cases. Course Lab fee of $50 applies.

NURS 4130
Critical Care in Nursing
2
* Prerequisite(s): NURS 3330 and University Advanced Standing

Expands upon nursing care of individuals with complex disorders. Focuses on nursing in the critical care setting and includes specialized topics such as: nursing assessment, equipment, diagnostic tests, medication administration, ECG monitoring and standard nursing care of the client with an acute illness.

NURS 4210
Concepts in Child Bearing
2
* Prerequisite(s): NURS 3340 and University Advanced Standing

Introduces the student to special concepts related to the child bearing family, including legal and ethical questions that relate to childbearing. Discusses local and global issues in childbearing.

NURS 4220
Pediatric Acute Care Nursing
2
* Prerequisite(s): NURS 3340 and University Advanced Standing

Applies the nursing process to provide family centered nursing care to hospitalized children from birth through adolescence. Explores and examines sociocultural, economic, developmental, emotional and physiologic factors which influence ill newborns or children and their families.

NURS 4230
Palliative Care in Nursing
3
* Prerequisite(s): NURS 2410 and University Advanced Standing

Describes the principles of palliative care nursing throughout the illness trajectory. Explores personal emotions, beliefs and values in understanding the nature of suffering. Examines basic principles of palliative care within a quality of life framework.

NURS 4240
Promoting Active Senior Lifestyles
2
* Prerequisite(s): University Advanced Standing

Explores the importance of an active lifestyle throughout the lifespan. Includes service learning experiences in health screening, health promotion teaching, and observation of active senior adults. May require overnight travel.

NURS 4300
Nursing in the Community
2
* Prerequisite(s): NURS 2410 and University Advanced Standing

Examines various nursing models and theories which influence current nursing practice. Explores essential and interdependent relationships among knowledge, theory, research, and nursing practice. Assists students to conduct a basic assessment of a theory and gain insight into the development of their individual philosophies of nursing practice.

NURS 4320
Nursing Theory
2
* Prerequisite(s): NURS 2410 and University Advanced Standing

Examines various nursing models and theories which influence current nursing practice. Explores essential and interdependent relationships among knowledge, theory, research, and nursing practice. Assists students to conduct a basic assessment of a theory and gain insight into the development of their individual philosophies of nursing practice.

NURS 4325
Nursing in the Community Clinical
1
* Prerequisite(s): NURS 3405 and University Advanced Standing

Corequisite(s): NURS 4320

Applies professional nursing practice in community-based and community-focused settings to promote and preserve the health of populations. Emphasizes nursing’s impact on behaviors that promote health and reduce risk. Includes principles of family and community assessments, epidemiology, and environmental health.

NURS 4340
Genomics in Nursing and Health
2
* Prerequisite(s): NURS 3330 and University Advanced Standing

Explores the expanding science of genomics and related fields, with emphasis on implications for nursing practice. Examines current and developing genetic and genomic concepts and technologies as they relate to nursing practice and health.

NURS 441G
Nursing in Global Perspective
3
* Prerequisite(s): NURS 2300 and University Advanced Standing

Explores nursing and health care issues in a global perspective to promote culturally competent health practice in a diversifying population.

NURS 4500
Nursing Leadership
3
* Prerequisite(s): NURS 3405 and University Advanced Standing

Explores leadership concepts and assists students to develop knowledge and skills necessary for leadership in nursing care delivery. Discusses leadership concepts related to nursing roles as providers of care, managers of care and members of the profession.

NURS 4510
Clinical Assessment and Reasoning
2
* Prerequisite(s): NURS 3405 and University Advanced Standing

Develops skills of systematic history taking, clinical examination and critical reasoning with a focus on people with complex health problems. Explores critical thinking skills and habits as well as nursing process and other clinical judgment models.

NURS 4520
Navigating Health Systems
3
* Prerequisite(s): NURS 2300 and University Advanced Standing

Examines health systems, including the relationships between delivery, access, utilization and patient outcomes. Explores how organizational and economic structures, political, sociocultural, and legal factors influence the design and functions of health services.

NURS 4540
Research and Theory in Nursing Practice WE
4
* Prerequisite(s): NURS 3405, completion of a university-level statistics course with a minimum C or higher and University Advanced Standing

Prepares nurses to find, evaluate and apply evidence as a foundation to propose creative, innovative, or evidence-based solutions to clinical practice problems. Explores selected nursing theories and conceptual models, fundamentals of the research process, and relationships between theory, practice and research.
NURS 4550  
Quality and Safety in Nursing WE  
3  
* Prerequisite(s): NURS 3405 and University Advanced Standing  
Explores quality and safety initiatives in health care. Develops knowledge and skills to create and maintain a culture of quality and safety through monitoring and improving outcomes of care processes.

NURS 481R  
Internship in Nursing  
1 to 3  
* Prerequisite(s): Department Chair approval and University Advanced Standing  
Provides supervised, practical, clinical experience for students preparing for careers in Nursing. May be repeated for a maximum of 3 credits toward graduation. May be graded credit/no credit.

NURS 489R  
Undergraduate Research in Nursing  
1 to 4  
* Prerequisite(s): NURS 2410, Department approval, and University Advanced Standing  
Provides nursing students the opportunity to conduct research mentored by a faculty member. Requires the creation of a significant intellectual or creative product worthy of publication or presentation. May be repeated for a maximum of 4 credits toward graduation.

NURS 490R  
Special Topics in Nursing  
1 to 4  
* Prerequisite(s): NURS 2410 and University Advanced Standing  
Explores special topics of current relevance to nursing in an in-depth manner. May be repeated for a maximum of 4 credits toward graduation.

NURS 495R  
Independent Study in Nursing  
1 to 3  
* Prerequisite(s): NURS 2410, Departmental approval, and University Advanced Standing  
Provides students an opportunity to pursue independent study in nursing with a faculty mentor. Includes any combination of literature reviews, original research, participation in departmental and independent projects. Requires preparation and presentation of oral and/or written reports. May be repeated for up to 3 credits toward graduation.

NURS 6000  
Leadership Development  
2  
* Prerequisite(s): Admission into the Master of Science in Nursing (MSN) program or Department approval  
Provides opportunities for students to examine the role of the graduate nurse leader within the evolving healthcare system. Explores requisite skills necessary to lead in complex environments, facilitate improved patient outcomes, and institute quality improvement strategies as they gain an understanding of the interconnectedness of academia and practice settings and apply leadership concepts in an interprofessional context.

NURS 6050  
Nursing Informatics  
2  
* Prerequisite(s): Admission into the MSN program or Department approval  
Introduces nursing informatics theory, evolving practice applications, and skill development. Discusses human factors essential to effective application of nursing informatics in practice. Applies technical skills and processes for the integration of nursing informatics into nursing education and clinical practice settings.

NURS 6200  
Advanced Nursing Theory  
2  
* Prerequisite(s): Admission into the MSN program or Department approval  
Provides students opportunities to critique and deconstruct extant and emerging theories as they relate to nursing. Explores the relationships among theory, knowledge, science, and evidence-based nursing practice. Facilitates the advancement of nursing practice based on theoretical principles.

NURS 6250  
Curriculum Design and Development  
3  
* Prerequisite(s): Admission to the MSN program or Department approval  
Explores curriculum design and development in nursing and incorporates reviewing, restructuring, and developing curricula to meet identified learning needs. Enhances student skill and understanding of curricular processes designed to foster and advance nursing education.

NURS 6300  
Advanced Nursing in Health Systems and Policy  
2  
* Prerequisite(s): Admission into the MSN program or Department approval  
Prepares students for their developing role as change agents within the workforce. Provides students opportunity to explore current health care policies, including the effects policies have on social determinants of health, current health care systems and nursing practice. Identifies ways to influence change and advance nursing and health care in the future.

NURS 6350  
Path/Pharmacology for the Nurse Educator  
3  
* Prerequisite(s): Admission into the MSN program or Department approval  
Focuses on pathophysiological and pharmacological processes across the lifespan and the development of clinical reasoning skills that distinguish the relationships between normal physiology and the specific system alterations produced by injury and disease. Gives particular attention to etiology, pathogenesis, developmental and environmental influences and the clinical manifestations of major health problems with pharmacologic interventions to students enrolled in the nursing education program.

NURS 6450  
Health Assessment for the Nurse Educator  
3  
* Prerequisite(s): Admission into the MSN program or Department approval  
Prepares students opportunity to explore, critique, synthesize, and utilize appropriate research findings to resolve nursing problems and improve outcomes. Incorporates various research designs in the development of nursing practice. Applies research methodology and ethical considerations in development of a research proposal for evidence-based practice.

NURS 6600  
Teaching Nursing in the Classroom Setting  
2  
* Corequisite(s): NURS 6605  
Focuses on facilitating learning in classroom settings. Incorporates aspects of the philosophy of adult education and adult learning theory, the teaching process and self-evaluation.
### Nutrition (NUTR)

#### NUTR 1020 Foundations of Human Nutrition
3
For students interested in various health care professions. Considers basic principles of human nutrition. Studies factors that influence nutritive requirements and maintenance of nutritional balance. Examines relationships between proper nutrition and social, mental and physical well-being. Canvas Course Mats $66/ McGraw applies

#### NUTR 2020 Nutrition Through the Life Cycle
BB
3
Focuses on nutrition and the application of nutrition principles to the human life cycle. Includes nutrient functions, needs, sources, and alterations during pregnancy, lactation, growth & development (infancy through adulthood), maturation, and aging.

#### NUTR 3000 Nutrition and Disease
3
* Prerequisite(s): NUTR 1020 and University Advanced Standing
Examines the latest research on how nutrition may prevent and improve symptoms of many different diseases. Explores the relationships between the food we eat and risk, understanding the role of the nutrition care process and when it could be utilized. Builds students ability to critically analyze nutritional information and helps students to create nutritional interventions to achieve and maintain a healthy lifestyle.

#### NUTR 3100 Public Health Nutrition
3
* Prerequisite(s): NUTR 1020 and University Advanced Standing
Examines the effect of diet on human development and disease prevention. Studies several public health nutritional tools and how they apply to the population. Assesses current nutritional policies in public health, with an emphasis on how to manage community health nutrition needs.

#### NUTR 3200 Cultural Aspects of Health and Nutrition
3
* Prerequisite(s): NUTR 1020 and University Advanced Standing
Focuses on the influence of culture on illness, health, and rehabilitation. Explores the relationship that culture plays in the health and wellness of both individuals and the community in which they live.

### Public Administration (PADM)

#### PADM 6000 Public Administration
3
* Prerequisite(s): Admission into any graduate program at Utah Valley University
Explores senior-level administrative functions within a public services organization. Analyzes and assesses positive and negative practices within public service organizations, including managerial actions and bureaucracy.

#### PADM 6010 Public Administration Finance and Budgeting
3
* Prerequisite(s): Admission into any graduate program at Utah Valley University
Analyzes financial and budgeting operations occurring in the public sector. Assesses funding streams, budget development, financial management concerns, and fiduciary responsibilities of public service leaders.

#### PADM 6020 Public Administration Policy and Evaluation
3
* Prerequisite(s): Admission into any graduate program at Utah Valley University
Provides the investigative, ethical, and development tools needed to form public policy and evaluate program success. Develops analysis skills to examine new ideas, test their viability, determine program needs, and organize to meet these needs. Addresses how to make policy, how to assess if policy is working, and how to fix the flaws in existing policy.

#### PADM 6030 Legal Issues for Public Administration
3
* Prerequisite(s): Admission into any graduate program at Utah Valley University
Evaluates the law and its application within the public services. Examines constitutional principles in relation to public service functions.
PADM 6040
Organizational Behavior in Public Administration
3
* Prerequisite(s): Admission into any graduate program at Utah Valley University
Examines organizational behavior within the public services and compares and contrasts it to the private sector. Researches the public services to make comparisons and develop a theoretical basis, for use in administrative decision-making in dealing with organizations and their people. Applies conceptual frameworks, case discussions, and skill-oriented activities which include: motivation, learning and development, group dynamics, leadership, communication, power and influence, change, diversity, organizational design, and culture. Helps participants acquire skills and analytic concepts to improve organizational relationships and effectiveness.

PADM 6050
Public Administration Leadership and Ethics
3
* Prerequisite(s): Admission into any graduate program at Utah Valley University
Analyzes leadership approaches within the public services. Identifies the need for people-centric leadership that serves both the public servants and the community. Uses case study analysis to differentiate between leadership approaches to people and the management of processes. Explores ethical issues in public service delivery.

PADM 6060
Research Methods for Public Administration
3
* Prerequisite(s): Admission into any graduate program at Utah Valley University
Identifies qualitative and quantitative research methods within a public services framework. Introduces the impact social science discovery has on the formulation of public policy, illustrates research designs utilized within qualitative and quantitative methodologies.

PADM 6070
Human Resource Management
3
* Prerequisite(s): Admission into any graduate program at Utah Valley University
Examines the services provided by a manager of a human resources department. Provides an overview of human resource management. Focuses on the role of managers and how they develop effective and efficient human resources practices that support the strategic goals of their organization.

PADM 6400
Public Administration Program Development and Evaluation
3
* Prerequisite(s): Admission into any graduate program at Utah Valley University
Provides program planning and evaluation responsibilities in public service settings. Focuses on the critical components of most planning models which include: performing a needs assessment; priority setting; creating a problem statement; establishing goals and objectives; developing and implementing interventions; evaluation; and budgeting.

PADM 670R
Public Administration Internship
3
* Prerequisite(s): Admission into any graduate program at Utah Valley University
Provides students a transition from school to work where learned theory is applied to actual practice through meaningful on-the-job training commensurate with graduate-level work. May be repeated for a maximum of 6 credits toward graduation.

PADM 679R
Special Topics in Public Administration
1 to 6
* Prerequisite(s): Admission into any graduate program at Utah Valley University
Provides students with an opportunity to study and/or research special public service topics. Requires students to identify relevant topics of public services, analyze their issues and impacts, and synthesize possible solutions/models for application in the public services arena. Calls for creation of a significant research paper worthy of communication to a broader peer audience. May be repeated for a maximum of 6 credits toward graduation.

PADM 6900
Public Administration Capstone Project
3
* Prerequisite(s): Admission into any graduate program at Utah Valley University
* Prerequisite(s) or Corequisite(s): PADM 6060
Teaches synthesis of public service/emergency services coursework and primary/secondary research to formulate a public policy or empirical work relating to public services administration.

Physician Assistant Studies (PAS)

PAS 6701
Human Anatomy for the Physician Assistant I
1
* Prerequisite(s): Acceptance into Physician Assistant Program
Provides an in-depth, graduate-level understanding of human anatomy using a regional approach with instruction via lecture, simulation, and prospected cadavers. Helps students correlate the interactions between diverse structures and systems. Aligns content with the clinical medicine series. This is the first in a three-course series.

PAS 6702
Human Anatomy for the Physician Assistant II
1
* Prerequisite(s): Acceptance into Physician Assistant Program and PAS 6701 with a C or higher
Provides an in-depth, graduate-level understanding of human anatomy using a regional approach with instruction via lecture, simulation, and prospected cadavers. Helps students correlate the interactions between diverse structures and systems. Aligns content with the clinical medicine series. This is the second in a three-course series.

PAS 6703
Human Anatomy for the Physician Assistant III
1
* Prerequisite(s): Acceptance into Physician Assistant Program and PAS 6702 with a C or higher
Provides an in-depth, graduate-level understanding of human anatomy using a regional approach with instruction via lecture, simulation, and prospected cadavers. Helps students correlate the interactions between diverse structures and systems. Aligns content with the clinical medicine series. This is the third and final course in this series.

PAS 6711
Physiology/Pathophysiology for the Physician Assistant I
2
* Prerequisite(s): Acceptance into Physician Assistant Program
Examines how the human body functions from the cellular level to the interaction of organs and systems. Introduces functions related to anatomy and associations with common dysfunctions and diseases. Delivers content in an organ system-based approach with the goal of preparing physician assistant students for clinical practice. Aligns content with the clinical medicine series. This is the first of a three-course series.
Course Descriptions

PAS 6712  
Physiology/Pathophysiology for the Physician Assistant II  
2  
* Prerequisite(s): Acceptance into Physician Assistant Program and PAS 6711 with a C or higher  
Examines how the human body functions from the cellular level to the interaction of organs and systems. Introduces functions related to anatomy and associations with common dysfunctions and diseases. Delivers content in an organ system-based approach with the goal of preparing physician assistant students for clinical practice. Aligns content with the clinical medicine series. This is the second in a three-course series.

PAS 6713  
Physiology/Pathophysiology for the Physician Assistant III  
2  
* Prerequisite(s): Acceptance into Physician Assistant Program and PAS 6712 with a C or higher  
Examines how the human body functions from the cellular level to the interaction of organs and systems. Introduces functions related to anatomy and associations with common dysfunctions and diseases. Delivers content in an organ system-based approach with the goal of preparing physician assistant students for clinical practice. Aligns content with the clinical medicine series. This is the third and final course in this series.

PAS 6721  
Clinical Medicine I  
3  
* Prerequisite(s): Acceptance into Physician Assistant Program  
Teaches students to recognize, diagnose, and manage common medical conditions covering all organs and systems. Organizes the clinical medicine content into sets of modules. This is the first in a four-course series.

PAS 6722  
Clinical Medicine II  
3  
* Prerequisite(s): Acceptance into Physician Assistant Program and PAS 6721 with a C or higher  
Teaches students to recognize, diagnose, and manage common medical conditions covering all organs and systems. Organizes the clinical medicine content into a set of modules. This is the second in a four-course series.

PAS 6723  
Clinical Medicine III  
3  
* Prerequisite(s): Acceptance into Physician Assistant Program and PAS 6722 with a C or higher  
Teaches students to recognize, diagnose, and manage common medical conditions covering all organs and systems. Organizes the clinical medicine content into sets of modules. This is the third in a four-course series.

PAS 6724  
Clinical Medicine IV  
1  
* Prerequisite(s): Acceptance into Physician Assistant Program and PAS 6723 with a C or higher  
* Corequisite(s): PAS 6781  
Teaches students to recognize, diagnose, and manage common medical conditions covering all organs and systems. Organizes the clinical medicine content into sets of modules. This is the fourth and final course in this series.

PAS 6731  
Pharmacology/Pharmacotherapy for the Physician Assistant I  
3  
* Prerequisite(s): Acceptance into Physician Assistant Program  
Applies clinical principles of pharmacology, pharmacokinetics, and pharmacodynamics. Focuses on the concepts of pharmacotherapy necessary for clinical prescribing decisions and includes discussion about side effects, complications, dosages, and contraindications. Aligns content with the clinical medicine series. This is the first in a four-course series.

PAS 6732  
Pharmacology/Pharmacotherapy for the Physician Assistant II  
3  
* Prerequisite(s): Acceptance into Physician Assistant Program and PAS 6731 with a C or higher  
Applies clinical principles of pharmacology, pharmacokinetics, and pharmacodynamics. Focuses on the concepts of pharmacotherapy necessary for clinical prescribing decisions and includes discussion about side effects, complications, dosages, and contraindications. Aligns content with the clinical medicine series. This is the second in a four-course series.

PAS 6733  
Pharmacology/Pharmacotherapy for the Physician Assistant III  
3  
* Prerequisite(s): Acceptance in the Physician Assistant Program and PAS 6732 with a C or higher  
Applies clinical principles of pharmacology, pharmacokinetics, and pharmacodynamics. Focuses on the concepts of pharmacotherapy necessary for clinical prescribing decisions and includes discussion about side effects, complications, dosages, and contraindications. Aligns content with the clinical medicine series. This is the third in a four-course series.

PAS 6734  
Pharmacology/Pharmacotherapy for the Physician Assistant IV  
3  
* Prerequisite(s): Acceptance into the Physician Assistant Program and PAS 6733 with a C or higher  
Applies clinical principles of pharmacology, pharmacokinetics, and pharmacodynamics. Focuses on the concepts of pharmacotherapy necessary for clinical prescribing decisions and includes discussion about side effects, complications, dosages, and contraindications. Aligns content with the clinical medicine series. This is the fourth and final course in this series.

PAS 6741  
Clinical Skills I  
4  
* Prerequisite(s): Acceptance into Physician Assistant Program  
Teaches the knowledge and skill set needed for history taking, focused and comprehensive physical examination, and use of diagnostic studies. Emphasizes patient dignity and autonomy as well as provider communication skills. Develops oral and written documentation skills appropriate for medical records. Aligns content with the clinical medicine series. This is the first in a three-course series.

PAS 6742  
Clinical Skills II  
3  
* Prerequisite(s): Acceptance into the Physician Assistant Program and PAS 6741 with a C or higher  
Teaches the knowledge and skill set needed for history taking, focused and comprehensive physical examination, and use of diagnostic studies. Emphasizes patient dignity and autonomy as well as provider communication skills. Develops oral and written documentation skills appropriate for medical records. Aligns content with the clinical medicine series. This is the second in a three-course series.

PAS 6743  
Clinical Skills III  
3  
* Prerequisite(s): Acceptance into Physician Assistant Program and PAS 6742 with a C or higher  
Teaches the knowledge and skill set needed for history taking, focused and comprehensive physical examination, and use of diagnostic studies. Emphasizes patient dignity and autonomy as well as provider communication skills. Develops oral and written documentation skills appropriate for medical records. Aligns content with the clinical medicine series. This is the third and final course in this series.
PAS 6751
Clinical Decision Making I
1
* Prerequisite(s): Acceptance into Physician Assistant Program

Provides the opportunity to work through clinical scenarios coinciding with the clinical medicine series and content covered in other courses within a small group, case-based setting. This is the first in a three-course series.

PAS 6752
Clinical Decision Making II
1
* Prerequisite(s): Acceptance into Physician Assistant Program and PAS 6751 with a C or higher

Provides the opportunity to work through clinical scenarios coinciding with the clinical medicine series and content covered in other courses within a small group, case-based setting. This is the second in a three-course series.

PAS 6753
Clinical Decision Making III
1
* Prerequisite(s): Acceptance into Physician Assistant Program and PAS 6752 with a C or higher

Provides the opportunity to work through clinical scenarios coinciding with the clinical medicine series and content covered in other courses within a small group, case-based setting. This is the third and final course in this series.

PAS 6761
Behavioral Medicine
3
* Prerequisite(s): Acceptance into Physician Assistant Program

Focuses on how to identify, diagnose, and manage patients with a variety of mental and behavioral disorders in diverse populations across the lifespan. Covers topics such as normal and abnormal development, domestic violence, end of life care, diversity in medicine, health literacy, mental and behavioral disorders, as well as substance abuse.

PAS 6762
Personal and Clinical Leadership
3
* Prerequisite(s): Acceptance into Physician Assistant Program

Introduces the foundations of professional practice and leadership in the clinical setting. Includes the principles of managing conflict, self-reflection, mindful practice, and patient safety awareness in clinical practice.

PAS 6771
Physician Assistant Profession
2
* Prerequisite(s): Acceptance into Physician Assistant Program

Introduces the origin of the PA profession, PA professional organizations, and the culture of American medicine. Covers topics including credentialing, certification, team-based care, and the future trends of the PA profession.

PAS 6772
Special Populations
3
* Prerequisite(s): Acceptance into Physician Assistant Program and successful completion of the first didactic year

Teaches the knowledge and skill set needed for history taking, focused and comprehensive physical examination, and use of diagnostic studies and assessment tools for patient populations with unique characteristics. Emphasizes shared decision-making, cultural awareness, and vulnerabilities of patient populations covered in this course.

PAS 6773
Health Promotion and Disease Prevention
3
* Prerequisite(s): Acceptance into Physician Assistant Program and successful completion of the first didactic year

Teaches the basic principles of wellness, health promotion, and disease prevention in the clinical setting. Covers topics including epidemiology, screening for common preventable diseases, interventions (in some cases), as well as complementary and alternative medicine.

PAS 6774
Supplemental Topics in Medicine
1
* Prerequisite(s): Acceptance into Physician Assistant Program and successful completion of the first didactic year

Examines specialized topics in patient care with emphasis on collaboration with other healthcare professionals. Includes topics in nutrition, genetics, dental health, and team-based care.

PAS 6775
Health Care Delivery Systems and Medical Ethics
2
* Prerequisite(s): Acceptance into Physician Assistant Program and successful completion of the first didactic year

Provides an overview of the United States healthcare delivery system, healthcare policy, quality care, patient safety, and prevention of medical errors. Reviews the role of the physician assistant in the healthcare system.

PAS 6776
Physician Assistant Practice
1
* Prerequisite(s): Acceptance into Physician Assistant Program and successful completion of the first didactic year

Prepares the physician assistant to enter clinical practice. Covers applications for registration for PANCE and national provider identification (NPI) numbers. Focuses on the importance of accurate and complete documentation related to patient care. Teaches students to create customized career development tools. Includes a PANCE review course.

PAS 6781
Capstone I
1
* Prerequisite(s): Acceptance into Physician Assistant Program and successful completion of the first didactic year

Mentors students in creating the foundation for a robust professional portfolio based on competency domains and entrustable professional activities. Helps students develop the ability to critically review medical literature and determine what skills and training are most needed for a selected area of interest. This is the first in a three-course series.

PAS 6782
Capstone II
1
* Prerequisite(s): Acceptance into Physician Assistant Program and PAS 6781

Mentors students in initiating a robust professional portfolio. Helps students create a single space where all documentation of competency will be organized and accessible. Prepares students to work independently and in teams to further skills and training relevant to selected areas of interest. This is the second in a three-course series.

PAS 6783
Capstone III
1
* Prerequisite(s): Acceptance into Physician Assistant Program and PAS 6782

Mentors students in completing a robust professional portfolio. Helps students finalize a single space where all documentation of competency will be organized and accessible for potential employers and future growth. Prepares students to work independently and in teams to show skills and training relevant to selected areas of interest. This is the third and final course in this series.
Course Descriptions

PAS 6790
Family Medicine I-Supervised Clinical Practice Experience
3
* Prerequisite(s): Acceptance into Physician Assistant Program and successful completion of the didactic phase.

Provides the physician assistant student with clinical experience in practicing the principles of family medicine. Facilitates experiences in outpatient evaluation of patients across the lifespan (infant, child, adolescent, adult, and elderly) including preventive medicine and acute and chronic illness. This is a five-week supervised clinical practical experience (SCPE) and the course syllabus reflects both the first and second courses in this series. May be graded credit/no credit.

PAS 6791
Family Medicine II-Supervised Clinical Practice Experience
3
* Prerequisite(s): Acceptance into Physician Assistant Program and PAS 6790

Provides the physician assistant student with clinical experience in practicing the principles of family medicine. Facilitates experiences in outpatient evaluation of patients across the lifespan (infant, child, adolescent, adult, and elderly) including preventive medicine and acute and chronic illness. This is a five-week supervised clinical practical experience (SCPE) and the course syllabus reflects both the first and second courses in this series. May be graded credit/no credit.

PAS 6792
Behavioral and Mental Health Care-Supervised Clinical Practice Experience
3
* Prerequisite(s): Acceptance into Physician Assistant Program and successful completion of the didactic phase.

Provides the physician assistant student with an opportunity to learn, understand and gain clinical experience in practicing the principles of behavioral and mental health care conditions. Facilitates experiences in outpatient / inpatient evaluation of patients across the lifespan (adolescent, adult, and elderly) including acute and chronic illness. This is a five-week supervised clinical practical experience (SCPE). May be graded credit/no credit.

PAS 6793
Womens Health-Supervised Clinical Practice Experience
3
* Prerequisite(s): Acceptance into Physician Assistant Program and successful completion of the didactic phase.

Provides the physician assistant student with clinical experience in managing common gynecologic disorders. Includes obstetrical experience with routine prenatal and postpartum care, and may include labor and delivery. Comprises women's health care in an inpatient / outpatient setting across the lifespan (adolescent, adult, and elderly) including preventive medicine and acute and chronic illness. This is a five-week supervised clinical practical experience (SCPE). May be graded credit/no credit.

PAS 6794
Pediatrics-Supervised Clinical Practice Experience
3
* Prerequisite(s): Acceptance into Physician Assistant Program and successful completion of the didactic phase.

Provides the physician assistant student with clinical experience in practicing the principles of pediatric medicine. Facilitates experience in outpatient evaluation of patients across the lifespan (prenatal, neonatal, infant, child, adolescent) including preventive medicine and acute and chronic illness. This is a five-week supervised clinical practical experience (SCPE). May be graded credit/no credit.

PAS 6795
Emergency Medicine-Supervised Clinical Practice Experience
3
* Prerequisite(s): Acceptance into Physician Assistant Program and successful completion of the didactic phase.

Provides the physician assistant student with clinical experience in practicing the principles of emergency medicine. Facilitates experience in the evaluation of patients across the lifespan (infant, child, adolescent, adult, and elderly). Includes learning skills needed for the appropriate triage, stabilization, diagnosis, and management of patients with significant traumatic injuries, acute illnesses, acute complications of chronic illnesses, as well as the management of less life-threatening problems. This is a five-week supervised clinical practical experience (SCPE). May be graded credit/no credit.

PAS 6796
Surgery-Supervised Clinical Practice Experience
3
* Prerequisite(s): Acceptance into Physician Assistant Program and successful completion of the didactic phase.

Provides the physician assistant student with clinical experience in practicing the principles of surgery. Facilitates experiences in pre-operative, intra-operative, and post-operative evaluation and management of patients across the lifespan (adolescent, adult, and elderly) including acute, chronic, and emergent conditions in the inpatient, outpatient, and operating room settings. This is a five-week supervised clinical practical experience (SCPE). May be graded credit/no credit.

PAS 6797
Internal Medicine-Supervised Clinical Practice Experience
3
* Prerequisite(s): Acceptance into Physician Assistant Program and successful completion of the didactic phase.

Provides the physician assistant student with clinical experience in practicing the principles of internal medicine. Facilitates experiences in either an outpatients setting, inpatient setting, or a combination of both, caring for adult and elderly patients with acute, chronic, and/ or preventive care needs. This is a five-week supervised clinical practical experience (SCPE). May be graded credit/no credit.

PAS 6798
Elective Rotation I-Supervised Clinical Practice Experience
3
* Prerequisite(s): Acceptance into Physician Assistant Program and successful completion of the didactic phase.

Provides the physician assistant student with clinical experience in a specific area of interest approved by the faculty from a variety of surgical, family medicine, or internal medicine specialties or subspecialties. Enables students to learn to recognize conditions treated by these specialties, so they can refer patients appropriately and/or work in a supportive role for such specialists. This is a five-week supervised clinical practical experience (SCPE). May be graded credit/no credit.
**Physical Education Sports (PES)**

**PES 1085**
**Weight Training I**
1
An introductory weight training course which provides the student with the needed information to develop a personalized strength program. Teaches proper lifting techniques. Demonstrates methods to increase muscular strength and endurance. Includes lab. Course fee of $25 for equipment applies.

**PES 1086**
**Weight Training II**
1
An individualized intermediate course for students who wish to continue their weight training program. Students will write their own program and set standards of goals that are attainable throughout the training period. Course fee of $25 for equipment applies.

**PES 1130**
**Golf I**
1
A beginning course designed to teach students fundamental techniques, rules and etiquette of the game. Includes instruction on equipment and golf techniques such as grip, stance, and swing. Includes the setting up of a 6-person, 3-person, and 2-person scramble, includes labs, lectures, audio-visual, practice and scrimmage. Provides an opportunity to improve strategic and physical performance by working with instructor in a team setting. Can be repeated for 4 credits toward graduation.

**PES 1200**
**Basketball I**
1
An introductory course designed to teach the basic skills of shooting, passing, ball handling, rebounding, etc. Includes and practices new skills each class session. Provides regular scrimmage time. Designed for fun and good competition. Includes an exciting class tournament during the course.

**PES 1201**
**Basketball II**
1
Teaches advanced skills of shooting, passing, ball handling, rebounding, etc. Stressing fun and competition. Provides regular scrimmage time. Includes an exciting class tournament during the course.

**PES 1210**
**Volleyball I**
1
Covers basic concepts of volleyball. Teaches fundamentals and rules of the sport. Introduces new skills such as sprawl and roll. Includes labs, lectures, audio-visual, practice and inter-class participation.

**PES 1211**
**Volleyball II**
1
Teaches advanced volleyball skills and team concepts for intermediate volleyball players. Reviews fundamentals and rules. Covers 6-person, 3-person, and 2-person volleyball. Includes labs, lectures, audio-visual, practice and scrimmage.

**PES 200R**
**Intercollegiate Athletics**
1
* Prerequisite(s): Coach approval
Provides the student with the needed information to develop a personalized strength program. Teaches proper lifting techniques. Demonstrates methods to increase muscular strength and endurance. Includes lab. Course fee of $25 for equipment applies.

**PES 2400**
**Sports Injuries**
2
* Prerequisite(s): ZOOL 1090 or Permission of instructor
Prevention and care of fitness, sport, and physical education performance injuries. Emphasizes the responsibilities of the coach/PE teacher related to sport injuries. The course includes recognition, cause, prevention and care of sport injuries related to specific body parts. Explores protective equipment, environmental factors, and nutritional considerations. Reviews injuries which occur to specific populations such as adolescent and elderly athletes. Course fee of $20 for materials applies.

**PES 4900**
**Exercise Science Senior Practicum**
3
* Prerequisite(s): EXSC 3700, EXSC 4000, EXSC 4100, and University Advanced Standing
Emphasizes application of physical activity promotion in a variety of settings. Options include service learning activities, assessing athletes, performing tasks in clinical settings that address assessment and exercise prescription in the elderly, cardiac and pulmonary rehabilitation, and outpatient physical therapy.

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**Physical Education Teacher Ed (PETE)**

**PETE 2110**
**Fundamental Motor Skill Analysis and Performance**
1
Covers acquisition of fundamental motor skills and movements concepts necessary before advanced motor skills can be effectively taught. Includes motor development concepts, water safety, educational gymnastics, jump rope, and other rhythmic and fundamental skills and concepts. Requires students to assess their own skill performances as well as others' performances. Students with special needs will be encouraged to use appropriate accommodations and/or modifications.

**PETE 2120**
**Fitness for Secondary Physical Educators**
1
* Prerequisite(s): EXSC 1097
Provides and enhances preservice teachers' abilities to teach Fitness for Life and other health-related fitness concepts and classes for students in grades 6-12. Focuses on evaluation and performance of a variety of developmentally appropriate fitness activities. Trains preservice teachers to develop appropriate lesson plans for secondary students, as well as how to help individual students develop personalized fitness programs.

**PETE 2140**
**Teaching Target Games**
2
Addresses the teaching skills, content analysis, planning and experience to instruct target games such as archery, golf, bocce, bowling, and disc golf for grades 7-12. Focuses on implementing developmentally appropriate progressions for teaching key skills and strategies.

**PETE 2150**
**Elementary Physical Education SPARK Method**
2
Prepares future classroom teachers, recreation leaders, and interested health and fitness professionals to instruct physical activity classes. Focuses on experiential learning.

**PETE 2210**
**Racket Sport Analysis and Teaching Progressions**
1
Introduces skills, concepts, and rules to help teachers and coaches teach racket sports to youngsters in grades K-12. Focuses on positive transfer of learning between various racket sports, including pickleball, racquetball, badminton, speedminton, and tennis. Explores and implements developmentally appropriate progressions for key skills and strategies, especially those common to all racket sports.
### Course Descriptions

<table>
<thead>
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<th>Course Title</th>
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<td>PETE 2220</td>
<td>Target Sport Analysis and Teaching Progressions</td>
<td>1</td>
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<tr>
<td>PETE 2230</td>
<td>Individual Sports Track and Field and Tumbling</td>
<td>1</td>
<td>* Prerequisite(s): PETE 2110, PETE 2120, PETE 2210, PETE 2220, PETE 2310, PETE 2320, PETE 2330</td>
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<tr>
<td>PETE 2240</td>
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<tr>
<td>PETE 2320</td>
<td>Teaching and Analyzing Basketball and Volleyball</td>
<td>1</td>
<td></td>
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<tr>
<td>PETE 2330</td>
<td>Team Sports for the Physical Educator</td>
<td>1</td>
<td></td>
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<tr>
<td>PETE 2340</td>
<td>Teaching Recreational and Outdoor Pursuits</td>
<td>2</td>
<td></td>
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<tr>
<td>PETE 2400</td>
<td>Skill Analysis Capstone</td>
<td>1</td>
<td></td>
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<tr>
<td>PETE 2500</td>
<td>Skill Analysis and Competency for PETE Majors</td>
<td>3</td>
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<tr>
<td>PETE 2700</td>
<td>Foundations of Physical Education K-12 Teacher Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PETE 289R</td>
<td>Early Undergraduate Research in Physical Education Pedagogy</td>
<td>1 to 4</td>
<td>* Prerequisite(s): EXSC 270G and departmental approval of research proposal. Provides students an early opportunity to conduct research under the mentorship of a faculty member. Students will put in practice the theoretical knowledge gained in prior major courses. Students will create a significant intellectual or creative product that is appropriate for Physical Education Pedagogy and worthy of communication to a broader audience. May be repeated for a maximum of 6 credits toward graduation.</td>
</tr>
<tr>
<td>PETE 3100</td>
<td>Introduction to Physical Education Pedagogy</td>
<td>3</td>
<td>* Prerequisite(s): PETE 2500 or permission of instructor, University Advanced Standing</td>
</tr>
<tr>
<td>PETE 3400</td>
<td>Elementary Classroom Teachers as Movement Educators</td>
<td>2</td>
<td>* Prerequisite(s): (Admission to professional elementary education program or instructor approval) and University Advanced Standing</td>
</tr>
<tr>
<td>PETE 3450</td>
<td>Special Populations in Physical Education</td>
<td>3</td>
<td>* Prerequisite(s): PETE 3100, EDSP 340G, and University Advanced Standing</td>
</tr>
</tbody>
</table>

* Prerequisite(s): PETE 2210, PETE 2220, PETE 2330

**Notes:**
- Students must complete a minimum of 120 credits to graduate.
- Grades of C- or above are required for all courses.
- Prerequisites must be completed prior to enrollment.
- Some courses require specific minors or majors.
- Enrollment in all courses is subject to instructor approval.
- Canvas Course Mats of $67/McGraw apply.

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**Course Catalog 2023-2024**

Utah Valley University
**PETE 4200**
**Methods of Teaching Elementary Physical Education**
3  
* Prerequisite(s): PETE 2500, PETE 2700, PETE 3100 and University Advanced Standing  
* Corequisite(s): PETE 4400  
* Prerequisite(s) or Corequisite(s): PETE 2120  
Promotes the analysis and development of elementary physical education curricula. Promotes curricular concepts through reading, lecture/discussion, movement, self-appraisal, and teaching children. Requires application of educational principles and techniques necessary for effective teaching in the elementary school. Emphasizes appropriate selection of curriculum content and transition to teaching/learning models. Offers unit and lesson planning and evaluation. Includes a substantial field experience. Course lab fee of $78 applies.

**PETE 4250**
**Methods of Teaching Secondary Physical Education**
3  
* Prerequisite(s): EXSC 3550, PETE 4200, PETE 4400, acceptance into UVU’s Secondary Education program and University Advanced Standing  
Provides opportunities for application of learning from all previous courses to the successful teaching of secondary physical education. Emphasizes the attainment of all current National Initial Physical Education Standards at the acceptable level or above.

**PETE 4400**
**Assessment in Physical Education**
3  
* Prerequisite(s): (MAT 1010 or higher mathematics course), PETE 3100, and University Advanced Standing  
* Corequisite(s): PETE 4200  
Examines the need for valid assessment in K-12 physical education programs. Introduces a variety of assessment instruments. Analyzes the use of assessment to enhance learning and reliably determine student progress toward stated objectives. Promotes the development of a meaningful grading system that communicates student progress toward course objectives and SHAPE America standards.

**PETE 481R**
**Physical Education Teacher Education Internship**
1 to 4  
* Prerequisite(s): EXSC 1097, EXSC 3500, EXSC 3550, PETE 3100, and University Advanced Standing  
Encourages students to apply learning in a professional setting. Allows students practical experience working at a physical education teaching or coaching related job. May be repeated for a maximum of 8 credits toward graduation. May be graded credit/no credit.

**PETE 489R**
**Undergraduate Research in Physical Education Teacher Education**
1 to 4  
* Prerequisite(s): PETE 3100, department approval of research proposal, and University Advanced Standing  
Provides students the opportunity to conduct research under the mentorship of a faculty member. Students will put in practice the theoretical knowledge gained in prior major courses. Students will create a significant intellectual or creative product that is appropriate for Physical Education Pedagogy and worthy of communication to a broader audience. May be repeated for a maximum of 8 credits toward graduation.

**PETE 4900**
**Student Teaching Seminar for Physical Education**
1  
* Prerequisite(s): Admission to Professional Education Program, successful completion of all professional education and content courses, and University Advanced Standing  
* Corequisite(s): EDSC 4850  
Supports student teachers during their student teaching experience. Examines each student’s teaching experiences. Encourages students to integrate learning from all professional education and content courses. Discusses concerns related to current teaching experiences as well as future experiences. Investigates job seeking criteria and opportunities.

**Course Descriptions**

**Philosophy (PHIL)**

**PHIL 1000**
**Introduction to Philosophy**
HH 3  
Designed to investigate major philosophical ideas from the Pre-Socratic era to the present. Students should develop philosophical skills through supervised analysis of readings in epistemology (knowledge), metaphysics (reality), ethics (values), and social philosophy. Emphasizes the articulation, assessment, and discussion of fundamental religious, social, political issues through class discussions, lectures, media, and writing projects.

**PHIL 100H**
**Introduction to Philosophy**
HH 3  
* Prerequisite(s): ENGL 1010 or ENGH 1005  
Designed to investigate major philosophical ideas from the Pre-Socratic era to the present. Students should develop philosophical skills through supervised analysis of readings in epistemology (knowledge), metaphysics (reality), ethics (values), and social philosophy. Emphasizes the articulation, assessment, and discussion of fundamental religious, social, political issues through class discussions, lectures, media, and writing projects.

**PHIL 1110** (Cross-listed with: MAT 1110)
**Introduction to Mathematical Reasoning**
3  
* Prerequisite(s): One of the following (within department time limits): MAT 1010, MAT 1015, MAT1030 or higher, or STAT 1040 or higher, with a grade of C- or higher.  
Focuses on the ability to reason soundly and formulate arguments in mathematics, logic and philosophy. Covers how sound arguments and good reasoning methods allow us to effectively search for the truth regarding any mathematical or philosophical question. Covers the reasoning methods used in mathematics and the way the methods are applied outside of mathematics in areas such as language and the sciences. Describes how these methods are effective in producing mathematical knowledge and understanding as well as their epistemic shortcomings. Includes reasoning with propositional logic, sound argumentation, mathematical proof, visualization and diagrammatic reasoning, the role of rigor and intuition, and the scientific application of mathematics.

**PHIL 120R**
**Philosophy Forum**
1  
Introduces students to the interchange of traditional and contemporary philosophical issues in various venues. Provides enriched learning situations in which students may interact with noted guest scholars. Includes lectures, symposia, field trips, outreach projects, and activities oriented to engage students in philosophical discourse. Meets in conjunction with the Philosophy Club. Grading is on a credit/no credit basis. May be repeated for a total of four credits toward the AA/AS, BA/BS degree.

**PHIL 1250**
**Introduction to Logic and Critical Thinking**
HH 3  
Introduces fundamental elements of informal logic and applies these to critical thinking. Covers subjects and concepts such as (but not limited to) definition, argument, fallacy, deduction versus induction, validity, soundness, induction, causal reasoning, inductive reasoning, analogical reasoning, and probability.

**PHIL 130R**
**Ethics Forum**
1  
Introduces students to a wide variety of public policy and ethical issues. Provides enriched learning situations in which students are exposed to noted guest scholars and other lecturers. Includes attendance and participation at specified events by engaging in discussion of relevant issues. May be repeated for a maximum of 3 credits toward graduation.
PHIL 1610
Introduction to Western Religions
3

For students majoring in humanities-related disciplines and other students interested in the academic study of religion. Presents the comparative study of the history, ritual, “theology,” and ethical beliefs of the major western religions including Judaism, Christianity, Islam, Zoroastrianism, Baha’i, and nontraditional religious belief in the western world. Explores similarities and differences between them by examining the primary sources and sacred texts along with the unique beliefs and practices of each tradition.

PHIL 1620
Introduction to Eastern Religions
3

For students majoring in humanities-related disciplines and other students interested in the academic study of religion. Presents the comparative study of the history, ritual, “theology,” and ethical beliefs of the major eastern religious traditions including Hinduism, Jainism, Buddhism, Sikhism, Taoism, Confucianism, and Shintoism. Explores similarities and differences between them by examining the primary sources and sacred texts along with the unique beliefs and practices of each tradition.

PHIL 2000
Formal Logic I
3

Introduces the basic elements of categorical logic as well as formalized propositional logic and formalized first-order quantifiational logic. Includes Venn diagrams, proofs, truth tables, tableaux and translations from natural language.

PHIL 2050
Ethics and Values
3

* Prerequisite(s): ACT scores of 29+ in English and Reading taken within the last five years or completion of ENGL 1010 or ENGL 101H with a grade of C- or higher.

Challenges students to explore and clarify their values; critically read works of philosophy, literature, religion, and history toward understanding the basis of their ethical views; and read, study, research, discuss, and write about difficult ethical issues. Focuses on issues of good vs. evil, justice vs. injustice, equality vs. inequality, and the necessity of defining and examining happiness and values. Engages students in serious reflection on issues of ethics and values as they relate to the students' own lives.

PHIL 205G
Ethics and Values
IH

* Prerequisite(s): ACT scores of 29+ in English and Reading taken within the last five years or completion of ENGL 1010 or ENGL 101H with a grade of C- or higher.

Challenges students to explore and clarify their values; critically read works of philosophy, literature, religion, and history toward understanding the basis of their ethical views; and read, study, research, discuss, and write about difficult ethical issues. Focuses on issues of good vs. evil, justice vs. injustice, equality vs. inequality, and the necessity of defining and examining happiness and values. Engages students in serious reflection on issues of ethics and values as they relate to the students' own lives.

PHIL 205H
Ethics and Values
IH

* Prerequisite(s): ACT scores of 29+ in English and Reading taken within the last five years or completion of ENGL 1010 or ENGL 101H or ENGH 1005 with a grade of C- or higher.

Systematically explores the core issues in the realm of ethics and values, especially as they relate to life in the contemporary world. Focuses on good versus evil, justice versus injustice, and the necessity of ideals and equality. Emphasizes reading and writing skills at a more challenging level.

PHIL 2110
Ancient Greek Philosophy WE
3

* Prerequisite(s): ENGL 1010 or ENGL 101H or ENGH 1005 or PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or permission of the instructor

Provides students with an overview of the history and evolution of philosophical thought from its origins in pre-Socratic philosophers through Aristotle. Reviews the influence of pre-Socratic ideas upon the work of Plato and Aristotle and the impact of Greek philosophy on the evolution of Western philosophy, science, and culture. Requires writing-intensive assignments.

PHIL 2130
Medieval Philosophy
IH

* Prerequisite(s): PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or permission of the instructor

Provides an overview of the development of philosophical thought from the Hellenistic period through Thomas Aquinas. Covers the influence of Ancient Greek philosophy and the impact of Christianity upon the evolution of Western philosophical thought. Carefully considers the conceptions of God, nature, the human being, and morality advanced during this period; along with the profound impact Medieval philosophy had on the European Enlightenment and modern philosophy.

PHIL 2150
Early Modern Philosophy
IH

* Prerequisite(s): ENGL 1010 or ENGH 1005 or PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or permission of the instructor

Provides an overview of the history and evolution of ideas in Western culture during the modern period of philosophy from Descartes through Kant. Focuses on the dialogue between rationalism and empiricism, and examines Kant's attempt to bridge the gap between these two approaches. Requires writing-intensive assignments.

PHIL 281R
Internship
1 to 6

* Prerequisite(s): Permission from departmental chair

Allows philosophy students to receive credit for service as an intern in a governmental, not for profit, or private agency apart from their regular employment. Provides practical and research development in selected areas of service related to students' academic and/or professional interests or goals. Internship must be supervised by agency representative. Must be approved by philosophy internship advisor and department chair and written contracts must be completed and signed. Repeatable for a maximum of six credit hours toward graduation. May be graded credit/no credit.

PHIL 290G
Marginalized Philosophies
IH

* Prerequisite(s): ENGL 1010 or ENGL 101H or ENGH 1005 or PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or permission of the instructor

Explores philosophical traditions and approaches outside or at the margins of the philosophical mainstream as it appears in contemporary North America, such as Asian philosophy, African philosophy, Indigenous philosophy, comparative philosophy, queer theory, philosophies of gender and disability, Black philosophy, liberation philosophy, and feminist philosophy. Introduces students to the complexity and diversity of philosophical practice in an increasingly globalized world.

PHIL 290R
Independent Study
1 to 3

* Prerequisite(s): ACT scores of 29+ in English and Reading taken within the last five years or completion of ENGL 1010 or ENGL 101H with a grade of C- or higher.

Provides independent study as directed in reading and individual projects. Request must be submitted for approval by the department. Students may do independent study for one, two or three credits with a limit of three credits applying toward graduation with an AA/AS degree.
Provided an opportunity for second year students to do in-depth research within the discipline of Philosophy. Study is limited to advanced work beyond which can be completed in existing, available classes. A proposal must be submitted and approved by the department prior to enrollment.

PHIL 3000
Formal Logic II
3
* Prerequisite(s): PHIL 2000 and University Advanced Standing
Continues the exploration of first-order quantificational logic. Includes discussion of multiple quantification, formal syntax and semantics, proofs, truth-tables, tableaux, algebra of classes, set theory, and the metalogical properties of formal systems.

PHIL 3040 (Cross-listed with: COMM 3040)
Media Ethics
3
* Prerequisite(s): University Advanced Standing
Covers ethical issues in media communication. Includes discussions of ethnicity, gender, nationalism, and conflict. Analyzes development of moral agency. Examines tensions between individual freedoms and social responsibilities. Addresses ethical questions in the context of current struggles within and over corporate and public media.

PHIL 3150
Philosophical Issues in Feminism
3
* Prerequisite(s): PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Introduces students to various themes in feminist philosophy. Focuses on the concepts of sex and gender, including such issues as the nature, explanatory import and normative implications of biological sex differences, the sex/gender distinction, the idea of gender as a social construct, the structure and impact of gender oppression and the nature and value of the norms of femininity and masculinity.

PHIL 3160
Gender Values Knowledge and Reality
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Examines the impact of gender on specific areas of philosophy, including, but not limited to, aesthetics, ethics, social and political philosophy, epistemology, metaphysics, philosophy of religion, philosophy of science, philosophy of language, and the history of philosophy. Examines the meaning of gender with an emphasis on the diversity of experience across varying gender roles.

PHIL 3200
Metaphysics
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Acquaints the student with competing abstract philosophical problems concerning the general nature and structure of reality. Examines the history of and problems of metaphysics including, but not limited to: personal identity, causation, causal determinism, the nature of universals, anti-realism, realism, change, substance and essence, space and time, and philosophy of mind.

PHIL 320G
Metaphysics
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Acquaints the student with competing abstract philosophical problems concerning the general nature and structure of reality, with a focus on topics that pertain to social justice. Examines the history of and problems of metaphysics including, but not limited to: gender, sexual orientation, race, addiction, disability, and mental illness.

PHIL 3300
Epistemology
3
* Prerequisite(s): (PHIL 1000 or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Explores diverse theories of knowledge from within the Western tradition. Includes concepts of truth and falsity, skepticism, justification, identity, and intentionality. Discusses empiricism, rationalism and twentieth-century Philosophy of Mind.

PHIL 3400
Philosophy of Science
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Explores fundamental issues in the philosophy of science. Includes the structure of the scientific method, scientific explanation, and the epistemological status of scientific laws and theories.

PHIL 3450
Philosophy of Childhood
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Examines philosophical theories and models of childhood, their implication on contemporary conceptions, controversial social, philosophical, legal, educational, and political issues pertaining to childhood, and the capacity of children to engage in philosophical dialogue.

PHIL 3460
The Ethics of Human/Animal Relationships
3
* Prerequisite(s): (PHIL 2050 or PHIL 205G or PHIL 205H or PHIL 1000 or PHIL 100H) and University Advanced Standing
Introduces a comprehensive philosophical and academic investigation of the relationship between human and nonhuman animals. Develops and refines critical thinking and discursive strategies for evaluating traditional and contemporary philosophical, legal, religious, moral, and social considerations that inform human attitudes about nonhuman animals. Challenges students to analyze a range of pertinent topics, including, but not limited to: animal welfare, animal liberation, animal sentience and consciousness, animal rights, the animal ethics movement, the animal rights movement, religious attitudes, animals, animal law, and animal activism.

PHIL 3470
Pragmatism and American Philosophy
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Introduces students to various philosophical themes and figures unique to classical American Philosophy and American Pragmatism. Focuses on assorted thematic topics characteristic of American Pragmatism, as well as the work of the American transcendental school and various philosophical writings from American women, such as Jane Addams, and African-American philosophers, such as Alain Locke.

PHIL 3510
Business and Professional Ethics
3
* Prerequisite(s): (PHIL 2050 or PHIL 205H or PHIL 205G) and University Advanced Standing
Develops concepts and philosophies essential to understanding ethical concerns in today's business and professions. Presents current case studies and theories about business ethics and helps students determine their own attitudes about contemporary and historical business morality. Examines a variety of approaches, solutions, and methods of critically thinking about ethics in business and professions.
PHIL 3520
Bioethics
3
* Prerequisite(s): (PHIL 2050 or PHIL 205H or PHIL 205G or instructor approval) and University Advanced Standing

Shows how ethical theories can help provide frameworks for moral judgment and decision-making in the wake of recent scientific, technological, and social developments which have resulted in rapid changes in the biological sciences and in health care. Topics include: codes of ethics, ethical theories, and practical applications, such as: professional-patient relationships, genetic engineering, euthanasia, managed health care, end-of-life issues, abortion, and reproductive technologies.

PHIL 3530
Environmental Ethics
3
* Prerequisite(s): (PHIL 2050 or PHIL 205H or PHIL 205G) and University Advanced Standing

Surveys the global history of moral and ethical and moral deliberation and judgment, as well as race, gender, and sexuality in ethics.

PHIL 357R
Moral Reasoning Through Case Studies Ethics Bowl
3
* Prerequisite(s): (PHIL 2050 or PHIL 205G or PHIL 205H) and University Advanced Standing

Studies complex, contemporary ethical issues and develops an advanced understanding of principles and theories studied in other ethics and moral theory courses. Uses a case study approach to ethical inquiry and introduces students to the content, format, rules, and procedures of the National Collegiate Ethics Bowl competition. Required for those students who wish to participate in the regional and national competitions and provides a challenging opportunity for others who are interested in participating in exciting ethical deliberations and discussions. May be repeated for up to 9 credits for graduation with approval of instructor and department chair.

PHIL 3600
Philosophy of Religion
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing

For students majoring in humanities related disciplines and other students interested in the academic study of religion. Teaches critical thinking methods and strategies regarding traditional philosophical issues in religious belief and practice. Explores various topics including the traditional arguments for the existence of God, religious experience, the relation between faith and reason, religious pluralism, and the traditional problem of evil.

PHIL 3610 (Cross-listed with: RLST 3610)
Introduction to Christian Theology
3
* Prerequisite(s): PHIL 1610 and University Advanced Standing

Examines key developments and conceptions in Christian theology through historical and conceptual methodologies. Explores the relationship between religious and secular approaches to ethics in their approach to questions of war, economics, politics, and/or other relevant issues.

PHIL 364G
Foundations of Buddhist Philosophy
3
* Prerequisite(s): University Advanced Standing

Examines ancient and classical Indian Buddhist philosophy. Engages students in philosophical thinking about Buddhist philosophical topics such as personhood, knowledge, reality, and ethics. Introduces students to Buddhist meditation practices and the methodology of cross-cultural philosophy. Develops competence in cross-cultural philosophical thinking by placing ancient Buddhist philosophical views and methodologies into dialogue with the students own world views.

PHIL 3650 (Cross-listed with: RLST 3650)
Approaches to Religious Studies
3
* Prerequisite(s): (PHIL 2050 or PHIL 205H or PHIL 205G or instructor approval) and University Advanced Standing

For students majoring in humanities-related disciplines and other students interested in the academic study of religion. Teaches methodological approaches and critical thinking strategies in the study of religion. Explores various disciplines in their approaches to religious belief and practice. Includes the study of such thinkers as David Hume, Immanuel Kant, Friedrich Schleiermacher, Rudolf Otto, William James, Ludwig Feuerbach, Soren Kierkegaard, Max Weber, Emile Durkheim, John Hick, and Rene Girard.

PHIL 366R (Cross-listed with: RLST 366R)
Issues in Religious Studies
3
* Prerequisite(s): (PHIL 2050 or PHIL 205H or PHIL 205G or instructor approval) and University Advanced Standing

For students majoring in humanities-related disciplines and other students interested in the academic study of religion. Addresses specific topics and theoretical approaches related to religious studies. Topics may include religion and violence, religion and public discourse, religious ritual, etc. Subject matter varies by semester and is repeatable for a total of 9 hours of credit.

PHIL 367G (Cross-listed with: RLST 367G)
Engaging Religious Diversity
1 to 3
* Prerequisite(s): University Advanced Standing

Explores how religious communities engage one another and examines the implications of these interactions for religious conflict, spiritual identity, and the role of religion in societal contexts. Employs the tools from diverse disciplines to study the phenomenon of religious encounter in both historical and contemporary contexts. Investigates theories of religious diversity, American religious history, interreligious leadership practices, and narrative encounters.
PHIL 3680 (Cross-listed with: RLST 3680)  
Interreligious Studies Practicum  
3  
* Prerequisite(s): University Advanced Standing  
* Corequisite(s): PHIL 367G or RLST 367G  
Engages religious, spiritual, and secular diversity through experiential learning opportunities. Explores how religious and worldview diversity affects the ethical, social, civil, and personal dimensions of the human experience. Provides opportunities for students to apply the theories and principles studied in the other Interreligious Studies Certificate courses.

PHIL 3700  
Social and Political Philosophy  
3  
* Prerequisite(s): (PHIL 2050 or PHIL 205H or PHIL 205G) and University Advanced Standing  
Addresses ethics on the social level by exploring a variety of answers to the question: What is the best social structure? Covers concepts of justice, equality, liberalism, communitarianism, capitalism, democracy, feminism, multi-culturalism, and other topics.

PHIL 3710  
Philosophy of Law  
3  
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing  
Introduces topics in the philosophy of law, such as the role, nature, extent, and justification of law. Investigates challenging questions about the rule of law, civil disobedience, the relationship between law and morality, justice, equality, responsibility, and punishment.

PHIL 3750  
Marxist Philosophy  
3  
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing  
Examines the political philosophy of Karl Marx and looks at Marx's legacy for 20th century and contemporary philosophy. Includes Marx's criticism of Hegel and Hegelian Idealism, Marx's philosophy as "ideology critique," Marx's "materialist" philosophy, Marx's critique of capital, and several of the following: early 20th-century Marxist political philosophy, critical theory, structuralist Marxism, phenomenological Marxism, materialist feminism, and post-Marxism.

PHIL 3800 (Cross-listed with: HUM 3800)  
Aesthetics  
3  
* Prerequisite(s): University Advanced Standing  
Studies aesthetics as perceived by the disciplines of philosophy, psychology, sociology, anthropology, history, and others. Analyzes art forms, including the visual arts, literature, music, and theater from the perspectives of philosophers such as Plato, Aristotle, Kant, Hume, Dewey, Danto, Bell, Collingwood, Thoreau, and Dickie.

PHIL 3810  
Existentialism and Phenomenology  
3  
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing  
Explores two of the most important and influential traditions within modern and contemporary philosophy. Covers figures such as Kierkegaard, Nietzsche, Husserl, Heidegger, Sartre, Camus, Merleau-Ponty, de Beauvoir, Gadamer, Levinas, Ricoeur, and Derrida, and issues in epistemology, metaphysics, ethics and aesthetics. The course focuses in particular on the notions of subjectivity, agency, free-will, and truth.

PHIL 3820 (Cross-listed with: HUM 3820)  
Philosophy through Literature  
3  
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing  
Provides students with an interdisciplinary approach to the study of philosophy through literature. Gives students the opportunity to read some of the most engaging thinkers and how they offer differing perspectives through a variety of texts. Breaks down some of the strict divisions placed between philosophical and literary texts.

PHIL 3830  
Deconstruction and Hermeneutics  
3  
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or Instructor Approval) and University Advanced Standing  
Studies the interpretive methods of deconstruction and hermeneutics, two important traditions to emerge in late 20th century philosophy. Analyzes various works from the history of philosophy through the frameworks of deconstruction and hermeneutics. Tracks the difference between knowledge and understanding, particularly through the writings of Jacques Derrida and Hans-Georg Gadamer. Includes the study of other relevant traditions such as post-structuralism, French feminism, and literary criticism.

PHIL 3840  
Topics in Comparative Philosophy  
3  
* Prerequisite(s): PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 and University Advanced Standing  
Provides students the opportunity to intensively study topics, figures, and aspects of non-Western and comparative philosophy beyond the scope of introductory classes (e.g., PHIL 1620 and 290G). Examines either a non-Western tradition/topic/text (e.g., the 'Analects' of Confucius, the 'Bhagavad Gita', Japanese aesthetics, Mayan metaphysics) or a major issue in philosophy approached comparatively (e.g., Chinese and Greek philosophies of science). Emphasizes comparative methodology itself, such as how to avoid the twin dangers of over-generalized stereotype and cherry-picked facts when dealing with other cultures. Focuses on the close study of primary texts, including considerations of translation and cultural sensitivity. Encourages strong critical thinking, writing, and rhetorical skills, as well as growth into more worldly and informed philosophy majors. May be repeated for a maximum of 9 credits toward graduation.

PHIL 3860  
Topics in Ancient Philosophy  
3  
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or Instructor Approval) and University Advanced Standing  
Provides students the opportunity to study aspects of ancient Greek philosophy intensively. Focuses on an aspect of the thought of a particular philosopher, such as Plato or Aristotle, or on a particular theme in Ancient philosophy, such as Ethics or Metaphysics. Emphasizes close study of primary texts. Develops strong critical thinking, writing and rhetorical skills. May be repeated up to 3 times for a total of 9 credits.

PHIL 3880  
Topics in Medieval and Early Modern Philosophy  
3  
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or Instructor Approval) and University Advanced Standing  
Provides students the opportunity to study aspects of medieval and early modern philosophy intensively. Focuses on the thought of a particular philosopher or set of philosophers or a particular theme in medieval and early modern philosophy. Emphasizes close study of primary texts. Develops critical thinking, writing, and comprehension skills. May be repeated up to 3 times for a total of 9 credits.
PHIL 400R
Great Philosophers
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Provides an in-depth look at a great figure in Philosophy across the topics of metaphysics, epistemology, ethics, social and political philosophy, aesthetics, and other themes. Addresses the contribution of the thinker to the history of Philosophy. Repeatable up to 12 credit hours with different topics.

PHIL 4120
Philosophy of Education
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005 or PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Examines history, issues, and philosophical theories of education with attention to associated metaphysical, epistemological, ethical, political, and ideological assumptions.

PHIL 4130
Nineteenth Century European Philosophy
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Introduces students to the changes in 19th century European philosophy regarding the nature of truth, knowledge, human freedom, and nature. Focuses on the attempts of German Idealism to formulate a systematic science of reality. Discusses the possibilities and problems with conceiving truth as both complete and absolutely knowable. Analyzes the philosophies of nature, art, human freedom, society, and ethics.

PHIL 4140
History of Analytic Philosophy
3
* Prerequisite(s): (PHIL 2150 or instructor approval) and University Advanced Standing
Explores the history of Analytic Philosophy from the late 19th century to the present. Includes the study of such figures as Bertrand Russell, B. Bolzano, Gottlob Frege, Ludwig Wittgenstein, Rudolph Carnap, G.E. Moore, J.L. Austin, Gilbert Ryle, W.V.O. Quine, and Fredrich Waismann. Studies methods of movements such as Logical Empiricism, and Ordinary Language Philosophy. Explores views such as Logicism, Logical Atomism, Holism, Verificationism, Logical Behaviorism, Psychologism, Nominalism, and Realism.

PHIL 4150
History of Continental Philosophy
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Explores continental European philosophy. Reviews Kant's critical philosophy. Examines Hegel's attempt to go beyond the limitations of critical philosophy by creating a systematic, dialectical philosophy. Examines the following traditions as responses to Hegel: Western Marxism, Existentialism, Phenomenology, Structuralism, Post-Structuralism and Deconstruction, Post-Modernism, Psychoanalysis, and Feminism.

PHIL 416G
History of Chinese Philosophy
3
* Prerequisite(s): PHIL 2050 and University Advanced Standing
Explores the philosophies of China. Interprets major Chinese philosophical texts and figures, tracing the development of Chinese philosophy’s key themes and questions across the centuries. Examines the “classical era” of Chinese thought, the Warring States Period, in which the foundations of all subsequent tradition emerged: Confucianism, Daoism, Mohism, Legalism; the introduction of Buddhism to China throughout the medieval period, culminating in the Neo-Confucian movements of the late imperial era; and modern Chinese political theory.

PHIL 4200
Symbolic Logic
3
* Prerequisite(s): PHIL 3000 and University Advanced Standing
Discusses the philosophical motivation for the formalization of logic. Introduces the metatheory for propositional and quantificational logic. Includes proofs of the soundness and completeness of quantificational logic. Discusses the philosophical issues surrounding the results proved. May also include some discussion of important results in computability.

PHIL 4300 (Cross-listed with: HUM 4300)
Environmental Aesthetics
3
* Prerequisite(s): (PHIL 1000, PHIL 100H, PHIL 2050, PHIL 205H, PHIL 205G, ENST 3000, HUM 1010, HUM 101H, HUM 101G, or HUM 3500) and University Advanced Standing
Introduces students to emerging themes in environmental aesthetics. Evaluates concepts and attitudes toward nature including, but not limited to, the concept of beauty in natural and human-made environments from a cross-cultural perspective. Studies environmental formalism, cognitivism and non-cognitivism, as well as divergent spiritual, ecological, religious, and moral approaches to the appreciation of nature.

PHIL 430R
Topics in Epistemology
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Provides an opportunity for students to conduct an in-depth study of specific topics in epistemology. Topics may include the foundations of knowledge; the nature of justification; the problem of skepticism, and the nature of scientific, religious, and/or moral knowledge. Emphasizes the rigorous analysis of arguments and offers the opportunity for students to develop their own original critical analysis and argument. May be repeated for a maximum of 9 credits toward graduation.

PHIL 4460
Philosophy of Psychology
3
* Prerequisite(s): (PHIL 2050, PHIL 205G, PHIL 205H, PSY 1010, or PSY 101H) and University Advanced Standing
Offers an interdisciplinary exploration of questions that arise when psychologists explore cognition and behavior concerning philosophical issues and when philosophers explore questions that rely on empirical claims about cognition and behavior. Surveys topics such as situationism and virtue ethics, moral intuitions, well-being, emotions, moods, positive illusions and free will, automaticity, confabulation, mental illness and psychopathy.

PHIL 4461 (Cross-listed with: PSY 4461)
Moral Psychology
3
* Prerequisite(s): (PHIL 2050 or PHIL 205G or PHIL 205H or PSY 1010 or PSY 101H) and University Advanced Standing
Analyses questions about how people engage in moral thinking and in moral behavior from the perspectives of the philosophy of mind, ethics and psychology. Explores topics such as virtue and character, reason and passion, altruism and egoism, agency and responsibility, and moral intuitions.

PHIL 4470
Philosophy of Mind
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Explores central questions concerning the nature of the mind. Includes such topics as personal identity, the mind-body problem, other minds, mental causation, and externalism.
PHIL 4480
Philosophy of Language
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing

PHIL 450R
Interdisciplinary Senior Ethics Seminar
3
* Prerequisite(s): Instructor approval and University Advanced Standing
For integrated studies majors and other interested students. Addresses ethical issues dealing with discipline specific subject matter, i.e., nursing, behavioral, physical, social sciences, etc. Subject matter will vary each semester. Taught by Philosophy faculty in cooperation with faculty of appropriate departments. Repeatable three times for credit with different subjects. See Philosophy Department office for specific topics.

PHIL 451R
Ethical Theory Seminar
3
* Prerequisite(s): (PHIL 2050 or PHIL 205H or PHIL 205G or instructor approval) and University Advanced Standing
Offers detailed investigation of selected ethical theories central to the Western philosophical tradition. Repeatable up to 12 credit hours with different topics.

PHIL 452G
Topics in Value Theory
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Provides an opportunity for students to conduct an in-depth study of specific topics in value theory. Considers theoretical questions about the nature of value, meaning, and purpose in human life. Focuses on theoretical inquiries into the value of particular human activities, especially as they pertain to civic engagement. Considers topics including, but not limited to, political constitution, continental rationalism, empiricism, personal identity, free will, theories of truth and modal logic. May be repeated for a maximum of 9 credits toward graduation.

PHIL 452R
Topics in Value Theory
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Provides an opportunity for students to conduct an in-depth study of specific topics in value theory. Considers theoretical questions about the nature of value, meaning, and purpose in human life. Includes the objectivity or subjectivity of value; the sources of value in human life; the nature and importance of art; the value of relationships, community, humor, and/or play; and related theoretical inquiries into the value of particular human activities. Emphasizes the rigorous analysis of arguments and offers the opportunity for students to develop their own original critical analysis and argument. May be repeated for a maximum of 9 credits toward graduation.

PHIL 458R
Philosophy Capstone Prep
1
* Prerequisite(s): PHIL 1250 or PHIL 2110 or PHIL 2150, University Advanced Standing
Prepares students to successfully complete a Philosophy Research Capstone thesis. Provides resources for formulating a thesis, identifying faculty adviser(s), and completing a one-page thesis proposal and an annotated bibliography of works to be consulted for the thesis project. May be repeated for a maximum of 2 credits toward graduation.

PHIL 481R
Internship
1 to 6
* Prerequisite(s): Departmental chair approval and University Advanced Standing
Allows philosophy students to receive credit for service as an intern in a governmental, not for profit, or private agency apart from their regular employment. Provides practical and research development in selected areas of service related to students' academic and/or professional interests or goals. Internship must be supervised by agency representative. Must be approved by philosophy internship advisor and department chair and written contracts must be completed and signed. Repeatable for a maximum of 6 credit hours toward graduation. May be graded credit/no credit.

PHIL 482R
Independent Study
1 to 3
* Prerequisite(s): Departmental Approval and University Advanced Standing
Provides independent study as directed in reading and individual projects. May be repeated for up to 6 total credits toward graduation.

PHIL 4910
Philosophy Research Capstone WE
3
* Prerequisite(s): (PHIL 1250 or PHIL 2110 or PHIL 2150), PHIL 480R, Senior Standing, and University Advanced Standing
To be taken during the student's last semester in the baccalaureate program. Includes writing a senior thesis, which points to post-baccalaureate career path or graduate school goals. Covers advanced Philosophy research and writing instruction. Encourages students to explore the ethical dimensions of their desired professional or graduate research interests. Involves the creation of a professional portfolio helpful in applying to graduate school or seeking employment.

PHIL 492R
Advanced Topics in Philosophy
1 to 3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Examines advanced topics philosophy. Examples include ancient theories of political constitution, continental rationalism, empiricism, personal identity, free will, theories of truth and modal logic. May be repeated for a maximum of 9 credits toward graduation.

Physical Science (PHSC)

PHSC 1000
Survey of Physical Science
3
* Prerequisite(s): (PHIL 1000 or PHIL 100H or PHIL 2050 or PHIL 205H or PHIL 205G or PHIL 2110 or PHIL 2150 or instructor approval) and University Advanced Standing
Survey of the exciting world of science and explains the basic scientific laws and models by which the physical universe may be understood. Stresses historical aspects and the impact of physical science on modern society. Draws topics from the fields of physics, chemistry, geology, meteorology and astronomy. Uses lectures, dramatizations, audio-visual presentations, and demonstrations.

PHSC 281R
Cooperative Work Experience
2 to 9
* Prerequisite(s): Approval of Cooperative Coordinator
Designed for Physical Science Majors. Provides paid work experiences in the student's major. Course content is individualized, with students setting objectives in consultation with their faculty coordinator and their on-the-job supervisor. Credit is determined by the number of hours a student works during the semester. May be graded credit/no credit.
Course Descriptions

Physics (PHYS)

PHYS 1010
Elementary Physics
3
For students interested in a one-semester survey physics course. Covers the fundamentals of classical and modern physics. Includes mechanics, fluids, heat, waves and sound, electricity and magnetism, light, optical, relativity, atomic and nuclear physics. Includes lectures, classroom interaction, demonstration, and problem solving. Canvas Course Mats $96/ Pearson applies.

PHYS 1090
Pathways to Physics
1
Examines physics as a field of study. Introduces students to the UVU physics program and faculty research. Develops learning strategies specific to physics coursework and an awareness of available career paths in the sciences.

PHYS 1100
Introductory Math Techniques for Physics and Engineering
3
* Prerequisite(s): Math 1050 or Math 1080

Is an application-oriented, hands-on introduction to physics and engineering mathematics. Teaches the tools needed to solve problems commonly encountered in the first two years of core physics and engineering courses. Presents topics within the context of a physics or engineering problem, and reinforces through extensive examples and computational tools taken from physics and engineering courses.

PHYS 1600
Introduction to Nanotechnology and Cleanroom Processes
3
* Prerequisite(s): MATH 1050

Surveys the principles and processes behind nanotechnology and nanomaterials, basic tools for fabrication and characterization of nano and microstructures, and applications of nanotechnology. Examines fundamental principles and laws of electronics, atomic physics, solid-state physics and chemistry that are essential to nanotechnology will be introduced. Includes conducting virtual reality training exercises for tools such as electron microscopy, atomic force microscopy, nanolithography, and sputter deposition, and they will then complete hands-on laboratory experiments with these instruments. Covers special topics such as graphene, carbon nanotubes, quantum dots and molecular electronics.

PHYS 1700
Descriptive Acoustics
3
* Prerequisite(s): MAT 1010 or higher

Introduces the science of sound, music and speech and the physical principles and technology used to manipulate, store and broadcast it.

PHYS 1750
The Acoustics of Music
3
* Prerequisite(s): MAT 1010 or higher

DisCOVERS the principles of physics that form the basis of music and provide the foundation for the design of musical instruments. Investigates the physics of music production, transmission and reception, and perception. Examines the five fundamental elements of the musical instrument, namely power supply, oscillator, resonator, amplifier, and pitch modifiers. Satisfies one general education physical science elective.

PHYS 1800
Energy You and the Environment
3
* Prerequisite(s): MAT 1010 or higher

Answers the question, "Where does energy come from, and where does it go?". Examines the methods of energy production, distribution, and consumption in society and their environmental impacts. Examines the personal impact of energy use on the environment and explores alternatives, such as fuel cell cars, and a hydrogen economy. Examines prospects for alternative energy sources, such as solar, wind, nuclear and geothermal energy at length. Intended for non-science majors interested in energy use in society.

PHYS 1850
The Physics of Aviation
3
* Prerequisite(s): MAT 1010 or higher

Uses the medium and modes of flight and modern aviation to introduce elementary physics. Includes vectors, kinematics, forces, momentum, energy, torques, elementary fluid dynamics and thermodynamics. Uses Algebra extensively. Presents and develops concepts of physics as exercises in modeling constructed from examples used in aviation. Canvas Course Mats $72/Pearson applies.

PHYS 2010
College Physics I
4
* Prerequisite(s): MATH 1050 or higher
* Corequisite(s): PHYS 2015

For students desiring a two semester algebra based course in applied physics. Covers mechanics, fluids, waves, heat, and thermodynamics. Canvas Course Mats $78/ Pearson applies.

PHYS 2015
College Physics I Lab
1
* Corequisite(s): PHYS 2010

Designed to accompany PHYS 2010. Provides firsthand experience with the laws of mechanics, fluids, waves, heat, thermodynamics, and data analysis. Course Lab fee of $15 applies.

PHYS 2020
College Physics II
4
* Prerequisite(s): PHYS 2010
* Corequisite(s): PHYS 2225


PHYS 2025
College Physics II Lab
1
* Corequisite(s): PHYS 2020

Designed to accompany PHYS 2020. Provides firsthand experience with the laws of electricity, waves, optics, nuclear physics, and data analysis. Course Lab fee of $15 applies.

PHYS 2210
Physics for Scientists and Engineers I
4
* Prerequisite(s): MATH 1210 or PHYS 1100
* Corequisite(s): PHYS 2215

Introduces mechanics, fluid dynamics, thermodynamics, vibrations, and waves to the budding scientist or engineer utilizing the quantitative tools of calculus. Includes 1 hour of recitation per week.

PHYS 2215
Physics for Scientists and Engineers I Lab
1
* Corequisite(s): PHYS 2210

Designed to accompany PHYS 2210. Provides firsthand experience with the laws of mechanics, therm physics, vibrations, and waves. Introduces methods of scientific data analysis. Course Lab fee of $15 applies.

PHYS 2220
Physics for Scientists and Engineers II
4
* Prerequisite(s): PHYS 2210
* Corequisite(s): PHYS 2225

Continues from PHYS 2210. Covers electricity and magnetism, including Maxwell's equations. Develops the theory of electromagnetic waves and optics. Presents introductory electronics and modern physics topics. Includes one hour of recitation.
**PHYS 2225**
Physics for Scientists and Engineers II Lab
1
* Corequisite(s): PHYS 2220
Accompanies PHYS 2220. Provides students first hand experience with the laws of electricity and magnetism, electric circuits, and optics. Emphasizes principles of data collection and analysis.

**PHYS 2500**
Elementary Fluids and Thermal Physics
3
* Prerequisite(s): PHYS 2220
* Corequisite(s): MATH 2210
Presents a mathematically rigorous introductory description of fluid mechanics, thermodynamics, and heat transfer beyond that presented in PHYS 2210. Presents applications in both physics and engineering.

**PHYS 2700**
Biophysics
3
* Prerequisite(s): PHYS 2220, PHYS 2225, and BIOL 1010 or BIOL 1610
Covers the thermodynamics and statistical mechanics of biological systems, the mechanics of biologically important molecules, and the laws of fluid mechanics as applied in biological systems. Uses calculus-based mathematical models to treat specific reactions, particularly those treating biological systems as molecular machines.

**PHYS 2800**
Introduction to Materials Physics
3
* Prerequisite(s): PHYS 2220
Covers the atomic structure of materials and their properties, including electronic, thermal, and optical properties. Addresses experimental methods for creating and studying materials, and current topics in materials science including thin films, surface physics, metamaterials, and nanostructured materials.

**PHYS 295R**
Introduction to Independent Research
1 to 3
* Prerequisite(s): PHYS 2210, Departmental Approval
Working under faculty supervision, allows research on a project determined jointly with a faculty member and approved by the department chair. Emphasizes experimental technique, data collection, modeling, and analysis techniques. May be repeated for no more than six hours of elective credit.

**PHYS 3010**
Physics Experiments for Secondary Education
1
* Prerequisite(s): PHYS 2210, (MATH 1050 or MATH 1055), MATH 1210, PHYS 2220, MATH 1060, and University Advanced Standing
For secondary education students. Emphasizes physics or chemistry. Addresses pedagogical methods for student physics laboratory exercises and demonstrations. Studies currently available commercial laboratory equipment for teaching physics in a lab setting. Includes ideas and methods for building inexpensive demonstrations and lab exercises. Provides training in safe and effective use of lab equipment.

**PHYS 3040**
Modern Physics for Secondary Education
3
* Prerequisite(s): PHYS 2220, MATH 1220, and University Advanced Standing
Addresses topics of special relativity, development of quantum mechanics, physics of the atom, elementary solid state physics, and elementary particle physics.

**PHYS 3100**
Modern Physics I
3
* Prerequisite(s): PHYS 2220 and University Advanced Standing
* Corequisite(s): PHYS 3115
Addresses topics of error analysis and statistics, wave mechanics, special relativity, development of quantum mechanics, and atomic physics.

**PHYS 3115**
Introduction to Experimental Physics I WE
2
* Prerequisite(s): PHYS 2220 and University Advanced Standing
* Corequisite(s): PHYS 3110
Introduces selected experiments of classical and modern physics in a laboratory setting. Addresses topics of measurement, error analysis, data analysis, and report writing.

**PHYS 3120**
Modern Physics II
3
* Prerequisite(s): PHYS 3110 and University Advanced Standing
* Corequisite(s): PHYS 3125
Covers topics in special and general relativity, and addresses applications of modern quantum mechanics including molecular physics, solid state physics, statistical mechanics, nuclear physics, particle physics, and cosmology.

**PHYS 3125**
Introduction to Experimental Physics II WE
2
* Prerequisite(s): PHYS 3110, PHYS 3115, and University Advanced Standing
Introduces selected experiments of classical and modern physics in a laboratory setting. Addresses topics of measurement, data analysis, report writing.

**PHYS 3230**
Principles of Electronics for the Physical Sciences
3
* Prerequisite(s): PHYS 2220, MATH 2210, and University Advanced Standing
Introduces electronic measurement instruments commonly used in experimental physics laboratories. Covers principles of electronic measurements using transducers, solid-state devices, circuit analysis, logic circuits, and computers. Includes lab experience.

**PHYS 3300**
Mathematical Physics
3
* Prerequisite(s): PHYS 2220, and University Advanced Standing
* Prerequisite(s) or Corequisite(s): MATH 2210 or instructor consent. MATH 2280 is strongly advised as a pre- or corequisite.
Covers the applications of mathematical tools to experimental and theoretical research in the physical sciences. Introduces problems and systems common to physical science that can be modeled by the application of vector and tensor algebra, curvilinear coordinates, linear algebra, complex variables, Fourier series and transforms, differential and integral equations.

**PHYS 3310**
Advanced Mathematical Physics
3
* Prerequisite(s): PHYS 3300 and University Advanced Standing
Explores mathematics as applied to physics. Covers many families of orthogonal polynomials and the special functions of physics, such as the Gamma, Beta, and Error functions. Presents topics in contour integration and applications of conformal mapping. Investigates probability, random processes, statistical analyses, and probability distribution functions.

**PHYS 3330**
Computational Physics
3
* Prerequisite(s): PHYS 3300 and University Advanced Standing
Covers computational algorithms with specific applications to the description of physical systems. Covers iterative approximation methods, computations using matrices and vectors, numerical integration, solutions of differential equations. Uses a computer programming approach to problem solving.
Course Descriptions

PHYS 3350
Applications of LabVIEW in Physics
3
* Prerequisite(s): PHYS 3230 and University Advanced Standing

Develops programming skills in LabVIEW. Utilizes LabVIEW as the primary interface for analog and digital I/O for applications in physics experiments. Includes a student-directed group project that demonstrates effective use of LabVIEW in hardware interfacing in a physics experiment.

PHYS 3400
Classical Mechanics
3
* Prerequisite(s): PHYS 2220 and University Advanced Standing
* Prerequisite(s) or Corequisite(s): PHYS 3300 recommended

Treats classical mechanics of particles and systems using advanced mathematical techniques. Covers conservation principles, Lagrangian dynamics, harmonic oscillators, motion of rigid bodies and non-inertial reference frames.

PHYS 3500
Thermodynamics
3
* Prerequisite(s): PHYS 2220, MATH 2210, and University Advanced Standing

Addresses topics of heat, temperature, ideal gases, laws of thermodynamics, entropy, reversibility, thermal properties of solids, phase transitions, thermodynamics of magnetism, and negative temperature.

PHYS 3600
Optics
3
* Prerequisite(s): PHYS 3300, PHYS 3110, and University Advanced Standing

Covers the phenomena of reflection, refraction, diffraction, interference, optical behavior in materials and lasers. Presents a mathematically rigorous description of optical phenomena. May include equipment-based class projects.

PHYS 3700
Particle Physics
3
* Prerequisite(s): PHYS 3110 and University Advanced Standing

Introduces the Standard Model of particle physics, which enumerates the elementary particles that make up the universe and describes their interactions. Addresses particle accelerators and detectors. Examines unresolved questions in particle physics and possible extensions to the Standard Model.

PHYS 3800 (Cross-listed with: CHEM 3800, ENVT 3800)
Energy Use on Earth
3
* Prerequisite(s): (PHYS 1010 or PHSC 1000 or GEO 1010 or GEO 2040 or METO 1010) and (MATH 1050 or MATH 1055) and CHEM 1010 and University Advanced Standing

Covers the science of energy production and consumption. Quantitatively analyzes various methods of energy production, distribution, and end use in all sectors of our society, including transportation, residential living, and industry. Examines the impacts of our energy consumption on the environment and prospects for alternative energy sources. Is intended for science majors interested in energy use in society or in an energy related career, and for students in other majors who feel that a technical understanding of energy use will help them to understand and mitigate its impact in our society.

PHYS 4150
Medical Physics
3
* Prerequisite(s): PHYS 3110, PHYS 3115 and University Advanced Standing

Explores the theory and applications of physics to medicine. Covers signal analysis, ultrasound, X-rays, optical, nuclear, and X-ray imaging techniques, nuclear medicine, magnetic resonance imaging, and nanomedicine.

PHYS 4210
Advanced Experimental Techniques
3
* Prerequisite(s): (PHYS 3125, PHYS 3230, or instructor approval) and University Advanced Standing

Introduces students to the process of developing, designing, proposing, building, executing, analyzing, revising, and presenting a scientific experiment. Teaches a variety of advanced experimental technical skills and helps students learn to embark independently on scientific research.

PHYS 4250
Nuclear Physics
3
* Prerequisite(s): PHYS 3110

Covers radiation, radioactive decay, nuclear structure, interactions of radiation with matter, radiation detection, nuclear reactions, fission, fusion, and applications of nuclear physics.

PHYS 425R
Physics for Teachers
1 to 5
* Prerequisite(s): Department Approval and University Advanced Standing

For licensed teachers or teachers seeking to recertify, an update course in physics and/or basic physics core courses for teachers needing physics or physical science endorsements from the Utah State Office of Education. Teaches principles of physics and pedagogy of teaching physics for teachers in public or private schools. Emphasis will be placed on correlation with the Utah Core Curriculum, the National Science Education Standards, and the Benchmarks of Project 2061. Topics will vary.

PHYS 4350
Research Methods in Physics
3
* Prerequisite(s): Instructor and Department approval and University Advanced Standing

Presents directed topics in research methods. Emphasizes practical methodologies in measurement, instrumentation, error analysis, statistical analysis and computational modeling. Requires a class project that may require MATLAB, LABView or other programming languages. Includes producing oral presentations, posters and journal articles using contemporary software and LaTeX.

PHYS 4410
Electrostatics and Magnetism
3
* Prerequisite(s): PHYS 3110, PHYS 3115, PHYS 3300, and University Advanced Standing

Explores the theory of electrostatic phenomena in a mathematically rigorous manner. Covers Gauss’ Law, the Laplace and Poisson equations, boundary-value problems, and dielectrics.

PHYS 4420
Electrodynamics
3
* Prerequisite(s): PHYS 4410 and University Advanced Standing

Explores the theory of electromagnetic phenomena in a mathematically rigorous manner. Covers Ohm’s and Kirchhoff’s Laws, magnetic induction, the Biot- Savart Law, Ampere’s Law, Ferromagnetism, Plasmas, Maxwell’s Equations, and Special Relativity.

PHYS 4510
Quantum Mechanics I
3
* Prerequisite(s): PHYS 3110, PHYS 3115, PHYS 3300, and University Advanced Standing

Covers postulates of quantum mechanics, state functions of quantum systems, Hermitian Operators, the Schrodinger Equation, eigenfunctions of harmonic oscillators, and particles in potential wells.
PHYS 4520
Quantum Mechanics II
3
* Prerequisite(s): PHYS 4510 and University Advanced Standing

Covers general principles and applications of quantum mechanics. Addresses topics of three-dimensional problems, angular momentum operators, spin wavefunctions, perturbation theory, applications to atomic, molecular, solid-state, and nuclear physics.

PHYS 4700
Acoustics
3
* Prerequisite(s): PHYS 3110, PHYS 3115, PHYS 3300, and University Advanced Standing

Covers phenomena of sound, resonance, acoustics, and human hearing. Treats associated topics of waves, frequency, vibration and interference using appropriate mathematical tools.

PHYS 4800
Solid State Physics
3
* Prerequisite(s): PHYS 3120, 3125, PHYS 4510, and University Advanced Standing

Explores topics relevant to the structure, behavior, and properties of crystalline materials. Includes a study of lattice vibrations, free electrons, semiconductors, superconductivity, dielectric and ferroelectric materials and magnetism.

PHYS 481R
Physics Internship
1 to 4
* Prerequisite(s): PHYS 2220, Departmental Approval, and University Advanced Standing

Provides supervised, practical, and research experience for students preparing for careers in physics. May be repeated for a maximum of 6 credit hours. May be graded credit/no credit.

PHYS 489R
Undergraduate Research in Physics
1 to 3
* Prerequisite(s): PHYS 2220, Departmental Approval, and University Advanced Standing

Allows research on a project determined jointly with a faculty member and approved by the department chair. Emphasizes experimental technique, data collection, modeling, and analysis techniques. May be used as part of a senior thesis. May be repeated for a maximum of 9 credits toward graduation.

PHYS 490R
Seminar
.5
* Prerequisite(s): University Advanced Standing

Exposes students to current research topics in physics and related fields. Provides an opportunity for students to attend bi-weekly lectures presented by department faculty and invited speakers. Lectures are usually a summary of the speaker's recent research presented at a level appropriate for junior and senior physics majors.

PHYS 492R
Topics in Physics
3
* Prerequisite(s): Departmental approval and University Advanced Standing

Studies a chosen topic in physics. Topics vary depending upon student demand. Possible topic may be the mathematics for quantum mechanics. May be taken for a maximum of 6 credits toward graduation, but is limited to 3 credits for the BS in Physics.

PHYS 495R
Independent Readings
1 to 3
* Prerequisite(s): PHYS 2220, Departmental Approval, and University Advanced Standing

Working under faculty supervision, allows research on a project determined jointly with a faculty member and approved by the department chair. Emphasizes experimental technique, data collection, modeling, and analysis techniques. May be used as part of a senior thesis. May be repeated for a maximum of 9 credits toward graduation.

PHYS 499A
Senior Project
2
* Prerequisite(s): Instructor approval, Departmental approval, and University Advanced Standing

Provides an opportunity for senior physics majors to participate in a current research project supervised by a department faculty member. Includes independent study and/or laboratory work as necessary. Culminates in the preparation of a written paper and oral presentation describing the results of the research project as required for PHYS 499B. May be taken concurrently with PHYS 499B.

PHYS 499B
Senior Thesis
1
* Prerequisite(s): Instructor approval, Departmental approval, and University Advanced Standing

Continues PHYS 499A. Provides an opportunity for senior physics majors to present the results of a current research project supervised by a department faculty member. Includes independent study as necessary. Culminates in the preparation of a written paper and oral presentation describing the results of the research project.

Peace and Justice Studies (PJST)

PJST 3000
Introduction to Peace and Justice Studies
WE
3
* Prerequisite(s): PHIL 2050 and University Advanced Standing

Introduces the student to the important literature, questions, and research programs of peace and justice studies. Explores personal, domestic, national, and international issues. Considers alternative conceptions of violence, war, terrorism, justice/injustice, and peace. Enables the student to become aware of various intellectual and professional disciplines that bear relationships to peace and justice, e.g., history, political theory, international relations, political economy, international law, environmental law, military science, mediation and negotiation.

PJST 3020
The Ethics of War and Peace
3
* Prerequisite(s): PHIL 2050 and University Advanced Standing

Introduces literature concerning the ethics of conflict, war, terrorism, and peace. Considers alternative conceptions of these phenomena, as will be alternative approaches and ethical theories in respect to how conflict of various kinds might most effectively and morally be preempted or diminished. Addresses various defense theories and religious traditions' teachings about conflict, violence, and peace.

PJST 3030
The Scientific Study of War and Peace
3
* Prerequisite(s): PJST 3000 and University Advanced Standing

Takes a multidisciplinary approach to the study of conditions under which the use of violence, terrorism, and war occur. Studies the use of non-violent approaches to conflict and their effectiveness. Examines the ways in which strategies for violent and non-violent approaches to conflict are developed and evaluated.

PJST 3040
Peace in Historical Context
3
* Prerequisite(s): University Advanced Standing

Explores peace from an historical perspective. Considers the history of peace movements and humanitarianism, warfare, slavery and abolition, colonization, and indigenous perspectives on peace. Introduces students to the field of peace history and the ways historians have defined and understood peace. Enables the student to historicize peace in relationship to violence.
PJST 3100  
**Introduction to Human Security**  
3  
* Prerequisite(s): ENGL 2010 and (PHIL 2050 or PHIL 205G) and University Advanced Standing

Introduces the student, and brings him or her, to some depth in the field of human security. Engages the student in a wide range of interdisciplinary literature because this field of inquiry, discourse, and conception is contested, theoretically rich, and empirically rich. Analyzes matters that threaten human security, for example: hunger and malnutrition; disease; cultural, structural, and direct violence; ecological and environmental degradation; political and economic instability and hegemony. Analyzes the organizations, institutions, movements, and strategies assembled successfully against these threats.

PJST 3200  
**Global Poverty Facts Causes and Solutions**  
3  
* Prerequisite(s): (ENGL 2010 or instructor approval) and University Advanced Standing  
* Prerequisite(s) or Corequisite(s): PHIL 2050 or PHIL 205G or instructor approval

Analyzes global poverty as a serious and pressing worldwide problem that kills over 33,000 people each day. Interrogates questions of why poverty exists, as well as what is or can be done to diminish or eliminate it. Presents sophisticated and empirically-based information regarding global malnutrition, conflict, migration, lack of employment and healthcare, etc. Uses the most recent research and research methodologies to investigate both the causes of poverty and the most promising solutions. Examines literature about various moral perspectives and how they speak to the moral duty (or its absence) to address poverty.

PJST 3300  
**Community Development**  
3  
* Prerequisite(s): PJST 3000 and University Advanced Standing

Surveys the nature of community and approaches to the building and strengthening of community. Analyzes needs in various communities and methods of implementing solutions to meet those needs. Explores policies and strategies that produce a high quality of life and maximum opportunity for all residents of local communities. Examines community development through case studies and direct student engagement.

PJST 3400  
**Conflict Transformation Resolution and Sustainable Peace**  
3  
* Prerequisite(s): PJST 3000 and University Advanced Standing

Uses empirical data to interrogate and explicate organized death in the form of war, revolution, insurgency, or terrorism as a perennial, and one of the most complicated, problems. Uses empirical data and theory to investigate the means of conflict transformation that have been most successful. Presents a basic understanding of how conflict is transformed from (1) an active status to (2) resolution to (3) peaceful stalemate to (4) sustained peace. Explicates the process of moving from active violent conflict to sustainable peace. Explores the roles of peoples, state organizations, institutions, civil society, culture, religion, states, and multilateral organizations.

PJST 4200  
**Advanced Poverty Studies: Global Problems and Policies**  
3  
* Prerequisite(s): (PHIL 2050 or PHIL 205G) and University Advanced Standing

Examines the nature of poverty in diverse societies, techniques for its measurement and inaccurate measurement, and the causes and reasons for poverty and its intractability. Examines the ways in which local, national, and global factors are part of the nature of poverty. Surveys policies and institutions designed to confront the problem. Interrogates and explicates the ethical issues surrounding poverty and its alleviation.

PJST 4300  
**Race Gender and Class in Peace and Justice**  
3  
* Prerequisite(s): PJST 3000 and University Advanced Standing

Analyzes the bases of discrimination and domination in societies. Addresses the multidimensional forms of social inequality by examining concrete examples of each dimension such as the wealth gap, gendered work, and poverty. Examines the nature of social class, race, and gender as they relate to issues of war, peace, injustice, and justice. Surveys the contributions that the perspectives of the dominated and victims of discrimination offer to the resolution of inequalities and the establishment of equity.

PJST 475R  
**Issues in Peace and Justice Studies**  
3  
* Prerequisite(s): PHIL 2050, Junior Standing, and University Advanced Standing

Presents a selected topic from current issues in the area of Peace and Justice Studies which will vary each semester. May approach topics from a cross-disciplinary perspective. Requires a project demonstrating competence in the specific topic or issue. May be repeated for a maximum of 6 credits toward graduation.

PJST 481R  
**Internship**  
1 to 8  
* Prerequisite(s): Program Director Approval and University Advanced Standing

Provides opportunities for internship experience in the following types of agencies: political, governmental, corporate, private, news agencies or any non governmental organization (NGO) apart from regular employment. Encourages practical, research, and/or development experience in selected areas of service related to the student's academic or professional goals relevant to peace and justice studies concerns. Requires supervision by an agency representative and approval of the Peace and Justice Studies internship adviser and the program director. Requires that written contracts be completed and signed by all responsible parties. Credit is determined by the number of hours a student works during the semester. May be repeated for a maximum of 8 credits toward graduation. May be graded credit/no credit.

PJST 4900  
**Peace and Justice Studies Capstone**  
3  
* Prerequisite(s): ENGL 2010, Senior Standing, and University Advanced Standing

To be taken during the student's last semester. Includes writing a senior thesis which points to career or graduate school goals. Requires a significant research project, which may coincide with field work and/or internship experience. Covers advanced Peace and Justice Studies research and writing instruction. Involves the creation of a portfolio helpful in applying to graduate schools or seeking employment.

PJST 491R  
**Independent Study**  
1 to 8  
* Prerequisite(s): Program Director Approval and University Advanced Standing

For self-directed students who wish to engage in a well-defined study or project in an area of special interest within the domain of Peace and Justice Studies. Requires individual initiative and responsibility with limited formal instruction and faculty supervision. Projects may include writing a publishable paper, giving an oral presentation, passing a competency exam, or completing any other options approved by the instructor and the program director. May be repeated for up to 9 credits toward graduation.

Political Science (POLS)

POLS 1000  
**American Heritage**  
3  
* Prerequisite: ENGL 2010

Studies the founding of American constitutional government. Considers the cultural, economic, legal, political, and social ramifications of the Constitution of the United States.
POLS 1010
Introduction to Political Science 3
Explores the nature of politics and power. Compares constitutional systems of government with closed totalitarian systems such as the Communist Bloc nations. Examines public opinion, political communications, interest groups, party politics, ideologies, governmental institutions, bureaucracies, and government legal systems. Studies the role of violence and revolution. Emphasizes the influence of these political elements on the average citizens.

POLS 1020
Political Ideologies 3
Surveys the major historical and current political ideologies including liberalism, Marxism, fascism and Islamism.

POLS 1100
American National Government 3
Studies history and structure of American National Government, rights and responsibilities of citizens, political institutions, political processes, and governmental policies.

POLS 1440
Introduction to Middle East Politics 3
Studies social, historical, political and religious influences affecting the Middle East. Explores forces that motivate policy and decision-making. Examines current issues such as the Arab-Israeli conflict, political Islam, petroleum power and U.S. foreign policy. Presents profiles of selected modern Middle East states and the balance of power in the region.

POLS 2100
Introduction to International Relations 3
Discusses logic of power in international relations. Studies idealistic and realistic theories of international relations. Examines reasons why nations go to war. Compares geopolitical thrust and response.

POLS 2200
Introduction to Comparative Politics 3
Studies comparative politics and looks at attitudes and causes of political problems. Examines methods and means employed by selected countries to solve political problems, and studies successes and failures of different approaches. Examines the means which different nations employ to deal with political problems. Explores the politics, institutions, and governments of seven selected nations.

POLS 2220
Introduction to Chinese Commerce 3
* Prerequisite(s): ENGL 1010 or ENGH 1005
Surveys the current situation of the Chinese economy, starting with Chinese economic geography and the historical background of economic development in the post-1978 era. Concentrates on economic transition, development strategies, and basic situations of various sectors in the post-reform era, discussed in a comparative framework with the economic transition and development experience of other countries. Discusses some current eye-catching issues associated with economic development and having international impacts, such as international trade and investment transactions, energy competition, and environmental degradation of China.

POLS 230G
Introduction to Political Theory 3
Surveys major Western political theories, from Athenian democracy to the 21st century welfare state. Analyzes such ideologies as republicanism, liberalism, socialism, and fascism, and considers how these ideas have shaped the ways in which people think and nations act. Explores how global cultures have used and abused these ideas, and how students' own political beliefs fit into the history of political ideologies.

POLS 2400
Peace and Justice Studies Basics 3
Examines the complexities and consequences of efforts to deal with conflicts between individuals, groups, and nations through a variety of techniques, including violence, war, and peace building. Introduces techniques used in the non-violent resolution of conflicts. Promotes techniques to avoid resorting to violence as a means of conflict resolution.

POLS 3000
Political Analysis 3
* Prerequisite(s): University Advanced Standing
Covers the analytical and quantitative methodologies used in political science and public policy research. Includes statistical analysis, database research, and writing exercises.

POLS 3010
Political Analysis II 3
* Prerequisite(s): POLS 3000 and University Advanced Standing
Covers advanced political data analysis techniques, including: advanced multiple regression analysis and diagnostics, measurement reliability and validity, the use of statistical-analysis software and presentation of analysis results.

POLS 3020
Public Program Analysis 3
* Prerequisite(s): University Advanced Standing
Serves as an introduction to evaluation methodology and evaluation tools commonly used to assess publicly funded programs. Provides training and practice in the field of public program analysis. Familiarizes students with different types of program evaluation, including needs assessment, formative research, process evaluation, monitoring of outputs and outcomes, impact assessment, and cost analysis.

POLS 3030
State and Local Government 3
* Prerequisite(s): University Advanced Standing
Examines the operation and structure of American State and Local Government with special attention to the Utah experience. Explores the local political process, administrative practices, and intergovernmental relations.

POLS 3040
Survey Research and Design Methods 3
* Prerequisite(s): University Advanced Standing
Focuses on the role of polling in the political process. Introduces the theory and methods used in survey research. Includes how survey-research firms produce polls, analysis of polling for campaigns and public opinion, the psychology of survey response, survey construction, and sampling. Covers other data-collection techniques commonly used in politics and political science such as focus groups and experiments.

POLS 3050
Experimental Methods in Political Science 3
* Prerequisite(s): POLS 3000 and University Advanced Standing
Provides an overview of experimental methodology currently being utilized in the field of Political Science. Dissects the multiple stages of experimental research design and data analysis. Teaches critical thinking in terms of the benefits and dangers of causal inference using experimental research.

POLS 3060
Qualitative Analysis 3
* Prerequisite(s): POLS 3000 and University Advanced Standing
Offers a hands-on opportunity for students to experience the practice of qualitative research. Provides training and practice in a broad set of qualitative methods as applied to public sector organizations, such as state and federal agencies, municipalities, and nonprofit organizations.
POLS 3070
Policy Analysis
3
* Prerequisite(s): POLS 3310 and University Advanced Standing

Provides an introduction to the objectives, functions, and techniques of policy analysis in democratic societies, with an emphasis on the United States. Emphasizes policy analysis in government organizations. Considers policy analysis in nongovernmental settings, such as nonprofit organizations and think tanks.

POLS 3100
Survey of International Terrorism
3
* Prerequisite(s): University Advanced Standing

A survey course of political violence and terrorism in the modern world. Studies terrorism and other forms of political violence and how they relate to fundamentalism, such as the Shiite Islamic, and Christian identity movements in the United States and Western Europe. Examines the concept of religious and political terrorism, as well as the ideologies, tactics, and organizations common to most terrorist groups.

POLS 3120
Political Parties
3
* Prerequisite(s): (POLS 1100 or instructor approval) and University Advanced Standing

Examines the American political party system with special attention given to the history, structure, functions, and role of American political parties.

POLS 3150
US Presidency
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing

Studies the executive branch of American national government. Examines the basic functions, tenets, and institutions of the federal executive branch. Special attention given to the powers, roles, and structure of the presidency. Analyzes the various complexities of executive politics and policies.

POLS 3160
Campaigns and Elections
3
* Prerequisite(s): University Advanced Standing

Examines the role of elections in the democratic process. Analyzes the effects of campaigns on voter behavior at the national, state, and local levels.

POLS 3170
Political Psychology WE
3
* Prerequisite(s): POLS 1000 or POLS 1100 or HIST 1700 and University Advanced Standing

Examines the integration of political science and psychology to better understand the political world. Analyzes the theories and methods that have been developed to explain political behavior. Studies how dynamic conscious and unconscious processes collectively shape political outcomes.

POLS 3180
Public Opinion and Political Behavior
3
* Prerequisite(s): University Advanced Standing

Explores the formation and role of public opinion in politics and its impact on political behavior. Topics covered are: how, and to what extent, individuals form their attitudes about politics; how researchers go about attempting to measure public opinion; the distribution and determinants of public opinion regarding a broad range of political issues; and how political attitudes affect political participation.

POLS 3200
US Congress
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing

Examines the legislative branch of American national government. Explores concepts of legislative theory, examining basic structure, functions, powers and roles of Congress. Gives special attention to the legislative process, constitutional structure, and modern development of federal legislature.

POLS 3210
World Diplomacy
3
* Prerequisite(s): POLS 2100 and University Advanced Standing

Examines diplomacy as the conduct of relations between sovereign states through the medium of officials based at home or abroad. Explores processes and procedures of the diplomatic art that focuses chiefly on the recent past but is rooted in history. Emphasizes negotiation (the most important function of diplomats), as well as unconventional diplomatic methods.

POLS 3220
Interest Groups
3
* Prerequisite(s): University Advanced Standing

Provides an introduction to interest groups and their role in American politics. Examines the ways that citizens, firms, and institutions struggle to gain representation through organized interest groups in the United States. Includes the reasons why interest groups are formed, the reasons why people join organized interests groups, and the importance of leaders and leadership in attracting members and maintaining the stature of the group.

POLS 3250
Introduction to Law and Politics
3
* Prerequisite(s): POLS 1100 and University Advanced Standing

Examines the relationship between law and politics. Addresses the impact politics have on the judiciary and the strengths and weaknesses of law as a means of social order. Focuses on general issues of legal and political theory and the social and political function of law.

POLS 3260
American Federalism
3
* Prerequisite(s): University Advanced Standing

Examines the origin and development of the American federal system of government. Explores the historical phases and changing conceptions of federalism in the United States. Applies theoretical debates to the study of public policy, including education policy, marijuana regulation, civil rights and civil liberties, and economic development. Analyzes the ways in which decentralized government promote or inhibit other public goods like equality, diversity, and unity.

POLS 3300
Introduction to Public Administration
3
* Prerequisite(s): University Advanced Standing

Introduces basic concepts and principles in the implementation of public policy, as opposed to the formation of public policy. Includes concepts such as chain of command, hierarchy, and span of control.

POLS 3310
Introduction to Public Policy WE
3
* Prerequisite(s): ENGL 1010 or ENGH 1005 and University Advanced Standing

Provides an introduction to the process of public policy-making in the United States and to the substance of policy in areas like health policy, environmental policy, and education policy. Introduces students to the fundamental skills of policy analysis and to some of the difficult choices involved in identifying, addressing, and resolving public policy problems.

POLS 3320
Nonprofits and The Public Sector
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing

Examines the historical background, development, role, and purposes of nonprofit organizations. Expands awareness of the scope and breadth of the nonprofit sector in the United States, and examines the inner workings of nonprofit organizations as the foundation for further study.
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<th>Course Code</th>
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| POLS 3330   | Environmental Politics and Policy                | 3                                                  | * Prerequisite(s): University Advanced Standing  
Examines current environmental problems' political character, attempts to comprehend their causes, and discusses how governments, organizations, movements, communities, and individuals are responding to environmental degradation and the rapidly escalating climate crisis. Identifies and analyzes the guiding principles that inform policy choices and the different tools available to policymakers to address these challenges, with a focused examination of state government, federalism, and the roles of the three branches of the national government. |
| POLS 3340   | Public Innovation                                | 3                                                  | * Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing  
Presents an overview of the background, methods, and, techniques associated with public sector innovation. Equips students who wish to be innovators with the knowledge and skills necessary to imagine and implement innovative solutions to public problems. |
| POLS 3350   | Health Politics and Policy                       | 3                                                  | * Prerequisite(s): University Advanced Standing  
Explores the politics of public health and health care policy in the United States, with a focus on current issues and controversies. Compares health policy in the United States to other countries on a variety of issues, including access and cost. Examines various legal issues surrounding health policy. |
| POLS 3360   | The Politics of Economic Inequality              | 3                                                  | * Prerequisite(s): University Advanced Standing  
Explores the relationship between economic inequality and the American political system. Examines how the public has responded to the growth of income inequality. Explores public policies that are closely connected to growing inequality and analyze previous policy debates concerning economic inequality in the contemporary United States. |
| POLS 3370   | Leading Cities                                   | 3                                                  | * Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing  
Provides an introduction to and overview of what leadership is within the public sector. Examines the skills required to successfully lead and manage cities for both elected and appointed leaders (mayors, city managers, city council members, etc.). Considers related topics, including the diverse functions of a city and common challenges faced by city leaders. |
| POLS 3380   | Local Economic Development                        | 3                                                  | * Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing  
Introduces the context, theory, process, and practice of local economic development policy. Examines facets of local economic development such as tax increment finance, job creation, economic analysis, business expansion and retention, and economic gardening. |
| POLS 3390   | Urban Planning                                    | 3                                                  | * Prerequisite(s): University Advanced Standing  
Provides a broad introduction to the field of urban planning as a profession, a process of decision-making, and a government function. Explores the limitations and benefits of planning, primarily in areas such as climate adaptation, economic development, and natural disasters. |
| POLS 3400   | American Foreign Policy                           | 3                                                  | * Prerequisite(s): POLS 1100, POLS 2100, and University Advanced Standing  
Examines the development and theories of American foreign policy with special emphasis on the twentieth and twenty-first centuries. Surveys the process by which American foreign policy is formulated and examines major events and trends in policy since World War II. |
| POLS 3410   | Globalization and Sustainable Development         | 3                                                  | * Prerequisite(s): University Advanced Standing  
Examines major measurements of sustainability indicators, approaches and institutions in disaster management, and the roles of environmental assessment, management, and policy. Considers the impacts of infrastructure development, economics, and market failures, in addition to linkages to poverty reduction. Examines the importance of governance, democratic institutions and civil society for sustainable development (SD). Considers the role of international financial and political institutions; international environmental agreements for SD. |
| POLS 3420   | Islam in World Affairs                            | 3                                                  | * Prerequisite(s): University Advanced Standing  
Examines the history, traditions, and pillars of Islam as the latest among monotheistic religions in the world. Studies the role of women in Islam and its roots of diversity, including the historic split to Shia and Sunnis. Examines the influence of Islam in the politics and economies of Muslim nations around the world and examines the challenges presented by radical Islam for the modern world. |
| POLS 3480   | Race and Politics                                 | 3                                                  | * Prerequisite(s): University Advanced Standing  
Examines the role of race and ethnicity in global, national, and local politics. Focuses on the ways race has been socially constructed to promote the power of some and the domination of others. |
| POLS 3490   | Race and Politics in the U.S.                     | 3                                                  | * Prerequisite(s): POLS 1000 or POLS 1100 or HIST 1700 and University Advanced Standing  
Examines the major theories that have attempted to explain the roles of race and ethnicity in American politics. Studies how race, ethnicity, and gender are used as resources for organization in the political development of the United States. Analyzes the political attitudes and behaviors of racial and ethnic populations in order to measure their contemporary political influences. |
| POLS 3500   | International Relations of the Middle East       | 3                                                  | * Prerequisite(s): (POLS 2100 or instructor approval) and University Advanced Standing  
Covers the impact of the West on the Middle East, the Arab-Israeli wars, the rise of Islamic fundamentalist terrorist groups and regimes, the Iran-Iraq war (1980-1988), the Iraq-Kuwait-US war (1990-1991), the impact of 9/11, as well as the foreign policies of several major states in the Middle East. |
| POLS 3510   | Post Soviet Politics                             | 3                                                  | * Prerequisite(s): University Advanced Standing  
Examines relations of the Russian Federation to its neighbors and other strategic international actors. Focuses on the dynamics of key bilateral relationships by highlighting such key areas as oil and energy, defense policy, economic policy priorities, and the role of international institutions. |
### Course Descriptions

**POLS 352G**  
**Chinese Politics**  
3  
* Prerequisite(s): University Advanced Standing  
Reviews the historical background in which Chinese Communist Party established its governance. Examines the politics of the People’s Republic of China since 1949. Analyzes important aspects of Chinese political and economic institutions and governance, such as party-state, political economy, judicial system, military, dissent politics, and foreign policy. Explains Chinese geographic and demographic features and how those features affect Chinese politics and economy. Discusses significant effects and implications which China’s political modernization and economic growth might have across its border.

**POLS 353G**  
**Asian Politics**  
3  
* Prerequisite(s): University Advanced Standing  
Explains the demographic features in India, China, and Japan and how those features affect politics in the three countries. Reviews the historical background in which India, China, and Japan established their national identities. Surveys and compares the state-building efforts and development strategies in India, China, and Japan. Examines and compares domestic political system and government structure in these three countries. Discusses significant effects and implications which Asian politics might have across their borders.

**POLS 356G**  
**Comparative Politics of Central Asia**  
3  
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing  
Introduces students to the region of Central Asia with its complex nature and origins of instability. Places regional conflicts to the context of global political developments. Analyzes the historical background of its problems and challenges in combination with studies of its dynamically developing politics.

**POLS 3600**  
**International Relations of East Asia WE**  
3  
* Prerequisite(s): University Advanced Standing  
Examines the historical, structural, geopolitical, institutional, and normative dynamics that have shaped the international relations and orders in East Asia. Surveys the geopolitical dynamics for war and peace, and the impact of East Asian culture, civilization, and identity. Studies industrial development and the development of trans-border production networks. Focuses on the dynamics, characteristics and problems of economic regionalism and cooperative security, with special attention to domestic structures and their influence on international relations in the region.

**POLS 3610**  
**International Organization WE**  
3  
* Prerequisite(s): POLS 2100 and University Advanced Standing  
Focuses on the role of international institutions in the modern state system. Analyzes procedures of international cooperation in key issue areas including: the peaceful settlement of disputes and international security, human rights, economic development, and the environment.

**POLS 3620**  
**Latin American Politics**  
3  
* Prerequisite(s): University Advanced Standing  
Studies the development of modern political institutions as an outcome of colonial practice in Latin America, such as slavery and economic dependency. Examines national politics in Latin America, focusing on issues such as political power, democratization, indigenous rights, border politics, neo-colonialism, and Latin American socialism. Explores the consequences for Latin America of neo-liberalism, Eurocentrism, narco-trafficking, and globalization on the international level.

**POLS 362G**  
**Modern Chinese Political Economy**  
3  
* Prerequisite(s): University Advanced Standing  
Examines the Chinese experience in economic transition and economic development in general and in several domestic sectors, which cross the conventional boundaries between political and economic analysis and through a comparative lens vis-à-vis other transition economies and developing economies. Presents the basic historical and current developments of Chinese economy. Probes the interaction between economic development and political institutions in China, and considers the international effects and implications of Chinese economic development in a critical way.

**POLS 3630**  
**Sustainable Mountain Development**  
3  
* Prerequisite(s): University Advanced Standing  
Considers the issues of sustainable mountain development (SMD) as a part of the globalization process and one of the important priorities of the multilateral agenda of the United Nations. Includes discussion of the problems of mountain ecosystems, such as sources of goods, food, and services for mountain populations. Examines special economic development issues in rural, isolated mountain communities in the contexts of recreation and tourism, biological and cultural diversity, and religious significance.

**POLS 3640**  
**United Nations Sustainable Development Goals**  
3  
* Prerequisite(s): University Advanced Standing  
Examines the United Nations Sustainable Development Goals and the role the UN Economic and Social Council plays in the implementation of Sustainable Development Goals. Considers the role of the sustainable mountain development agenda in the UN 2030 Development Agenda and in promotion of Utah as the model of economic development among mountain nations worldwide. Examines the practical aspects of the UN Sustainable Development Goals advocacy through an engaged learning activity by visiting the UN Economic and Social Council forums.

**POLS 3650**  
**Model United Nations**  
3  
* Prerequisite(s): University Advanced Standing  
Focuses on the issues, goals and procedures of the United Nations. Incorporates research on political, economic, and social issues of assigned countries in preparation for a simulation of the United Nations. Includes debate on important international political issues accompanied by negotiation and drafting of resolutions to address global problems.

**POLS 3680**  
**International Political Economy**  
3  
* Prerequisite(s): POLS 2100 and University Advanced Standing  
Focuses on the connection between politics and economics in international relations, including an overview of some of the major issues in the area of international political economy, the international trade and financial systems, the role of multinational corporations, economic development, and economic globalization.

**POLS 420R**  
**Issues and Topics in Political Science**  
3  
* Prerequisite(s): ENGL 2010 and University Advanced Standing  
Surveys a specific topic in political science. Topic varies each semester. May be repeated for a maximum of 6 credits toward graduation.

**POLS 4500**  
**International Conflict and Security**  
3  
* Prerequisite(s): POLS 2100 and University Advanced Standing  
Focuses on causes and theories of conflict in international relations. Includes traditional and emerging threats to international security, as well as policy responses to them.
POLS 4610
International Law
3
* Prerequisite(s): POLS 2100 and University Advanced Standing
Focuses on theories, sources, and foundations of international law. Includes discussion of rights and duties of states, the relationship between international and domestic law, interstate settlement of disputes, and extraterritorial jurisdiction. Explores international law in the areas of human rights, the environment, and the use of force.

POLS 480R
Internship WE
2 to 9
* Prerequisite(s): University Advanced Standing
Provides opportunities for internship experience in political organizations, government offices, and non-governmental organizations. Gives practical experience in oral and written communication in an applied professional setting. May be repeated for a maximum of 9 credits toward graduation.

POLS 4850
State Legislative Internship Seminar
3
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): ENGL 1010 or ENGH 1005
Prepares students who have been selected to serve as interns to the Utah State Legislature. Focuses on legislative behavior and organization; bill and law making; research and policy; comparative state government and politics and internship requirements.

POLS 4890R
Independent Study
1 to 4
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Provides independent study for students unable to secure a desired class within regular semester curriculum offerings. With the approval of dean and/or department chair, student and instructor design and complete readings and other projects at the upper division level. May be repeated for a maximum of 6 credits toward graduation.

POLS 4900R
Senior Seminar WE
3
* Prerequisite(s): POLS 3000, Senior standing in Political Science, and University Advanced Standing
Includes readings and discussions about fundamental political science problems and issues. Offers directed research project tailored to each student’s special interests.

Portuguese (PORT)

PORT 1010
Beginning Portuguese I
4
* Prerequisite(s): Students need equivalent knowledge of PORT 1020
For those with no prior Portuguese. Emphasizes listening, speaking, and writing skills along with basic grammar, vocabulary and verb conjugations all within the cultural context of modern Brazil and Portugal. Use eclectic methodology requiring conversational exchanges. Lab access fee of $10 applies.

PORT 1020
Beginning Portuguese II
4
* Prerequisite(s): Students need equivalent knowledge of PORT 1010
Continuation of PORT 1010. Includes remaining first-year grammar and language concepts plus introduction to literature and cultural readings. Uses eclectic method of instruction, emphasizing conversational exchanges. Lab access fee of $10 applies.

PORT 1050
Intensive Portuguese for Spanish Speaker
5
* Prerequisite(s): (SPAN 3030 and SPAN 3040) or SPAN 3050, native speaker, or permission of instructor
Intensive overview of basic Portuguese for Spanish speakers. Practices listening, speaking, reading, and writing skills as well as discusses cultural aspects of Portuguese-speaking societies. Uses an eclectic method of instruction, emphasizing conversational exchange.

PORT 115R
Portuguese Conversation I
1
Offers novice Portuguese speakers opportunities to enhance their speaking proficiency in the target language by focusing on oral verbal production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, sharpen listening comprehension, and develop conversational strategies such as circumlocution and managing a conversation with useful expressions for starting a conversation, gaining time to think, helping the other speaker, seeking agreement, etc. Contrasts with all other first year courses which must strive to produce mastery of the whole range of language acquisition components, including writing, grammar, etc. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of speech opportunities and defusing concern for such matters as spelling, etc. Increases mastery of lexical items through increased frequency of oral usage. May be repeated for a maximum of 3 credits toward graduation.

PORT 2010
Intermediate Portuguese I
4
* Prerequisite(s): Students need equivalent knowledge of PORT 1020
Reviews and builds grammar, reading, and conversation skills learned in the first year courses. Introduces readings and discussions on the history, culture, and literature of Brazil, maintaining a focus on oral proficiency. Lab access fee of $10 applies.

PORT 202G
Intermediate Portuguese II
4
* Prerequisite(s): PORT 2010
Continuation of PORT 2010. Includes remaining grammar and language concepts, literature and cultural readings. Emphasizes literary readings, conversational exchanges as well as creative writing. Lab access fee of $10 applies.

PORT 215R
Portuguese Conversation II
1
* Prerequisite(s): Students should have equivalent knowledge of PORT 1020
Offers lower division / novice speakers opportunities to enhance their speaking proficiency in the target language by focusing on oral verbal production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, sharpen listening comprehension, and develop conversational strategies such as circumlocution and managing a conversation with useful expressions for starting a conversation, gaining time to think, helping the other speaker, seeking agreement, etc. Contrasts with all other first year courses which must strive to produce mastery of the whole range of language acquisition components, including writing, grammar, etc. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of speech opportunities and defusing concern for such matters as spelling, etc. Increases mastery of lexical items through increased frequency of oral usage. May be repeated for a maximum of 3 credits toward graduation.

PORT 3050
Advanced Portuguese
3
* Prerequisite(s): It is recommended that students have either taken PORT 202G, at least a 18 months one year residency in a Portuguese-speaking country, or instructor approval
For non-native Portuguese speakers with a basic mastery of Portuguese. Overviews basic Portuguese grammar with special emphasis on major concepts. Overviews Luso-Brazilian literatures and cultures. May be delivered hybrid. Lab access fee of $10 applies.
Course Descriptions

PORT 3116
Navigating Identities of the Portuguese-speaking World
3
* Prerequisite(s): A score of 3 or higher on the Portuguese NEWL test, with test taken in grade 9, 10, 11 and department approval.

This course is part of the State of Utah Portuguese Bridge Program and it will be taught only in high schools and for high school students. Not to be taught on college campus for university students. Explores the themes of travel, navigation, and cross-cultural encounters throughout today’s Portuguese-speaking world, and how they impact our identity and transform us and our understanding of others. Taught in Portuguese.

PORT 3118
Pop Culture
3
* Prerequisite(s): A score of 3 or higher on the Portuguese NEWL test, with test taken in grade 9, 10, or 11 and department approval.

This course is part of the State of Utah Portuguese Bridge Program and it will be taught only in high schools and for high school students. Not to be taught on college campus for university students. Explores the roles that current popular media and entertainment play in the Portuguese-speaking world. Explores the historical and cultural perspectives presented through popular media. Taught in Portuguese.

PORT 3200
Business Portuguese
3
* Prerequisite(s): (PORT 3050 or equivalent knowledge) and University Advanced Standing

For those who plan to pursue a career in international business or related field, learn the business language for Portuguese, or understand Portuguese speaking cultures. Teaches Portuguese business terminology. Presents the role of Portuguese-speaking countries in a global economy. Explores how students can effectively do business with Brazilian and Portuguese companies within the framework of Lusophone cultures. Includes current materials dealing with today’s issues. Taught entirely in the Portuguese language.

PORT 3430
Masterpieces of Brazillian Film
3
* Prerequisite(s): University Advanced Standing

Develops listening comprehension and speaking skills through discussion of Brazilian films. Enhances understanding of Brazilian culture and contemporary society through analysis of cultural and social issues presented in Brazilian cinema. Conducted entirely in Portuguese.

PORT 352G
Brazilian Culture and Civilization
3
* Prerequisite(s): PORT 3050 and University Advanced Standing

Explores a multitude of aspects that construct Brazilian national identity. Completers should acquire an understanding of contemporary issues, and ethnic and economic development of Brazil, as well as historical interdependence with other nations. Presentations and class instructions conducted entirely in Portuguese.

PORT 3610
Brazil through Literature and Film--1500-1900
3
* Prerequisite(s): University Advanced Standing

Examines the literary and filmic construction of Brazil 1500-1900. Requires students to reflect on the philosophical, social, and aesthetics issues that shaped Colonial and Old Republic Brazil. Conducted entirely in Portuguese, presentations and class instruction included.

PORT 3620
Modern Brazil through Literature/Music/Film--1900-1945
3
* Prerequisite(s): University Advanced Standing

Examines the literary, musical and filmic construction of Brazil in the beginning of the 20th century. Reflects on the aesthetics, social, and philosophical issues that shaped Brazil. Conducted entirely in Portuguese.

PORT 3630
Post-Modern Brazil through Literature/Music/Film--1945-today
3
* Prerequisite(s): University Advanced Standing

Examines the literary, musical and filmic construction of Brazil at the end of the 20th century. Reflects on the philosophical, social, and aesthetics issues that shape Brazil. Conducted entirely in Portuguese.

PORT 490R
Special Topics in Brazilian Studies
3
* Prerequisite(s): University Advanced Standing

Engages students in critical analysis of discourse in Brazil. Develops language skills required to such analysis and specific to the topic. Possible topics include Brazilian Film, Brazilian Music, Lusophone Literature, Women’s Texts, Advanced Business Portuguese. Conducted entirely in Portuguese. May be repeated for up to nine credit hours towards graduation.

Paralegal Studies (PRLG)

PRLG 3300
Criminal Law and Procedure
3
* Prerequisite(s): PRLG 1000 and University Advanced Standing

Examines the legal and procedural aspects of crime, including the elements and categories of criminal acts and jurisdictional considerations. Studies the procedure of criminal prosecution according to the Federal Rules of Criminal Procedure, from both a prosecution and defense perspective, including constitutional assurances, investigations, case preparation, motion processes, trials and appeals.

PRLG 4400
Family Law
3
* Prerequisite(s): PRLG 2100; PRLG 2200; University Advanced Standing

Covers family issues and drafting of legal documents relating to domestic litigation. Explores case law related to the marriage contract, divorce, adoption, guardianships, paternity, illegitimacy, and prenuptial agreements. Emphasizes family law document production in domestic cases. Lab access fee of $25 for computers applies.

PRLG 481R
Internship
1 to 8
* Prerequisite(s): Approval Paralegal Director and University Advanced Standing; PRLG 2100, PRLG 2200, PRLG 2300

Provides actual, on-the-job work experience in a non-paying (volunteer) basis in a law office or other approved law-related situation. Emphasizes successful work experience, especially identifying and solving problems. Completers should be qualified to work in the Paralegal profession. May be repeated for a maximum of 8 credits. May be graded credit/no credit.
### Automotive Power Sports (PST)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Lab</th>
<th>Corequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PST 1110</td>
<td>Two Stroke Engine Systems</td>
<td>2</td>
<td>PST 1115</td>
<td>Studies the theory, diagnosis, and repair of two stroke engines. Emphasizes design and capabilities of the two stroke engine. Includes engine rebuilding techniques and principles, basics of engine fasteners, sealants, and tightening methods.</td>
</tr>
<tr>
<td>PST 1115</td>
<td>Two Stroke Engine Systems Lab</td>
<td>1</td>
<td>PST 1110</td>
<td>Enhances the technical theory covered in the PST 1110 course. Provides an engine laboratory experience by following industry task lists for two stroke engine systems. Emphasizes demonstrations, observations, and hands-on participation. Utilizes actual vehicles and vehicle systems of major manufacturers in completing the task lists. Course Lab fee of $12 for materials applies.</td>
</tr>
<tr>
<td>PST 1120</td>
<td>Constant Velocity Transmissions and Drive Systems</td>
<td>2</td>
<td>PST 1125</td>
<td>Studies the theory, operation, diagnosis, and repair of Continuously Variable Transmissions (CVT) in snowmobiles, ATVs, and UTVs. Includes component identification and theory of tuning the CVT for optimal performance. Covers driveshaft and constant velocity boot inspection, diagnosis, and replacement.</td>
</tr>
<tr>
<td>PST 1125</td>
<td>Constant Velocity Transmissions and Drive Systems Lab</td>
<td>1</td>
<td>PST 1120</td>
<td>Enhances the technical theory covered in the PST 1120 course. Provides a transmission laboratory experience by following industry task lists for continuously variable transmission (CVT) systems. Emphasizes demonstrations, observations, and hands-on participation. Utilizes actual vehicles and vehicle systems of major manufacturers in completing the task lists. Course Lab fee of $12 for materials applies.</td>
</tr>
<tr>
<td>PST 1210</td>
<td>Four Stroke Small Engine Systems</td>
<td>2</td>
<td>PST 1215</td>
<td>Studies the theory, diagnosis, and repair of four stroke small engines. Emphasizes design and capabilities of the four stroke small engine. Includes engine rebuilding techniques and principles, basics of engine fasteners, sealants, and tightening methods.</td>
</tr>
<tr>
<td>PST 1215</td>
<td>Four Stroke Small Engine Systems Lab</td>
<td>1</td>
<td>PST 1210</td>
<td>Enhances the technical theory covered in the PST 1210 course. Provides an engine laboratory experience by following industry task lists for four stroke small engine systems. Emphasizes demonstrations, observations, and hands-on participation. Utilizes actual vehicles and vehicle systems of major manufacturers in completing the task lists. Course Lab fee of $12 for materials applies.</td>
</tr>
<tr>
<td>PST 2110</td>
<td>Snowmobile Systems</td>
<td>2</td>
<td>PST 2115</td>
<td>Studies the operation, diagnosis, and repair of snowmobile systems. Emphasizes design, capabilities, and uses of the snowmobile system. Includes instruction on individual systems and how these systems interrelate into the platform as a whole. Stresses safety procedures. Covers advanced repair techniques.</td>
</tr>
<tr>
<td>PST 2115</td>
<td>Snowmobile Systems Lab</td>
<td>1</td>
<td>PST 2110</td>
<td>Enhances the technical theory covered in the PST 2110 course. Provides a laboratory experience for snowmobiles by following industry task lists for snowmobile systems. Emphasizes demonstrations, observations, and hands-on participation. Utilizes actual vehicles and vehicle systems of major manufacturers in completing the task lists. Covers advanced repair techniques. Stresses safety procedures.</td>
</tr>
<tr>
<td>PST 2120</td>
<td>ATV and UTV Systems</td>
<td>2</td>
<td>PST 2125</td>
<td>Studies the history, operation, diagnosis, and repair of ATV and UTV systems. Emphasizes design, capabilities, and uses of the ATVs and UTVs. Includes instruction on individual systems and how these individual systems interact on the machine as a whole. Stresses safety procedures. Covers advanced repair techniques.</td>
</tr>
<tr>
<td>PST 2125</td>
<td>ATV and UTV Systems Lab</td>
<td>1</td>
<td>PST 2120</td>
<td>Enhances the technical theory covered in the PST 2120 course. Provides a laboratory experience for ATV and UTVs by following industry task lists for ATV and UTV systems. Emphasizes demonstrations, observations, and hands-on participation. Utilizes actual vehicles and vehicle systems of major manufacturers in completing the task lists. Covers advanced repair techniques. Stresses safety procedures.</td>
</tr>
<tr>
<td>PST 2130</td>
<td>Small Motorcycles and Scooters</td>
<td>2</td>
<td>PST 2135</td>
<td>Studies the history, operation, diagnosis, and repair of small motorcycles including dirt bikes and dual purpose motorcycles and scooters. Emphasizes design, capabilities, and uses of the motorcycle systems. Examines motorcycle systems and how these systems interact. Stresses safety procedures.</td>
</tr>
<tr>
<td>PST 2150</td>
<td>Small Motorcycles and Scooters Lab</td>
<td>1</td>
<td>PST 2130</td>
<td>Enhances the technical theory covered in the PST 2130 course. Provides a laboratory experience for small motorcycles by following industry task lists for off-road bikes and dual purpose motorcycles and scooters. Emphasizes demonstrations, observations, and hands-on participation. Utilizes actual motorcycles and scooters and systems of major manufacturers in completing the task lists. Stresses safety procedures.</td>
</tr>
<tr>
<td>PST 2155</td>
<td>ATV and UTV Systems Lab</td>
<td>2</td>
<td>PST 2150</td>
<td>Studies the history, operation, diagnosis, and repair of off-road bikes including cruiser style and sport bikes. Emphasizes demonstrations, observations, and hands-on participation. Utilizes actual motorcycles and scooters and systems of major manufacturers in completing the task lists. Stresses safety procedures.</td>
</tr>
<tr>
<td>PST 2160</td>
<td>Street and Sport Motorcycle Systems</td>
<td>2</td>
<td>PST 2235</td>
<td>Studies the history, operation, diagnosis, and repair of larger street motorcycles including cruiser style and sport bikes. Emphasizes design, capabilities, and uses of the complex street motorcycle systems. Includes advanced diagnosis and repair of complex street bike systems. Examines motorcycle systems and how these systems interact. Stresses safety procedures.</td>
</tr>
<tr>
<td>PST 2230</td>
<td>Street and Sport Motorcycle Lab</td>
<td>1</td>
<td>PST 2160</td>
<td>Enhances the technical theory covered in the PST 2230 course. Provides a laboratory experience for larger street motorcycles by following industry task lists for larger street motorcycles including cruiser style and sport bikes. Emphasizes demonstrations, observations, and hands-on participation. Utilizes actual vehicles and vehicle systems of major manufacturers in completing the tasks. Covers advanced repair techniques. Stresses safety procedures.</td>
</tr>
</tbody>
</table>

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* Corequisite(s): PST 1200
* Corequisite(s): PST 1120
PST 2240
Outdoor Power Equipment
2
* Corequisite(s): PST 2245
Studies the operation, diagnosis, and repair of the most popular segments of the outdoor power equipment market. Emphasizes design, capabilities and uses of lawn mowers, chainsaws, trimmers, edgers, tillers, snow blowers, and generators. Includes instruction on basic maintenance and reliability of these units. Teaches rechargeable and electric outdoor power equipment. Stresses instruction of safety procedures.

PST 2245
Outdoor Power Equipment Systems Lab
1
* Corequisite(s): PST 2240
Enhances the technical theory covered in the PST 2240 course. Provides a laboratory experience for outdoor power equipment by following industry task lists for the most popular segments of the outdoor power equipment market. Utilizes actual equipment of major manufacturers in completing the tasks. Includes the study of rechargeable and electric outdoor power equipment. Stresses safety procedures.

PST 2250
Personal Watercraft
2
* Corequisite(s): PST 2255
Studies the history, operation, diagnosis, and repair of personal watercraft systems. Includes the study of their unique drive systems and advanced cooling systems. Covers advanced diagnosis and repair of complex personal watercraft systems. Discusses hull repair and graphics installation. Stresses proper safety procedures.

PST 2255
Personal Watercraft Systems Lab
1
* Corequisite(s): PST 2250
Enhances the technical theory covered in the PST 2250 course. Provides a laboratory experience for personal watercraft by following industry task lists for the most popular segments of the personal watercraft market. Emphasizes demonstrations, observations, and hands-on participation. Utilizes actual equipment of major manufacturers in completing the tasks. Covers advanced repair techniques of complex personal watercraft systems. Stresses safety procedures.

Psychology (PSY)

PSY 1010
General Psychology
3
An introductory course in modern scientific psychology. Covers major domains of scientific psychology including biological foundations, sensations, perception, learning, motivation, human development and abnormal psychology. Examines major psychological and professional applications. Students will be expected to write at least two papers and work collaboratively.

PSY 101H
General Psychology
3
Covers major domains of scientific psychology including biological foundations, sensation and perception, learning, motivation, human development, and abnormal psychology. Examines major psychological and professional applications. Students will be expected to write at least two papers and work collaboratively.

PSY 1100
Human Development Life Span
3
Explores genetic and environmental influences on human development and behavior from conception and birth through old age and death. Examines typical physical, cognitive, and psychosocial changes at each developmental stage throughout the life span. Explores major theoretical perspectives on human development. Canvas Course Mats $35/Lumen applies.

PSY 1250
Psychology Applied to Modern Life
3
* Prerequisite(s): PSY 1010 with grade C- or higher
Examines knowledge about key concepts and findings from the science of psychology. Applies effective strategies, grounded in psychology, to their own lives in areas that will help them to be healthier and happier. Key topic areas include: stress, social influences and interpersonal communication, relationships and life transitions, and mental and physical health.

PSY 2020
Psychology as a Science and Profession
3
* Prerequisite(s) or Corequisite(s): PSY 1010
Exposes students to psychology as a field of study and as a career option and serves as a foundation of their undergraduate education. Teaches the basics of social science writing convention (scholarly tone, precise language, APA style, etc.). Shows how psychology can provide insight into important social and scientific requirements.

PSY 2250
Psychology of Interpersonal Relationships
3
* Prerequisite(s): ENGL 1010 or ENGL 1005 (with a C- grade or higher) and PSY 1010 (with a C- grade or higher)
Integrates cognitive psychological theory in an experiential setting to build personal communication skills. Helps students better understand their interactions with others. Teaches practical skills used in personal, professional, and social relationships. Studies problem-solving models and conflict resolution methods.

PSY 2300
Abnormal Psychology
3
* Prerequisite(s): PSY 1010 (with C- grade or higher) and (ENGL 2010 with a C+ grade or higher)
Examines the psychology, historical explanations, and current biological and psychological theories of abnormal behavior. Emphasizes the description of mental disorders according to the American Psychiatric Association Diagnostic and Statistical Manual. Canvas Course Mats $35/Lumen applies.

PSY 2400
Positive Psychology
3
* Prerequisite(s): PSY 1010 (grade of C- or higher) and ENGL 1010 or ENGL 1005 (grade of C- or higher)
Provides an overview of the scientific study of human strengths and virtues. Examines topics such as happiness, optimism, gratitude, altruism, forgiveness, human strengths, optimal performance, and personal fulfillment. Knowledge gains are reinforced with personalized experiential learning activities.

PSY 2710
Introduction to Brain and Behavior
3
* Prerequisite(s): ENGL 1010 or ENGL 1005 with a C+ or higher
Introduces neuroanatomy and neurophysiology. Includes how neurons communicate to coordinate various functions and behaviors. Addresses research methods used to study the brain and the nervous-system mechanisms to control functions and behaviors.

PSY 275R
Survey of Current Topics
1 to 3
* Prerequisite(s): (ANTH 101G or PSY 1010 or SOC 1010) and (ENGL 1010 or ENGL 1005) with a C+ grade or higher
Provides an overview of the scientific study of human strengths and virtues. Examines topics such as happiness, optimism, gratitude, altruism, forgiveness, human strengths, optimal performance, and personal fulfillment. Knowledge gains are reinforced with personalized experiential learning activities.
PSY 2800 (Cross-listed with: HLTH 2800)  SS
Human Sexuality
3
* Prerequisite(s): ENGL 1010 or ENGH 1005
Interdisciplinary course in human sexuality, exploring topics in biology, health, psychology, and sociology. Introduces basic concepts of human sexuality, including anatomy, reproduction, and sexual response across the life-cycle. Studies gender roles, sexual orientation, dysfunction, and sexually transmitted disease. Examines sexual behavior from the perspective of ethics, religion, the law, and education. Students assess their sexual attitudes and should be able to make responsible sexuality decisions.

PSY 289R
Beginning Research Experience 1 to 3
* Prerequisite(s): PSY 1010 with a C or higher; ENGL 1010 or ENGH 1005 with a C+ or higher; Instructor approval
Beginning course on research in psychology. Explores psychological literature to investigate topics of interest. Requires individual initiative and responsibility. Includes limited formal instruction and faculty supervision. Projects will vary based on the student's needs and interests but may include literature searches, materials creation, data collection, or other options as approved by the instructor. May be repeated for a maximum of six credits toward graduation.

PSY 3030
Research Methods for Psychology 4
* Prerequisite(s): (PSY 3110 with a C- or higher), (ENGL 2010 with a C+ or higher), and University Advanced Standing
Explains the logic of the classical true experiment and how it permits causal inferences. Compares and contrasts the benefits and drawbacks of quasi-experimental and correlational research designs. Includes the design of an empirical psychological study. Covers compliance with guidelines for ethical research as codified in law and the American Psychological Association's ethics code. Requires collection, analysis, and presentation of quantitative data for an empirical psychological study. Includes a lab.

PSY 3100
Psychology of Gender 3
* Prerequisite(s): PSY 1010 (with a C- grade or higher) and (ENGL 2010 with a C+ grade or higher) and University Advanced Standing
For Behavioral Science majors and others interested in gender issues from a psychological perspective. Examines the topic of gender behaviors and attitudes that relate to (but are not entirely congruent with) biological sex. Discusses biological influences on gender, gender differences, gender development, and the influence of gender on various dimensions of daily life.

PSY 3105
Health Psychology 3
* Prerequisite(s): (PSY 1010 or PSY 1100) with grade C- or higher or (Community Health major and HLTH 2800 or HLTH 3260) with grade C- or higher, ENGL 2010 with grade C+ or higher, and University Advanced Standing
Examines underlying biological, psychological, and social factors, that interact and contribute to illnesses. Examines how beliefs, attitudes, and lifestyles contribute to overall health. Includes preventative strategies and techniques. Introduces motivational strategies to work productively with patients in healthcare settings.

PSY 3110
Statistics for the Behavioral Sciences 4
* Prerequisite(s): MAT 1010 or higher and University Advanced Standing
Introduces use of statistics for research purposes. Teaches descriptive and inferential statistics. Includes central tendency, variability, correlation and regression, probability (particularly probability distributions), and various inferential techniques such as t-test for independent and dependent samples, one-way and two-way analysis of variance, post-hoc tests, and non-parametric statistics.

PSY 3200
Infant and Child Development WE 3
* Prerequisite(s): (PSY 1010 or PSY 1100) with grade C- or higher or (Community Health major HLTH 2800 or HLTH 3260) with grade C- or higher, and PSY 2020 with a grade of C- or higher; University Advanced Standing
Introduces concepts, theories, and research on normative processes of infant and child development. Describes developmental change in biological, socioemotional, and cognitive domains of development during infancy and childhood. Examines the life-cycle. Studies gender roles, sexual orientation, dysfunction, and sexually transmitted disease. Examines sexual behavior from the perspective of ethics, religion, the law, and education. Students assess their sexual attitudes and should be able to make responsible sexuality decisions.

PSY 3210
Adolescent Development WE 3
* Prerequisite(s): PSY 1010 and PSY 2020 with C- grade or higher and University Advanced Standing.
Introduces concepts, theories, and research on normative processes of adolescent development. Describes developmental change in biological, socioemotional, and cognitive domains of development during adolescence. Examines how beliefs, attitudes, and lifestyles contribute to illnesses. Examines how beliefs, attitudes, and lifestyles contribute to illnesses. Examines how beliefs, attitudes, and lifestyles contribute to illnesses. Examines how beliefs, attitudes, and lifestyles contribute to illnesses. Examines how beliefs, attitudes, and lifestyles contribute to illnesses. Examines how beliefs, attitudes, and lifestyles contribute to illnesses.

PSY 3220
Adult Development and Aging WE 3
* Prerequisite(s): PSY 1010 and PSY 2020 with C- grade or higher and University Advanced Standing
Introduces concepts, theories, and research on normative processes of adult development and aging. Describes developmental change in biological, socioemotional, and cognitive domains of development during adulthood. Examines the life-cycle. Studies gender roles, sexual orientation, dysfunction, and sexually transmitted disease. Examines sexual behavior from the perspective of ethics, religion, the law, and education. Students assess their sexual attitudes and should be able to make responsible sexuality decisions.

PSY 3300
Motivation and Emotion 3
* Prerequisite(s): PSY 1010, (ENGL 1010 or ENGH 1005 with a C+ or higher), and University Advanced Standing
Examines motivation and emotion that underline thought and behavior from a variety of perspectives. Examines the various theoretical approaches to motivation and emotion such as biological, phenomenological, cognitive, developmental and social constructivist approaches. Examines the historical background of motivation and emotion research, as well as a number of current applied motivational approaches.

PSY 3420
Cognitive Psychology WE 3
* Prerequisite(s): PSY 1010 (with C- grade or higher) and (ENGL 2010 with a C+ or higher) and University Advanced Standing
Introduces the core concepts, theoretical perspectives, empirical findings, and historical trends in cognitive psychology. Includes perception, attention, memory, and higher cognitive processes. Explores animal as well as human research.
Course Descriptions

PSY 3425
Cognitive Psychology Lab
1
* Prerequisite(s): PSY 1010 (with C- grade or higher); (ENGL 2010 with a C+ or higher); and University Advanced Standing
* Corequisite(s): PSY 3420

Provides firsthand experience with core concepts and empirical practices within cognitive psychology. Creates opportunities for the application of practical research skills. Includes a discussion of topics such as sensation, perception, attention, memory, and higher-order cognition.

PSY 3430
Psychopharmacology WE
3
* Prerequisite(s): PSY 2710 (with C- grade or higher) or (ZOOL 2320 and ZOOL 2420 with C- grade or higher in both courses) and (ENGL 2010 with a C+ grade or higher); University Advanced Standing

Addresses basic principles of nervous system function with emphasis on communication between nerve cells. Focuses on therapeutic drugs as well as drugs of abuse to include mechanisms of action and behavioral effects.

PSY 3450
Behavioral Neuroscience
4
* Prerequisite(s): PSY 2710 (with C- grade or higher) or (ZOOL 2320 and ZOOL 2420 with C- grade or higher in both courses) and (ENGL 2010 with a C+ grade or higher); University Advanced Standing.

Identifies major interactions between physiology and behavior. Covers physiological analysis, structures and functions of the nervous system. Investigates topics including sensory and motor function, states of consciousness, sexual behavior, psychopathology, learning and memory. Course lab fee of $15 for supplies applies.

PSY 3460
Personality Theory
3
* Prerequisite(s): PSY 1010 (with C- grade or higher) and (ENGL 2010 with a C+ grade or higher) and University Advanced Standing

Introduces the basic psychological theories attempting to answer the question ‘What is Personality?’ Examines the scientific study of the uniqueness of each of us as individuals. Explores how individuals develop personality similarities as well as differences by examining classical personality theories, societal influences, cultural variations, behavioral genetics, anatomy and biochemistry, sex and gender differences and family function. May be delivered hybrid and/or online. Canvas Course Mats of $66/McGraw applies. Course fee of $15 for materials.

PSY 3480
Principles of Learning
4
* Prerequisite(s): PSY 1010 (with C- grade or higher) and (ENGL 2010 with a C+ or higher) and University Advanced Standing

Examines major concepts, theoretical perspectives, empirical findings, and historical trends in the scientific study of behavior. Focuses on application of psychological principles to personal, social, and organizational issues, as appropriate. Stresses use of critical and creative thinking, skeptical inquiry, and the scientific approach to solve problems related to behavior.

PSY 3490
Sensation and Perception WE
4
* Prerequisite(s): (PSY 1010 and PSY 2710 both with C- grade or higher), ENGL 2010 (with a C+ grade or higher), and University Advanced Standing.

Provides a foundation in how sensory systems interpret the world. Explores each of the primary sensory systems by defining the physical energy that is detected. Examines how that energy is transduced into neural impulses, and samples how aspects of that information are encoded to provide a representation of our world. Takes a neuroscientific approach to the topic, beginning with an overview of the nervous system, including the organization of the brain and spinal cord, how neurons work, and how neurons communicate with each other. Course lab fee of $15 for supplies applies.

PSY 350G
Social Psychology
3
* Prerequisite(s): PSY 1010 (with grade C- or higher) and (ENGL 2010 with a C+ grade or higher) and University Advanced Standing

Studies the ways in which social context influences behavior. Reviews both social and psychological research. Includes culture and personality theory. Presents a multi-disciplinary approach to understanding human behavior. Requires a research project to observe and report individual or group behavior in a real life setting. May be delivered hybrid.

PSY 3660
Neuroscience of Emotion
3
* Prerequisite(s): PSY 2710, University Advanced Standing and Instructor approval

Explores the scientific investigation of the biological basis of emotion in human and non-human animals. Provides an overview of the neural correlates of emotional states. Examines the role of neurotransmitter systems, anatomical structures, and neural circuits. Requires collection, analysis, and presentation of current primary research.

PSY 3710
Introduction to Forensic Psychology
3
* Prerequisite(s): PSY 1010 (with grade C- or higher) and (ENGL 2010 with a C+ or higher) and (PSY 2300 or PSY 3500 with a C- or higher) and University Advanced Standing

Introduces the complex field of forensic psychology which involves the overlap between the science of psychology and the law. Builds a basic understanding of the psychological principles and concepts that are part of the legal system. Highlights how the science of psychology potentially contributes to improvements and changes in the legal system. Outlines the role of forensic psychologists with regard to the legal system. Emphasizes ideas regarding potential careers in the field. Provides students the opportunity to customize course activities to suit their learning needs and styles from a variety of choices.

PSY 3850
Psychology of Good and Evil
3
* Prerequisite(s): PSY 1010 and (ENGL 2010 with a C+ grade or higher) and University Advanced Standing

Provides an integrated approach to understanding the roots of good and evil in human behavior. Explores theories and studies of human caring and destructiveness. Analyzes and develops psychological explanation of why individuals choose different courses of action under similar circumstances. Explores such concepts as attachment and parental discipline, bystander phenomena, response to authority, genocide, killing during war, group identity, bullying, views of the other and racism, forgiveness and reconciliation, and psychopathology and the biology of emotion.

PSY 4150
Tests and Measurements
3
* Prerequisite(s): (ENGL 2010 with a C+ grade or higher), PSY 3110 (with grade C- or higher), and University Advanced Standing

Introduces the history of psychological tests, examines tests in use at the present time and considers the appropriate roles of psychological testing in modern society. Studies individual and group assessment in the areas of intelligence, aptitude, achievement, personality and interest. Critically evaluates tests and other instruments of measurement for validity and reliability.
PSY 4300
Introduction to Counseling and Psychotherapy
3
* Prerequisite(s): PSY 1010 (with grade C- or higher) and PSY 2300 (with a C- grade or higher) and (ENGL 2010 with a C+ grade or higher) and University Advanced Standing.

Surveys concepts and practices of major therapeutic systems. Introduces students to the major psychotherapeutic models. Addresses basic counseling issues including ethics and professionalism. Develops skills in relationship development, interviewing, initial assessment and intake procedures.

PSY 4400
Introduction to Group Psychotherapy
3
* Prerequisite(s): PSY 1010 (with C- grade or higher), PSY 2300 (with grade C- or higher), (ENGL 2010 with a C+ or higher), and University Advanced Standing.

Discusses group therapy theory, research applied to client assessment and outcomes, legal and ethical issues. Includes learning activities such as screening, assessment, treatment, evaluation, and termination of group members.

PSY 4461 (Cross-listed with: PHIL 4461)
Moral Psychology
3
* Prerequisite(s): (PHIL 2050 or PHIL 205G or PHIL 205H or PSY 1010 or PSY 101H) and University Advanced Standing.

Analyzes questions about how people engage in moral thinking and in moral behavior from the perspectives of the philosophy of mind, ethics and psychology. Explores topics such as virtue and character, reason and passion, altruism and egoism, agency and responsibility, and moral intuitions.

PSY 4500
History and Systems of Psychology
3
* Prerequisite(s): PSY 1010 (with C- grade or higher) and (ENGL 2010 with a C+ grade or higher) and University Advanced Standing.

Identifies key contributors, historical systems and theories within the field of psychology. Includes contributions to present knowledge of affect, behavior, and cognition. Stress similarities and differences between theories. Especially for students planning to take the Advanced Psychology Subject Test portion of the GRE.

PSY 4666
East Meets West Psychology
3
* Prerequisite(s): PSY 1010, ENG 2010, and University Advanced Standing.

Examines Eastern and Western spiritualities and their application to mental health. Synthesizes these systems of belief with Western phenomenology. Critiques the theory and practice of psychology from this broader spiritual perspective. Applies these spiritual systems to the theory, research and practice of psychology. Provides experience of meditation, spiritual centering, and respectful spiritual discourse.

PSY 4690
Human Intelligence
3
* Prerequisite(s): PSY 1010 (with grade C- or higher), PSY 3110 (with grade C- or higher), and ENGL 2010 (with a C+ grade or higher); University Advanced Standing.

Explores theories about human intelligence and how intelligence impacts health, social, and psychological outcomes. Considers how cognitive and biological variables are related to individual differences in human intelligence.

PSY 475R
Current Topics in Psychology
1 to 3
* Prerequisite(s): PSY 1010 and (ENGL 2010 with a C+ grade or higher) and University Advanced Standing.

Presents selected topic in Psychology and will vary each semester. Requires a project demonstrating competency in the specific topic. May be repeated with different topics for 9 credits toward graduation.

PSY 480G
Cross-Cultural Psychology
3
* Prerequisite(s): PSY 1010 and University Advanced Standing.

Offers an opportunity to develop an appreciation for the interplay between psychological and cultural contributions to personal and group growth and well-being. Explores how culture influences the lived experience, particularly as it pertains to relativity. Gives consideration to both within and between culture variability.

PSY 482R
Internship Seminar
1
* Prerequisite(s): University Advanced Standing.
* Corequisite(s): BESC 481R

Provides integration of classroom learning with learning that takes place in an on-site internship. To be taken concurrently with BESC 481R, Senior Internship. May be repeated for a maximum of 8 credits toward graduation.

PSY 483R
Psychology Internship
1 to 3
* Prerequisite(s): PSY 1010 with grade C- or higher; PSY 3110 with grade C- or higher; and University Advanced Standing.

Allows psychology students with non-clinical orientation to receive psychology credits for internships in a governmental, corporate, or private agency apart from their regular employment. Provides practical and research experience over the course of the 15-week semester. Requires professional supervision. May be repeated for a maximum of 8 credits toward graduation.

PSY 4850
Introduction to Pedagogy
3
* Prerequisite(s): PSY 1010; (ENGL 2010 with a C+ or higher); instructor approval; and University Advanced Standing.

Builds a foundation for teaching at the college level through the study of best practices in college pedagogy via primary sources, review papers, and expert perspectives. Applies pedagogical knowledge through the delivery of multiple guest lectures on campus after creating appropriate course materials.

PSY 488R
Advanced Research Experience in Psychology
1 to 3
* Prerequisite(s): PSY 1010 with a C grade or higher; ENGL 2010 with C+ grade or higher; University Advanced Standing; Instructor approval.

Expands research experience by either (1) significantly assisting on a faculty member’s research project or (2) carrying out an independent research project of the student’s design under faculty mentorship. May be repeated for a maximum of 6 credits toward graduation.

PSY 490R
Independent Studies
1 to 3
* Prerequisite(s): Instructor approval, department chair approval, and University Advanced Standing; for Behavioral Science Bachelor Degree students only.

For qualified students who wish to undertake a well-defined project or directed study related to an area of special interest. Requires individual initiative and responsibility. Includes limited formal instruction and faculty supervision. Projects may include writing a publishable paper, passing a competency exam, producing an annotated bibliography, oral presentation, or other options as approved by instructor. May be repeated for a maximum of 6 credits.
Course Descriptions

PSY 491R
Psychology Capstone Internship
1 to 3
* Prerequisite(s): University Advanced Standing and instructor approval
* Corequisite(s): PSY 492R
Provides an in-depth experience applying knowledge from two or more of the following areas of psychology: statistics/research methods, biological, developmental, cognitive, social/personality, and mental and physical health. May not be part of the student's regular employment. Requires professional supervision. Requires faculty approval and signed written contracts. May be repeated for a maximum of 8 credits toward graduation.

PSY 492R
Psychology Capstone Seminar
1
* Prerequisite(s): Advanced University Standing and instructor approval
* Corequisite(s): PSY 491R
Provides integration of classroom learning with the student's capstone internship. Reinforces learning outcomes of the psychology capstone internship. May be repeated for a maximum of 8 credits toward graduation.

Recreation (REC)

REC 1505
Whitewater Kayaking I
1
Teaches basic kayaking skills to the beginning kayaker. Includes roll techniques, paddle strokes, eddy turns, ferrying, river hazards, and rescue techniques. Requires the ability to swim 100 yards without stopping first day of class. Course fee of $150 applies for transportation, equipment applies.

REC 1506
Whitewater Kayaking II
1
* Prerequisite(s): REC 1505
Builds on whitewater skills initially taught in Whitewater Kayaking I. Develops the skills and knowledge to assist in instruction and river rescue. Prepares students to help others learn to kayak, preparing them for ACA whitewater certification.

REC 1512
Fly Tying I
1
For students interested in learning or perfecting fly tying skills. Discusses and demonstrates necessary fly tying tools, materials, and knots. Introduces aquatic entomology. Studies various fly types including wet fly, dry fly, nymph, and streamer. Includes hands-on experience.

REC 1513
Fly Casting I
1
For students interested in learning or perfecting fly casting skills. Studies types and classification of fly rods and reels. Teaches the physics of casting and casting techniques. Includes hands-on experience. Course fee of $10 applies for materials, equipment applies.

REC 1514
Ropes Course and Teambuilding
1
Provides participants with the opportunity to participate in a group and personal development process which utilizes the ropes course as an educational tool. Consists of 3 phases. Phase I - game and exercises designed to help participants get to know and feel at ease with each other. Phase II - group initiative games/ problem solving activities which develop group communication skill, cooperation, and problem solving ability. Phase III - Ropes Course activities/individual challenge which allows class members to test their physical capabilities and individual limits. Course fee of $80 for transportation, equipment, and support.

REC 1500
Canoeing I
1
Teaches basic canoeing techniques including safety, technical information, equipment, paddling skills, and canoe maneuvering. Requires overnight camping. Requires the ability to swim 100 yards without stopping on the first day of class. Course fee of $88 for transportation, equipment applies.

REC 1501
Canoeing II
1
* Prerequisite(s): REC 1500 or Instructor Permission
Prepares students to qualify to become instructors who will teach on water up to and including Class I on the International Scale of River Difficulty. Prepares students to teach the American Canoe Association's Intro to Canoe course on flat water, and the Basic River Canoe course in a river environment and to teach students fundamental river paddling skills including boat handling, paddling technique, identifying hazards, river reading and self-rescues in moving water.

REC 1521
Indoor Rock Climbing I
1
Teaches basic rock climbing skills to the beginning indoor rock climber. Includes knot tying, belaying, rappelling, fixed anchors, beginning indoor climbing, and rescue techniques. Prepares student for enjoyment of indoor climbing facilities, and introduces concepts related to sport climbing. Course fee of $90 for support, equipment applies.

REC 1522
Indoor Rock Climbing II
1
* Prerequisite(s): REC 1521
Builds on skills and experiences gained in Indoor Rock Climbing I. Focusses on lead climbing in the indoor sport context with emphasis on higher skill development, on-site and red point techniques. Course fee of $90 applies for support, equipment applies.

REC 1525
Mountaineering
1
* Prerequisite(s): REC 1535, REC 1527
Covers mountaineering subjects including hiking, rock climbing, mountain camping, and mountain survival. Requires good health and fair physical condition in order to enjoy the class. Provides technical climbing and safety equipment. Students provide camping equipment (this may be rented at a low cost at the Outpost on campus), boots or shoes, clothing and leather gloves suitable for hiking and climbing. Taught on block only. Course fee of $70 for transportation, materials, and equipment applies.

REC 1527
Rock Climbing I
1
* Prerequisite(s): REC 1521
Teaches basic rock climbing skills to the beginning rock climber. Includes knot tying, belaying, rappelling, top-rope anchors and site management, beginning lead climbing, and rescue techniques. Course fee of $20 for equipment applies.

REC 1528
Rock Climbing II
1
* Prerequisite(s): REC 1527 or Instructor Approval
Teaches intermediate rock climbing skills. Includes placing passive and active anchors on simulated lead climbs, multi-pitch belaying and rappelling. Teaches self- and partner-rescuing, ascending, route finding, crack and face climbing techniques, rock shoe resoling, and an introduction to aid climbing. Course fee of $90 for transportation, equipment applies.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>REC 1535</td>
<td>Backpacking</td>
<td>Ability to carry a 40 lbs pack for 15-25 miles</td>
<td>Covers the basic aspects of backpacking, camping, and wilderness travel. Includes labs, lectures, demonstration, audio-visual and extended field trips. Teaches basic components of backpacking and lifelong values of outdoor recreation. Requires multi-night backpacking trip. Course fee of $88 for transportation, equipment, and support applies.</td>
</tr>
<tr>
<td>REC 1542</td>
<td>Wilderness First Responder</td>
<td></td>
<td>Teaches advanced emergency care specific to situations encountered in a wilderness context. Prepares students for certification exam in Wilderness First Responder (WFR) or Wilderness Emergency Medical Technician Module (WEMT). Experiential Learning Credit must be from a WFR course with at least 72 hrs of contact time.</td>
</tr>
<tr>
<td>REC 1550</td>
<td>Mountain Biking</td>
<td>Ability to carry a 40 lbs pack for 15-25 miles</td>
<td>Provides the students with knowledge of cycling techniques when traveling off the pavement. Teaches bicycle maintenance and tuning. Includes several off-road rides. Stresses the enjoyment and lifetime benefits of mountain biking riding. Taught on block only. Course lab fee of $16 applies.</td>
</tr>
<tr>
<td>REC 1580</td>
<td>Kayak Touring</td>
<td>Must be able to swim 100 yards without stopping</td>
<td>Introductory course which teaches basic skills necessary to safely enjoy flat water (non-tidal) kayak touring. Teaches equipment selection, strokes, safety and rescue techniques. Field trip required for course completion. Course fee of $84 for transportation, equipment applies.</td>
</tr>
<tr>
<td>REC 1600</td>
<td>Winter Exploration</td>
<td>REC 1535</td>
<td>Teaches basics of snowshoeing, cross-country skiing, and winter camping, including Leave No Trace, cooking, staying warm, and building shelters. Covers risks and hazards of the winter environment. Requires overnight camping. Course lab fee of $45 course fee for equipment applies.</td>
</tr>
<tr>
<td>REC 1605</td>
<td>Skiing I</td>
<td></td>
<td>For the beginning skier. Covers basic skiing concepts including straight runs, stops, turns, traverses, and beginning parallel. Includes demonstration and participation. Grading is based on attendance. Lessons are at the Sundance Ski Resort. (Transportation is not provided.) Uses UVU and Sundance instructors. Students are required to have own equipment and purchase a half-day pass each ski day.</td>
</tr>
<tr>
<td>REC 1606</td>
<td>Skiing II</td>
<td></td>
<td>For the intermediate skier. Designed for those with basic ski skills and who would like to improve their skiing technique. Instruction is given in parallel skiing over bumps and flat terrain, hockey stops, moguls and traversing steep terrain. Uses demonstration and participation. Grading is based on attendance. Lessons are at the Sundance Ski Resort. (Transportation is not provided.) Uses UVU and Sundance instructors. Students are required to have own equipment and purchase a half-day pass each ski day.</td>
</tr>
<tr>
<td>REC 1615</td>
<td>Snowboarding</td>
<td></td>
<td>Provides a fun challenge to snow boarders of every ability level, starting with the beginning novice to the advanced boarder. Gives instruction in straight runs, stops, turns (falling leaf, heel edge, toe edge), and carving. Includes skill demonstration and student participation. Grading is based on attendance, participation, demonstrating skills, and tests. Lessons are at the Sundance Ski Resort. (Transportation is not provided.) Uses UVU and Sundance instructors. Requires students to have their own equipment and purchase a half-day pass each ski day.</td>
</tr>
<tr>
<td>REC 1625</td>
<td>Cross Country Skiing</td>
<td></td>
<td>Presents basic ski touring techniques. Studies selection and utilization of winter touring equipment and clothing in relation to varying climatic and terrain conditions. Includes trail etiquette, avalanche avoidance, and other important factors for a successful winter tour. Includes classroom instruction and ski touring. Taught on block only.</td>
</tr>
<tr>
<td>REC 2010</td>
<td>Avalanche Awareness</td>
<td></td>
<td>Examines the relationship of people in the backcountry and their cause/effect relationship with ever-changing snow conditions. Prepares students to safely and effectively venture into the winter backcountry. Course fee of $53 for equipment applies.</td>
</tr>
<tr>
<td>REC 2200</td>
<td>Foundations of Recreation</td>
<td>ENGL 1010 or ENGH 1005</td>
<td>Introduces the study of Recreation. Studies the history and philosophy of the field of Recreation. Analyzes problems in areas covered under the umbrella of Recreation. Explores the Recreation sub-disciplines and related career and employment opportunities in this area.</td>
</tr>
<tr>
<td>REC 2400</td>
<td>Principles of Experiential Education in Recreation</td>
<td>REC 2200, ENGL 1010 or ENGH 1005 or MATH 1000 or higher</td>
<td>Introduces the principles and concepts of experiential education in the general context of recreation programming and prepares students for further study and skill development in context specific experiential education programming. Teaches history, theory, and ethics in the domain. Offers experience in the use of learning cycles, facilitation, feedback, processing, and effective communication techniques, risk management from both physical and emotional perspectives. Uses pedagogical lecture methods and experiential learning. Requires participation in experiential education programming and observation and participation in programs outside of class time.</td>
</tr>
<tr>
<td>REC 2450</td>
<td>Rock Climbing Site Management and Facilitation</td>
<td>REC 1527, REC 2400</td>
<td>Introduces the principles and concepts of experiential education in the general context of recreation programming and prepares students for further study and skill development in context specific experiential education programming. Teaches history, theory, and ethics in the domain. Offers experience in the use of learning cycles, facilitation, feedback, processing, and effective communication techniques, risk management from both physical and emotional perspectives. Uses pedagogical lecture methods and experiential learning. Requires participation in experiential education programming and observation and participation in programs outside of class time.</td>
</tr>
<tr>
<td>REC 2500</td>
<td>Introduction to Adventure Recreation</td>
<td></td>
<td>Explores the philosophy, meaning and value of outdoor adventure recreation. Studies planning, organizing and leading outdoor excursions. Includes hiking, canoeing, camping, scuba diving, cross-country skiing, snowshoeing, compass navigation, outdoor cooking, archery, golfing, etc.</td>
</tr>
</tbody>
</table>
REC 2600  Principles of Outdoor and Adventure Education  
3  
* Prerequisite(s): REC 1535 and REC 2400  
Teaches leadership of outdoor and adventure education topics necessary for instructing the beginning student. Uses pedagogical lecture methods and experiential learning. Includes industry standard presentations and critiques of orienteering, map reading, packing, backcountry cooking, campsite set-up, food rationing, river crossing, proper clothing, water purification, hygiene, weather forecasting, backcountry travel, Leave No Trace ethics, and personal risk management. Requires hiking or orienteering assignments outside of class. Prepares students to qualify for certification as Wilderness Stewards through the Wilderness Education Association. Addresses risk management from both physical and emotional perspectives. Uses pedagogical lecture methods and experiential learning. Requires observation and participation in programs outside of class time.

REC 2650  Principles of Challenge Education  
3  
* Prerequisite(s): REC 1516, REC 2400  
Prepares students for employment in the challenge education and experientially-based training and development sectors. Teaches students functional aspects of challenge education, facility design and use, program design for specific populations, facilitation and processing; as well as, assessment and evaluation of programs. Addresses risk management from both physical and emotional perspectives. Utilizes pedagogical lecture methods, experiential learning, and participation in challenge education programming. Requires observation and participation in programs outside of class time. Course fee of $95 for transportation, support applies.

REC 2700  Leave No Trace Trainer  
1  
* Prerequisite(s): REC 1535  
Designed to train environmental leaders and interpreters in the delivery of Leave No Trace (LNT) principles and practices. Emphasizes the skills and ethics necessary for low impacts on the environment.

REC 2750  Principles of Water Based Adventure Education  
3  
* Prerequisite(s): REC 2600, REC 2650, or University Advanced Standing  
Teaches skills and knowledge for water based adventure. Includes industry standard presentations and critiques of orienteering, map reading, packing, backcountry cooking, campsite set-up, food rationing, river crossing, proper clothing, water purification, hygiene, weather forecasting, backcountry travel, Leave No Trace ethics, and personal risk management. Requires observation and participation in programs outside of class time. Course fee of $95 for transportation, support applies.

REC 2775  Principles of Water Based Adventure Education  
3  
* Prerequisite(s): REC 2650  
Teaches skills and knowledge for water based adventure. Includes industry standard presentations and critiques of orienteering, map reading, packing, backcountry cooking, campsite set-up, food rationing, river crossing, proper clothing, water purification, hygiene, weather forecasting, backcountry travel, Leave No Trace ethics, and personal risk management. Requires observation and participation in programs outside of class time. Course fee of $95 for transportation, support applies.

REC 3100  Recreation Program Planning  
3  
* Prerequisite(s): REC 2200 or instructor approval and University Advanced Standing  
* Prerequisite(s) or Corequisite(s): MATH 1000 or higher  
Investigates program planning and development in outdoor programs, camps, agencies, and education organizations. Emphasizes writing of technical program plans that state goals, program organization, curriculum, budgets, marketing, and evaluation.

REC 3200  Inclusive Recreation  
3  
* Prerequisite(s): REC 2400, REC 3100, and University Advanced Standing  
Recreation service delivery for individuals with disabilities and other under-represented groups. Presents solutions to full recreation participation for individuals with physical, sensory, emotional and/or intellectual impairments. Incorporates hands on experience working with diverse populations.

REC 3300  Wilderness Skills  
1  
* Prerequisite(s): REC 1535 and University Advanced Standing  
* Prerequisite(s) or Corequisite(s): REC 2200  
Teaches tools and skills needed for surviving in the wilderness. Includes orienteering, map reading, packing, backcountry cooking, campsite set-up, food rationing, river crossing, proper clothing, water purification, hygiene, weather forecasting, backcountry travel, Leave NO Trace ethics, and personal risk management. Course fee of $30 for transportation, equipment, and support applies.

REC 3400  Risk Management  
3  
* Prerequisite(s): REC 2200 and University Advanced Standing  
* Prerequisite(s) or Corequisite(s): MAT 1010  
Studies outdoor recreation risk management. Focuses on applying models of risk management, negligence, torts, risk management planning, and outdoor recreation safety.

REC 3500  Recreation Administration  
3  
* Prerequisite(s): REC 3100 and University Advanced Standing  
Analyzes the internal organization of a recreation department dealing with finances and accounting, records and reports, publicity and public relations, state and federal legislation, staff organization, coordination of community resources.

REC 3700  Natural Resource Interpretation  
3  
* Prerequisite(s): REC 2400 and University Advanced Standing  
Investigates theories, principles, and techniques of interpreting park, cultural, and natural resources to the public. Emphasizes techniques for providing interpretive programs developed for natural resources.

REC 385G  Ethical Concerns in Recreation  
3  
* Prerequisite(s): REC 2400, PHIL 2050, and University Advanced Standing  
Examines the complex and controversial world of ethics as it pertains to the fields of outdoor recreation and natural resource management. Examines these fields from numerous perspectives; anthropocentric, biocentric and ecocentric, and theocentric.

REC 4000  Outdoor Leadership  
4  
* Prerequisite(s): REC 1535, REC 3300, REC 2600, REC 1542, and University Advanced Standing  
Examines principles and practices of leadership in outdoor recreation programs. Focuses on the examination of theories, practices, and problems of leadership in an adventure environment. Provides hand-on experiences with students required to plan and be in a leadership position. Requires 30 hours of volunteer work experience. Course fee of $126 for transportation, equipment, and support applies.

REC 410R  Experiential Learning Expedition  
1 to 6  
* Prerequisite(s): Department approval and University Advanced Standing  
Teaches experiential learning and leadership in a expedition context. Includes but not limited to expedition planning, hard skills development, expedition behavior and group dynamics, team building, adventure tourism, and local cultural/natural resources. Repeatable up to 12 credits. Course fee of $700 for transportation, activities applies.

REC 420R  Outdoor Leadership and Management Practicum  
2  
* Prerequisite(s): REC 2400, Instructor approval, and University Advanced Standing  
Provides students with practical work experience (volunteer or paid) either through a program offered by the college or in an existing outdoor or experientially based agency. Includes participation in a 150 hour department approved supervised outdoor recreation service. Examines topics that vary by practicum experience. May be repeated for a total of 6 hours toward graduation. May be graded credit/no credit.
### Course Descriptions

#### Respiratory Therapy (RESP)

**RESP 1540**  
Survey of Respiratory Therapy  
1  
Introduces students to the profession of respiratory therapy. Includes field trips and limited lab activities. Open to all students.

**RESP 2145**  
Fundamentals of Respiratory Care Lab  
3  
* Prerequisite(s): Acceptance into the Respiratory Therapy Program  
* Corequisite(s): RESP 2300 and RESP 2520  
Provides laboratory experiences to develop basic patient interaction and assessment skills required of an entry-level respiratory therapist. Emphasizes students’ ability to carry out commonly ordered respiratory therapy procedures. Includes participation in respiratory care simulations. Course lab fee of $225 applies.

**RESP 2165**  
Mechanical Ventilation Lab  
2  
* Prerequisite(s): RESP 2145  
* Corequisite(s): RESP 2320  
Provides laboratory experience with mechanical ventilation techniques and equipment. Emphasizes patient observation and assessment skills, as well as techniques in initiating, troubleshooting, monitoring, managing, and weaning ventilator parameters. Course lab fee of $217 applies.

**RESP 2210**  
Cardiopulmonary and Renal Anatomy and Physiology I  
3  
* Prerequisite(s): Acceptance into the Respiratory Therapy Program  
Introduces anatomy and physiology of the pulmonary, cardiovascular, and renal systems. Includes principles of fluid dynamics governing oxygen and carbon dioxide transport throughout the body.

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**REC 430R**  
Teaching Assistantship in Outdoor Recreation  
1 to 4  
* Prerequisite(s): Instructor Approval and University Advanced Standing  
Provides students who have demonstrated a high level of proficiency to serve as assistant instructors in selected Outdoor Recreation courses. Requires students to take active leadership roles. Includes planning, sequencing and teaching outdoor recreation topics and skills with faculty supervision. May be repeated for up to 8 credit hours toward graduation. Graded Credit/No Credit.

**REC 4350**  
Research Methods in Outdoor Recreation  
3  
* Prerequisite(s): REC 2400 and (MAT 1010 or higher) and University Advanced Standing  
Introduces students to key research in their field. Emphasizes analytical and interpretive skills. Develops scientific writing skills. Promotes design and utilization of comprehensive research methodologies commonly applied in Outdoor Recreation.

**REC 4400**  
Natural Resource and Protected Area Management  
3  
* Prerequisite(s): REC 2200 and University Advanced Standing  
Examines topics in the management of Nation Parks, National Forests, Bureau of Land Management, and other public lands and protected areas focusing on management strategies and techniques for addressing common resource and social problems in natural resource recreation management. Emphasizes case studies and problem analysis. Course fee of $30 applies for transportation, support applies.

**REC 4500**  
Wildland Recreation Behavior  
3  
* Prerequisite(s): REC 4400 and University Advanced Standing  
Studies behaviorally-based models and relevant research in wildland recreation. Provides an in-depth analysis of human behavior influences and topics including visitor satisfaction, crowding, carrying capacity, resource destruction, motivations, attitudes, preferences, norms, conflicts, and specialization. Using these theoretical concepts, visitor-based management models will be presented and criticized. Emphasis on critical problems affecting public land recreation management. Course fee of $20 applies for transportation, support applies.

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**REC 4800**  
Professional Preparation in Recreation  
1  
* Prerequisite(s): University Advanced Standing  
* Prerequisite(s) or Corequisite(s): REC 2400  
Prepares the student to make the transition from student to professional in Outdoor Recreation. Includes discussion of internship selection, application materials, interviewing skills, job search, salary negotiation, and other professional issues. Provides mentoring during the internship search process.

**REC 481R**  
Senior Internship  
1 to 8  
* Prerequisite(s): REC 4800, REC 420R, 80 credit hours completed, minimum 2.5 GPA, instructor approval, and University Advanced Standing  
Provides supervised, hands-on field experience for excellent students preparing to take entry-level positions in recreation. May be repeated for a maximum of 12 credits toward graduation. May be graded Credit/No Credit.

**REC 489R**  
Undergraduate Research in Recreation  
1 to 4  
* Prerequisite(s): REC 2200, Departmental approval of research proposal, and University Advanced Standing  
Provides students the opportunity to conduct research under the mentorship of a faculty member. Students will put in practice the theoretical knowledge gained in prior major courses. Students will create a significant intellectual or creative product that is characteristic of the recreation discipline and worthy of communication to a broader audience. May be repeated for a maximum of 8 credits toward graduation.

**REC 490R**  
Topics in Recreation  
1 to 3  
* Prerequisite(s): (REC 2200 or Instructor Approval) and University Advanced Standing  
Focuses student reading, research, and discussion on specific areas of concentration within the field of outdoor recreation management. (Specific areas of focus will change as the instructor and his or her focus or expertise changes.) Analyzes how outdoor recreation affects and is affected by culture, ideology, socio-economic factors, history, etc. Focuses may include: Recreation and Popular Culture, Recreation and Diversity, and History and Philosophic Issues in Recreation, among others. May be repeated for up to 6 credits toward graduation.

**REC 4950**  
Senior Seminar  
2  
* Prerequisite(s): REC 2400, REC 3100, REC 4800, STAT 1040 or higher, and University Advanced Standing  
Examines current outdoor recreation topics that allow senior students the opportunity to relate academic studies to the latest problems, changes, and trends in the field.

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**RESP 2140**  
Survey of Respiratory Therapy  
1  
Introduces students to the profession of respiratory therapy. Includes field trips and limited lab activities. Open to all students.

**RESP 2145**  
Fundamentals of Respiratory Care Lab  
3  
* Prerequisite(s): Acceptance into the Respiratory Therapy Program  
* Corequisite(s): RESP 2300 and RESP 2520  
Provides laboratory experiences to develop basic patient interaction and assessment skills required of an entry-level respiratory therapist. Emphasizes students’ ability to carry out commonly ordered respiratory therapy procedures. Includes participation in respiratory care simulations. Course lab fee of $225 applies.

**RESP 2165**  
Mechanical Ventilation Lab  
2  
* Prerequisite(s): RESP 2145  
* Corequisite(s): RESP 2320  
Provides laboratory experience with mechanical ventilation techniques and equipment. Emphasizes patient observation and assessment skills, as well as techniques in initiating, troubleshooting, monitoring, managing, and weaning ventilator parameters. Course lab fee of $217 applies.

**RESP 2210**  
Cardiopulmonary and Renal Anatomy and Physiology I  
3  
* Prerequisite(s): Acceptance into the Respiratory Therapy Program  
Introduces anatomy and physiology of the pulmonary, cardiovascular, and renal systems. Includes principles of fluid dynamics governing oxygen and carbon dioxide transport throughout the body.
RESP 2230  
Cardiopulmonary Pathophysiology I  
2  
* Prerequisite(s): Acceptance into the Respiratory Therapy Program  
* Corequisite(s): RESP 2210  
Covers the underlying pathophysiology of medical and surgical cardiopulmonary diseases. Emphasizes abnormal physiological processes which result in the signs and symptoms of each cardiopulmonary disorder. Includes diagnosis, selection, and implementation of therapeutic modalities and the role of the respiratory therapist in treatment.

RESP 2250  
Basic Patient Assessment  
2  
* Prerequisite(s): Acceptance into Respiratory Therapy Program.  
Introduces basic patient assessment techniques, including respiratory therapy application of obtaining patient history and physical examination. Emphasizes integration of laboratory and imaging studies.

RESP 2270  
Application of Cardiopulmonary Diagnostics  
3  
* Prerequisite(s): RESP 2210  
Introduces theory and clinical application of basic cardiopulmonary diagnostic studies, including simple spirometry, arterial and mixed venous blood gases, and electrocardiograms. Emphasizes critical thinking skills in interpretation of diagnostic findings.

RESP 2300  
Fundamentals of Respiratory Care  
3  
* Prerequisite(s): Acceptance into the Respiratory Therapy Program.  
* Corequisite(s): RESP 2145 and RESP 2520  
Examines principles and theory of clinical application of basic respiratory treatments and therapies, including indications, contraindications, hazards and complications, and equipment management. Includes principles and theory of clinical application of airway management and invasive and non-invasive ventilation. Emphasizes patient assessment and critical thinking skills.

RESP 2320  
Mechanical Ventilation I  
3  
* Prerequisite(s): RESP 2300  
* Corequisite(s): RESP 2165  
Introduces basic principles of mechanical ventilation, including determining the need for ventilation support, as well as initiation, maintaining, monitoring, and weaning from mechanical ventilation.

RESP 2330  
Enter Level Respiratory Therapy Review  
1  
* Prerequisite(s): RESP 2320  
Provides a comprehensive review to integrate concepts and skills in Respiratory Therapy.

RESP 2420  
Critical Thinking in Respiratory Care  
2  
* Prerequisite(s): RESP 2300  
Provides learning experiences for students to develop a deep and broad understanding of respiratory care content based on sound clinical decision making. Requires students to solve practical problems in respiratory care.

RESP 2520  
Principles of Pharmacology  
2  
* Corequisite(s): RESP 2300 and RESP 2145  
Introduces pharmacology, including general principles, autonomic and central nervous system agents, cardiovascular agents, and immunotherapeutic agents. Includes the study of drugs used in managing renal, GI tract, endocrine, and infectious or neoplastic diseases and disorders.

RESP 2705  
Clinical Practice I  
3  
* Prerequisite(s): RESP 2145  
Provides clinical rotations in the hospital environment allowing for mentored practice of skills. Emphasizes application of assessment skills including medical chart reviews and patient observation and examination. Includes recommendation, performance, and modification of basic therapies.

RESP 2715  
Specialty Clinical Experiences  
1  
* Prerequisite(s): RESP 2145  
Provides opportunity to observe and participate in specialty areas of the respiratory care profession.

RESP 2725  
Clinical Practice II  
3  
* Prerequisite(s): RESP 2705  
Provides clinical rotations in selected medical settings, focusing on skills of initiation, management, and weaning of mechanical ventilation. Includes case studies as well as patient care.

RESP 3210  
Cardiopulmonary and Renal Anatomy and Physiology II  
2  
* Prerequisite(s): RESP 2210 and University Advanced Standing  
Addresses cardiopulmonary anatomy and physiology specifically for the advanced-level respiratory care practitioner focusing on the advanced physiologic considerations of the cardiovascular, pulmonary, and renal systems.

RESP 3220  
Cardiopulmonary Pathophysiology II  
2  
* Prerequisite(s): RESP 2230 and University Advanced Standing  
Examines pathophysiology and diagnosis of coronary artery disease, fungal lung diseases, neoplasms, HIV, adult respiratory distress syndrome (ARDS), chest trauma, shock, multiple organ dysfunction syndrome (MODS), and differentiation of extracellular and intracellular fluid compartments.

RESP 3230  
Advanced Cardiopulmonary Technology  
2  
* Prerequisite(s): RESP 2270 and University Advanced Standing  
Explores advanced diagnostic procedures and develops interpretive skill in cardiopulmonary function, lung dynamics, specialty gases, blood gas analysis, and metabolic assessment.

RESP 3260  
Neonatal/Pediatric Critical Care  
3  
* Prerequisite(s): RESP 2320 and University Advanced Standing  
* Corequisite(s): RESP 3265  
Examines pediatric and neonatal respiratory care with an emphasis on intensive care activities, therapeutic procedures, life support modalities, and fetal, neonatal, and pediatric pathophysiology. Course lab fee of $69 applies.

RESP 3265  
Neonatal/Pediatric Critical Care Lab  
1  
* Prerequisite(s): RESP 2165 and University Advanced Standing  
* Corequisite(s): RESP 3260  
Provides laboratory experiences to develop advanced patient interaction and assessment skills in the areas of neonatal and pediatric critical care. Emphasizes students’ ability to carry out commonly ordered respiratory therapy procedures. Includes participation in respiratory care simulations.
RESP 3270
Adult Critical Care
2
* Prerequisite(s): RESP 2725 and University Advanced Standing

Examines advanced level adult respiratory care in the intensive care setting. Emphasizes ventilation/perfusion monitoring, hemodynamic monitoring, airway, assessment and critical patient management.

RESP 3280
Extended Care Roles for Respiratory Therapists
2
* Prerequisite(s): RESP 2270 and University Advanced Standing

Examines health models, processes, staffing, respiratory chronic disease management. Advanced Standing

RESP 3320
Mechanical Ventilation II
3
* Prerequisite(s): RESP 2320 and Advanced University Standing
* Corequisite(s): RESP 3325

Focuses on the study of advanced mechanical ventilation. Emphasizes advanced modes of ventilation, patient management, and assessment. Includes invasive and non-invasive ventilation techniques.

RESP 3325
Mechanical Ventilation II Lab
1
* Prerequisite(s): RESP 2165 and University Advanced Standing
* Corequisite(s): RESP 3320

Provides laboratory experience with mechanical ventilation techniques and equipment. Emphasizes advanced modes of ventilation, patient management, and assessment.

RESP 3430
Principles of Healthcare Education and Disease Management WE
3
* Prerequisite(s): RESP 2330 and University Advanced Standing

Introduces concepts and principles of respiratory chronic disease management. Examines health models, processes, staffing, training, patient advocacy/engagement, and reporting/reimbursement necessary to improve patient outcomes and reducing healthcare costs. Provides background in educational theory and practical application skills of educational delivery and evaluation within the construct of the health care environment.

RESP 3510
Anatomy and Physiology of Sleep 3
* Prerequisite(s): University Advanced Standing and Department approval. Requires (acceptance into the Respiratory Care Program or completion of a respiratory care program) or R.N. credential.

Introduces anatomy and physiology of the neurological, cardiac, and respiratory systems during the wake and sleep cycles. Emphasizes changes related to sleep disorders.

RESP 3520
Introduction to Sleep Disorders 3
* Prerequisite(s): RESP 3510 and University Advanced Standing

Provides an overview of the history of sleep medicine, normal sleep physiology, the effects of sleep-wake disruption, sleep disorders, and abnormal sleep physiology. Includes an introduction to polysomnography and the fundamentals of therapeutic interventions utilized to treat sleep disorders.

RESP 3765
Clinical Practice III Neonatal/Pediatric Respiratory Care 3
* Prerequisite(s): RESP 3260 and University Advanced Standing

Provides the foundations of therapeutic interventions and patient management for neonatal/pediatric clinical care. Emphasizes cardiovascular and airway management.

RESP 3785
Extended Roles in Respiratory Therapy Clinical 2
* Prerequisite(s): University Advanced Standing
* Prerequisite(s) or Corequisite(s): RESP 3280

Provides clinical experiences related to RESP 3280, such as rehabilitation, extended care, home care, polysomnography, patient assessment for discharge planning and quality management.

RESP 4610
Advanced Patient Assessment WE 3
* Prerequisite(s): RESP 3270 and University Advanced Standing

Examines health models, processes, staffing, respiratory chronic disease management. Advanced Standing

RESP 4630
Continuous Quality Improvement 2
* Prerequisite(s): University Advanced Standing

Examines health models, processes, staffing, respiratory chronic disease management. Advanced Standing

RESP 4640
Respiratory Therapy Capstone 2
* Prerequisite(s): RESP 3270 and University Advanced Standing

Focuses on areas of advanced respiratory care, leadership and management, case management, research, education, or other special area of interest. Student will identify and complete a project applying knowledge and skills learned in the program.

RESP 4775
Clinical Practice IV Adult Critical Care 4
* Prerequisite(s): RESP 3270 and University Advanced Standing

Provides mentored participation in the clinical care of patients in the adult critical respiratory care setting, with emphasis on hemodynamic monitoring and assessment, ventilation/perfusion monitoring, patient/ventilator monitoring and assessment, and airway management.

RESP 4800
Respiratory Therapy Seminar 3
* Prerequisite(s): University Advanced Standing

Focuses on areas of advanced respiratory care, leadership and management, case management, research, education, or other special area of interest. Student will identify and complete a project applying knowledge and skills learned in the program.

RESP 4890
Health Education and Promotion 1 to 4
* Prerequisite(s): University Advanced Standing and departmental approval.

Provides students an opportunity to pursue independent study in respiratory therapy with a faculty mentor. The health promotion project addresses the growing role of the Respiratory Care Practitioner (RCP) in patient education, public education, and health promotion in general. Requires preparation and presentation of oral and/or written reports. May be repeated for up to 4 credits toward graduation.

RESP 489R
Principles of Respiratory Care Research and Management 3
* Prerequisite(s): RESP 3270 and University Advanced Standing

Examines research methods and the scientific approach to critical appraisal of research literature. Analyzes scientific data to support approaches to respiratory care. Introduces theories, principles, and skills needed to function in a leadership position. Addresses the key issues confronting respiratory care leaders today.
Course Descriptions

RESP 490R
Special Projects in Respiratory Therapy
1 to 4
* Prerequisite(s): RESP 3210 and University Advanced Standing

Involves independent research projects related to the cardiopulmonary system and/or quality improvement. May be repeated for a maximum of 6 credits toward graduation.

RESP 4940
Special Topics in Respiratory Therapy
1
* Prerequisite(s): RESP 2320 and University Advanced Standing

Provides moderated discussion and/or laboratory experiences relating to current events in health care, legislative and ethical issues, and emergent technologies in respiratory care.

Religious Studies
(RLST)

RLST 3540 (Cross-listed with: PHIL 3540)
Christian Ethics
3
* Prerequisite(s): PHIL 1610 and University Advanced Standing

Examines key developments and conceptions in Christian ethics through historical and conceptual methodologies. Explores the relationship between religious and secular approaches to ethics in their approach to questions of war, economics, politics, and/or other relevant issues.

RLST 3610 (Cross-listed with: PHIL 3610)
Introduction to Christian Theology
3
* Prerequisite(s): PHIL 1610 and University Advanced Standing

Examines key developments and conceptions in Christian theology through historical and conceptual methodologies.

RLST 3620 (Cross-listed with: PHIL 3620)
Mormon Theology and the Christian Tradition
3
* Prerequisite(s): PHIL 1610 and University Advanced Standing

For students majoring in humanities-related disciplines and other students interested in the academic study of religion. Engages students in exploring the defining features of Mormon thought in relation to the broader Christian tradition. Examines traditional theological questions such as the problem of evil, the scriptural canon, the nature of God and humanity, and the role of ritual.

RLST 3650 (Cross-listed with: PHIL 3650)
Approaches to Religious Studies
3
* Prerequisite(s): (PHIL 2050 or PHIL 205H or PHIL 205G or instructor approval) and University Advanced Standing

For students majoring in humanities-related disciplines and other students interested in the academic study of religion. Teaches methodological approaches and critical thinking strategies in the study of religion. Explores various disciplines in their approaches to religious belief and practice. Includes the study of such thinkers as David Hume, Immanuel Kant, Friedrich Schleiermacher, Rudolf Otto, William James, Ludwig Feuerbach, Soren Kierkegaard, Max Weber, Emile Durkheim, John Hick, and Rene Girard.

RLST 3660R (Cross-listed with: PHIL 3660R)
Issues in Religious Studies
3
* Prerequisite(s): (PHIL 2050 or PHIL 205H or PHIL 205G or instructor approval) and University Advanced Standing

For students majoring in humanities-related disciplines and other students interested in the academic study of religion. Addresses specific topics and theoretical approaches related to religious studies. Topics may include religion and violence, religion and public discourse, religious ritual, etc. Subject matter varies by semester and is repeatable for a total of 9 hours of credit.

RLST 367G (Cross-listed with: PHIL 367G)
Engaging Religious Diversity
1 to 3
* Prerequisite(s): University Advanced Standing

Explores how religious communities engage one another and examines the implications of these interactions for religious conflict, spiritual identity, and the role of religion in societal contexts. Employs the tools from diverse disciplines to study the phenomenon of religious encounter in both historical and contemporary contexts. Investigates theories of religious diversity, American religious history, interreligious leadership practices, and narrative encounters.

RLST 3680 (Cross-listed with: PHIL 3680)
Interreligious Studies Practicum
3
* Prerequisite(s): University Advanced Standing

* Corequisite(s): PHIL 367G or RLST 367G

Engages religious, spiritual, and secular diversity through experiential learning opportunities. Explores how religious and worldview diversity affects the ethical, social, civil, and personal dimensions of the human experience. Provides opportunities for students to apply the theories and principles studied in the other Interreligious Studies Certificate courses.

Russian (RUS)

RUS 1010
Beginning Russian I
4

Offers an introduction to basic Russian. Uses various methods of instruction that focus on the development of functional competence in listening, speaking, reading, and writing. Provides comprehensive explanations of basic Russian grammar along with structural practice for building language accuracy. Lab access fee of $10 applies.

RUS 1020
Beginning Russian II
4

* Prerequisite(s): Students need equivalent knowledge of RUS 1010

Offers a continuation of basic Russian. Uses various methods of instruction that focus on the development of functional competence in listening, speaking, reading, and writing. Provides comprehensive explanations of basic Russian grammar along with structural practice for building language accuracy. Lab access fee of $10 applies.

RUS 115R
Russian Conversation I
1

Offers novice Russian speakers opportunities to enhance their speaking proficiency in the target language by focusing on oral verbal production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, and sharpen listening comprehension for natural conversational flow. Contrasts with all other first year courses which must strive to produce mastery of the whole range of language acquisition components, including writing, grammar, etc. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of speech opportunities and defusing concern for such matters as spelling, etc. Increases mastery of lexical items through increased frequency of oral usage. May be repeated for a maximum of 3 credits toward graduation.

RUS 135R
Russia in the Headlines
1

Explores current issues in Russian headlines. Explains cultural, historical, political and social factors that contribute to positions taken by current Russian leaders. May be repeated for a maximum of 3 credits toward graduation.
RUS 2010 Intermediate Russian I 4
* Prerequisite(s): Students need equivalent knowledge of RUS 1020

Offers a continuation of basic Russian. Reviews and builds additional skills from 1000-level language courses. Uses various methods of instruction that focus on the development of functional competence in listening, speaking, reading, and writing. Introduces authentic texts and provides discussions based on reading. Provides comprehensive explanations of basic Russian grammar along with structural practice for building language accuracy. Lab access fee of $10 applies.

RUS 202G Intermediate Russian II 4
* Prerequisite(s): Students need equivalent knowledge of RUS 2010

Studies fourth-semester conversational Russian that is used in daily settings. Includes culture study, speaking, listening, reading, and writing. Emphasizes conversation in real life situations. Uses the Natural and Total Physical Response teaching methods. Completers should be able to converse enough to visit or work in a Russian speaking country. Lab access fee of $10 applies.

RUS 215R Russian Conversation II 1
* Prerequisite(s): Students should have equivalent knowledge of RUS 202G

Offers lower division / novice Russian speakers opportunities to enhance their speaking proficiency in the target language by focusing on oral verbal production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, sharpen listening comprehension, and develop conversational strategies such as circumlocution and managing a conversation with useful expressions for starting a conversation, gaining time to think, helping the other speaker, seeking agreement, etc. Contrasts with all other first year courses which must strive to produce mastery of the whole range of language acquisition components, including writing, grammar, etc. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of speech opportunities and defusing concern for such matters as spelling, etc. Increases mastery of lexical items through increased frequency of oral usage. May be repeated for a maximum of 3 credits toward graduation.

RUS 266G Introduction to Russian Culture 3
* Prerequisite(s): ENGL 1010 or ENGH 1005

Studies Russian culture (988-1900) within a historical, cultural, thematic, and aesthetic context.

RUS 3030 Russian Conversation and Composition I 3
* Prerequisite(s): (RUS 202G or instructor approval) and University Advanced Standing

Explores production skills [speaking and writing], reviews and expands lexical depth and advances mastery of Russian grammar. Examines contemporary Russian culture topics through studying a variety of Russian sources: readings, film, lecture, individual research, etc. Analyzes topics through active class discussion in Russian. Conducted entirely in Russian.

RUS 3040 Russian Conversation and Composition II 3
* Prerequisite(s): (RUS 202G or instructor approval) and University Advanced Standing

Explores communicative skills in Russian. Provides opportunity for students to improve language production through extensive oral and written instruction and study of selected literary and cultural texts. Advances mastery of Russian grammar while emphasizing production skills of speaking and writing. Prepares students to participate fully in subsequent advanced courses. All course work conducted in Russian.

RUS 3050 Advanced Russian 3
* Prerequisite(s): It is recommended that students have either taken RUS 202G, had at least one year residency in a Russian-speaking country, or instructor approval

Designed for non-native Russian speakers, who, as a result of foreign residency or similar exposure to the language, have attained a fairly good mastery of basic Russian. Targets major grammatical concepts with a focus on oral proficiency development. Overviews Russian culture and gives an introduction to Russian literature. Lab access fee of $10 applies.

RUS 3200 Business Russian 3
* Prerequisite(s): RUS 3050 and University Advanced Standing

Teaches Russian business terminology and prepares students to take the Business Russian Proficiency Tests sponsored by the Russian Chamber of Commerce.

RUS 3520 Russian Culture and Civilization 3
* Prerequisite(s): (RUS 3050 or equivalent) and University Advanced Standing

Explores chronologically the evolution and development of Russia, and a multitude of aspects that construct Russian national identity. Completers should acquire an understanding of contemporary issues, ethnic and economic development of Russia, as well as historical interdependence with other nations. Presentations and class instructions conducted entirely in Russian.

RUS 3620 Nineteenth-Century Russian Literature and Its Film Adaptations 3
* Prerequisite(s): University Advanced Standing

Introduces Russian Realist literature from 1800 and explores how these classic texts have been adapted for film. Emphasizes literary and film analysis and criticism, explores literary history, develops skills in interpreting literary and filmic texts, and deepens understanding of Russian culture. All coursework conducted in English with select readings in Russian upon request.

RUS 366G Twentieth Century Russian Culture 3
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Explores the main Russian cultural influences of the 20th century. Examines the cultural, social and political movements developed from roughly 1880-1999 and considers the main figures who embody these movements. Focuses on individuals who exemplify cultural achievements in their given field or sphere of influence. Requires a research paper that focuses on an individual who contributed to the 20th century cultural milieu. Taught in English.

RUS 367G History of Russian Film 3
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and University Advanced Standing

Studies Russian cinema within the historical, cultural, thematic, and aesthetic context.

RUS 4050 Special Problems in Grammar Usage and Style 3
* Prerequisite(s): ([RUS 3030 and RUS 3040] or RUS 3050) and University Advanced Standing

Reviews Russian grammar focusing on problem areas. Explores grammar as deployed in different genres. Emphasizes writing in different styles. Identifies styles in readings and compose according to certain styles.

RUS 4110 Translation and Interpretation 3
* Prerequisite(s): (RUS 3050 or equivalent) and University Advanced Standing

Introduces translation as a discipline. Develops the special skills needed for translating and interpreting, and to achieve mastery of the contemporary spoken and written language. Discusses basic theory, principles and tools of translation. Employs the tools of translation: dictionaries, glossaries, grammars and computerized resources. Focuses on the extensive practice of translation and interpretation from English to Russian and from Russian to English.
Course Descriptions

RUS 416G
Post Soviet Russian Media and Film  
3  
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Examines visual media with special attention paid to the embedded cultural discourse that can only be understood with references to Russian history, language, and cultural identity. Explores Russia's depiction of and relationship with its past, present and future. Explores certain questions about visual media in post-Soviet society; the function of cinema in the new Russia; how cinema offers what reality cannot -- a goal for people to live up to at a time when politics and ideology fail to provide direction; how cinema articulates the reality of contemporary Russian life.

RUS 4170
Russia Under Putin  
3  
* Prerequisite(s): University Advanced Standing

Examines the social, political and cultural institutions that have informed the evolution of contemporary Russia following the collapse of the Soviet Union.

RUS 490R
Special Topics in Russian Studies  
3  
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Explores a variety of subjects relevant to the study of Russian language, literature and culture. Engages students in critical analysis and discourse. May be repeated for a maximum of 6 credits toward graduation.

Science Education  
(SCIE)

SCIE 4210
Science Teaching Methods I  
3  
* Prerequisite(s): University Advanced Standing

Explores foundational aspects of learning science and how this intersects with the nature of science in secondary schools. Includes introductions into state science standards, best methods of engaging learners, how to generate inclusive science learning environments, and promote discourse and collaboration in the service of greater student learning.

SCIE 4220
Teaching Methods in Science II  
3  
* Prerequisite(s): SCIE 4210 and University Advanced Standing

Examines instructional methods and curriculum for teaching science in the secondary school. Includes developing, adapting, evaluating, and using strategies and materials for teaching biological and physical sciences, appropriate both to the special needs of the learners and the special characteristics of science discipline.

SLSS 1000
University Student Success  
3  
* Prerequisite(s): Appropriate reading skills

Introduces and integrates new students to the UVU community, both academically and socially. Teaches strategies for academic success, such as critical thinking skills, time and financial management, and effective collaboration techniques. Develops student awareness of campus resources and assists in exploring and establishing personal, academic, and career goals. Includes lectures, group interaction, online interaction with faculty and students, in class exercises, and projects which apply learning to real life situations.

SLSS 1050
Research Skills for Student Success  
1  

Introduces students to concepts of information literacy and academic research. Demystifies the information landscape and emphasizes critical evaluation and ethical use of a variety of information sources. Prepares students for college-level research.

SLSS 1070
Student Leadership and Civic Engagement I  
3  

Focuses on the nature of leadership, citizenship, and advocacy in a democracy. Provides an overview of leadership and civics as crucial to the success of any leader, including a student leader. May be repeated for a maximum of 8 credits toward graduation.

SLSS 1090
Power Learning Strategies  
3  

Introduces what successful college students do and invites students to begin implementing these research-based techniques and methods in their other courses. Focuses on developing a conceptual and strategic framework for effective learning at the college level. Includes attention to creating the conditions for effective learning, comprehension of academic texts, identifying and remembering key information, test preparation and test taking.
Course Descriptions

SLSS 1195
Speed Reading
2
For students with good reading skills who want to increase reading speed and flexibility while maintaining or increasing their level of comprehension. Also teaches methods of speed studying.

SLSS 1200
The 7 Habits of Highly Effective People
3
Provides the foundation for personal leadership by teaching fundamental principles of character and life-changing paradigms. Examines the personal and organizational components of effectiveness. Focuses on high leverage changes such as time management, communication skills, win/win negotiation, and principle-centered life choices. Prepares students for lifelong success. Includes highly interactive class discussions, application exercises, videos, and group work. May be delivered hybrid and/or online. Course fee of $40 applies.

SLSS 120H
The 7 Habits of Highly Effective People
3
Provides the foundation for personal leadership by teaching fundamental principles of character and life-changing paradigms. Examines the personal and organizational components of effectiveness. Focuses on high leverage changes such as time management, communication skills, win/win negotiation, and principle-centered life choices. Prepares students for lifelong success. Includes highly interactive class discussions, application exercises, videos, and group work. May be delivered hybrid and/or online. Course fee of $40 applies.

SLSS 120R
Testing Strategies for Educators
1
Provides prospective Elementary Education Majors an opportunity to acquire the study strategies and test taking skills necessary to pass examinations that allow them to be admitted into the education program and to receive state licensure. May be repeated for a maximum of 3 credits toward graduation.

SLSS 1400
Dimensions of Engaged Learning
1
Introduces students to theories and best practices related to engaged learning in higher education. Provides opportunities for students to collaborate, share ideas, and participate in common experiences.

SLSS 141R
University Forum
1
Encourages student participation in the academic and interactive life of UVU through attendance and critical reflection on select academic and scholarly events. Integrates students' classroom learning with topical events through exposure to scholars and practitioners on a wide range of issues and from a variety of perspectives. May be repeated for a maximum of 6 credits toward graduation. Graded credit/no credit.

SLSS 2100
Major and Career Exploration
3
For students who are undecided about their major or career goals. Provides students with the opportunity to interact with career professionals; understand how to access internship, career preparation, and placement resources at UVU; and integrates understanding of self with knowledge of majors, careers, and the world of work. Utilizes an appropriate decision-making model to identify possible major and career choices. Course fee of $25 for materials applies.

SLSS 2300
Leadership Mentoring II
3
Provides the ongoing and further development of the theoretical base and hands-on training in leadership and mentoring techniques for peer mentors, and also assists them in further exploring and developing their own learning skills and strategies, and methods for mentoring these skills in others. Explores higher cognitive application and analysis of teaching/facilitating learning as a form of leadership.

SLSS 240R
Mentoring Leadership Practicum
2
Provides the theoretical base and hands-on training in leadership and mentoring techniques as well as an understanding of and ability to apply the UVU Student Core Leadership Competencies. Assists student leaders in further developing their own self-awareness, learning skills and strategies, and explores methods for facilitating these in others. Provides an avenue for student leadership program administrators to facilitate goal development, fulfillment and performance among student leaders and the individuals they serve. Emphasizes building relationships with students, teaching life skills and learning strategies, and guiding students through the college experience. Repeatable for a maximum of 8 credits towards graduation.

SLSS 2500
Leader--Strengths-Based Leader/Coach
3
Advances the study and practice of personal leadership by focusing on research-based character strengths. Uses strengths-based inquiry and assessment, identifies and examines character strengths as they relate to optimal functioning, well-being, and personal leadership (leadership of self and others). Draws upon the theories of positive leadership, positive paradigms and practices to develop a strengths-based core that they can transfer to diverse situations and a wide array of roles. Course fee of $10 applies.

SLSS 281R
Internship
1 to 8
* Prerequisite(s): Department Approval
* Corequisite(s): SLSS 2100 recommended

SLSS 3200
Leader--Teacher and Mentor
3
Provides concurrent theoretical and engaged learning experiences that invite students to explore the notion of leader as an effective facilitator of learning and as a coach for self and others. Engages a broad range of current academic literature exploring relevant intra- and interpersonal leadership principles and their interactions within micro and macro level settings. Develops adaptable philosophical and practical toolkit to more effectively navigate within and across multiple settings as a mentor, teacher, and coach to self and others.

SLSS 402G
Global Professionalization
3
* Prerequisite(s): University Advanced Standing

Underscores UVU's commitment to valuing global and intercultural opinions, backgrounds, traditions, perspectives, and experiences. Fosters an intercultural learning curriculum and an understanding of and an appreciation for, a variety of cultural perspectives and experiences is an essential element of higher education. Invites learners to move away from the view of "difference as deficiencies" which continues to be prevalent in society. Invites learners to become increasingly aware of the value and strength of diversity and to be more reflective of each person's role within education and society in general. Explores a growing body of literature and experience that implies a demanding personal and professional commitment. Examines deeper understanding that enhances learners' cultural awareness and prepare them for future employment in global and intercultural settings.
Sociology (SOC)

**SOC 1010**
*Introduction to Sociology*
3
Studies and compares social groups and institutions and their inter-relationships. Includes culture, socialization, deviance, stratification, race, ethnicity, social change, and collective behavior.

**SOC 1020**
*Modern Social Problems*
3
Studies and analyzes modern social problems such as crime, delinquency, family dysfunctions, and inequality and exploitation of people in contemporary society. Class requires volunteer experience in community agencies.

**SOC 107G**
*Multicultural Societies*
3
Examines the benefits and challenges of diversity in the United States. Explores history and life experiences of people from various racial and ethnic groups. Provides a forum for constructive interaction among people of different racial, ethnic, social, economic, and religious backgrounds.

**SOC 1200**
*Sociology of the Family*
3
Discusses the family in the context of society and its seven sociological institutions: family, media, government, economy, technology, education, and religion. Examines how changes in these institutions have facilitated many changes in the structure and function of the modern family. Examines traditional, current, and anticipated definitions of the family using core sociological theory and research tools. Evaluates cultural influence on the family. Focuses on strengthening marriages at the levels of dating, mate selection, marriage, newly wedded adjustment, parenting, finance, proactive family maintenance, and elderly family experiences. Emphasizes the application of one's own life and family experiences while maintaining scientific rigor and critical awareness.

**SOC 2370**
*Sociology of Gender*
3
*Prerequisite(s): ENGL 1010 or ENGL 1005 with a C+ or higher*
Examines sociological perspectives on gender roles globally. Addresses the effect of social construction of gender roles in various cultures around the world. Investigates how roles have changed over time and the consequences of these changes to broader societal norms globally and in the United States.

**SOC 263G**
*Race and Minority Relations*
3
*Prerequisite(s): ENGL 2010 or ENGL 2005 with a C+ or higher*
Studies ethnic and racial minority groups and the development of formal and informal relationships shared by these groups and the majority group. Explores the roles and origins of these groups and the concepts of prejudice, ethnic inequalities, current minority group movements, cross-cultural issues, economic, political, and educational aspects of majority-minority relations.

**SOC 275R**
*Survey of Current Topics*
1 to 3
*Prerequisite(s): ANTH 101G or PSY 1010 or SOC 1010 and ENGL 1010 or ENGL 1005 with a C+ grade or higher*
Presents selected topics in Sociology. Approaches subjects from a cross-disciplinary perspective. Requires a project demonstrating competency in the specific topic. May be repeated for nine credits toward graduation.

**SOC 3030**
*Social Research Methods WE*
3
*Prerequisite(s): PSY 3110 (statistics) with a C- or higher and University Advanced Standing*
Teaches how to conduct social science research. Introduces different research methods in social sciences, including experiments, surveys, field research, and unobtrusive research. Covers the following topics: steps in scientific research, the ethics of social research, research design, the logic of sampling, and strengths and limitations of each type of data collection method.

**SOC 3400**
*Sociology of Religion*
3
*Prerequisite(s): ENGL 2010 with a C+ or higher, SOC 1010, and University Advanced Standing*
Examines religion from a sociological perspective. Analyzes religion as a social phenomenon. Discusses religious organizations, religion and politics, and religion and social class.

**SOC 3430**
*Sociology of Education*
3
*Prerequisite(s): ENGL 2010 with a C+ or higher, SOC 1010, and University Advanced Standing*
For students who desire a better understanding of United States and world education systems. Examines and investigates educational trends and issues such as private vs. public systems; dropout rates; desegregation; student achievement/failure; education policies; race; class; gender issues; the 'Hidden Curriculum'; and education reform using Sociological theory and empirical research.

**SOC 3460**
*Political Sociology*
3
*Prerequisite(s): ENGL 2010 with a C+ or higher, SOC 1010, and University Advanced Standing*
Explores the distribution of political power at the national and international levels from a variety of theoretical perspectives. Pays particular attention to the power wielded by international media conglomerates and the influence of international institutions such as the World Trade Organization, the World Bank, and the International Monetary Fund.
SOC 3501
Social Psychology
3
* Prerequisite(s): SOC 1010 and University Advanced Standing

Examines individuals' thoughts, feelings, and behaviors in social contexts. Analyzes human behaviors from a sociological perspective. Includes the history of sociological social psychology, perspectives and research methods in sociological social psychology, the social psychology of stratification, self and identity, socialization over the life course, social psychology of deviance, mental health and illness, social attitudes, sociology of emotions and relationships, and collective behavior.

SOC 3510
Sociology of Work and Occupations
3
* Prerequisite(s): ENGL 2010 with a minimum C+ grade, SOC 1010, and University Advanced Standing

Examines work and occupations in historical and contemporary contexts. Examines current employment patterns and trends, the nature of labor markets and jobs, the gendered arrangements of paid and unpaid work, the organization and management of work. Explores transformations in occupational settings resulting from changes in economy and labor market. Focuses on the macro level (the effects of advancements in technology, bureaucratization and unionization on the division of labor), the micro-level (job satisfaction and alienation), and on the interface between macro and micro levels (job prestige, rewards, effects of ethnicity, age, and other characteristics).

SOC 3520 (Cross-listed with: ENST 3520)
Environmental Sociology
3
* Prerequisite(s): SOC 1010 and ENGL 2010 with a C+ grade or higher and University Advanced Standing

Explores in detail several different approaches to understanding the social causes of and solutions to environmental degradation. Discusses the development of a wide variety of theory-based critiques of various social institutions (e.g., economic, political, religious) and how these institutions' values can create and perpetuate unsustainable practices.

SOC 3560
Sociology of Deviance
3
* Prerequisite(s): ENGL 2010 with a C+ or higher, SOC 1010, and University Advanced Standing

Examines the strengths and weaknesses of several different definitions of deviance. Explains deviant behavior from a variety of theoretical perspectives and summarizes the existing data on several different forms of deviance, i.e., individual violations of social mores, street level crime, corporate crime, and crimes committed by nation states.

SOC 3690
Internet and Society
3
* Prerequisite(s): (ENGL 1010 or ENGH 1005), SOC 1010, and University Advanced Standing

Traces the history of new media through a sociological approach. Utilizes sociological theories of mass media and new media, (internet, smartphones, social media, etc.) and their impact on identities and institutions. Refers to sociological theories created in the pre-internet era – such as symbolic interactionism – to explain the pervasive presence of new media in society as well as our use of them.

SOC 3700
Social Inequality
3
* Prerequisite(s): (ENGL 2010 with a C+ or higher), SOC 1010, and University Advanced Standing

Studies social structure, culture, environment (urban/rural axis), inequality, and poverty in American Society. Examines Spanish Harlan, Detroit, Appalachia, and the Bitterroot Valley of Montana.

SOC 375G
Sociology of Aging
3
* Prerequisite(s): University Advanced Standing

Explores the social aspects of aging at the personal, group, and larger social levels of society including the social implications of aging, the theories of aging, as well as formal and informal support of medical care, housing, and well-being of elderly persons. Includes the study of the identify the biological processes of aging and its impact on the roles and relationships elderly person experience in the later stages of life. Emphasizes the individual's experience in the context of national and global demographic trends, cultural and ethnic diversities and economic realities across the classes and across political boundaries.

SOC 3800
Animals and Society
3
* Prerequisite(s): ENGL 2010 with a C+ or higher, SOC 1010, and University Advanced Standing

Examines the roles that non-human animals play in human societies. Utilizes sociological approaches to study human-animal relationships and to critically evaluate the ideologies which justify these relationships. Pays particular attention to human relationships in North America to domestic pets, livestock, and wildlife.

SOC 3850
Rural Life--Global and Local
3
* Prerequisite(s): ENGL 2010 with a C+ or higher, SOC 1010, and University Advanced Standing

Introduces rural life across the globe. Discusses the views of agrarian writers and thinkers. Explores rural values, rural communities, rural race relations, and rural poverty. Evaluates how the rural perspective provides a platform for critique of modern societal transformations in the twentieth and early twenty-first centuries.

SOC 4000
Classical Social Theory
3
* Prerequisite(s): (ENGL 2010 with a minimum C+ grade), SOC 1010, and University Advanced Standing

Examines the contributions of key theorists such as Durkheim, Weber, Marx, DuBois, and Addams to the development of contemporary sociology. Applies key theoretical concepts and frameworks created and used by classical sociologists to current and historical social issues.

SOC 4020
Survey Research Design
3
* Prerequisite(s): University Advanced Standing

Teaches methods of conducting survey research. Explains how to construct, validate, and administer surveys, how to conduct interviews, how to report data, and how to interpret findings.

SOC 4100
Contemporary Social Theory WE
3
* Prerequisite(s): SOC 1010 and SOC 4000 and (ENGL 2010 with a C+ or higher) and University Advanced Standing

Examines major contemporary sociological theories that provide the basis for sociological research and the interpretation of social processes. Explores the nature of sociological theory and theory-building to understand the difference and connection between theoretical, methodological, and empirical works in sociology. Covers influential theoretical frameworks, such as structural functionalism, Frankfurt School, exchange and rational choice theories, symbolic interactionism, phenomenology, poststructuralism, postmodernism, feminism, and world systems theories.
SOC 4400  
Social Change  
3  
* Prerequisite(s): ENGL 2010, SOC 1010, and University Advanced Standing

Analyzes societies and their component parts. Evaluates various endogenous and exogenous forces which bring about social change. Examines historical and contemporary processes of social change and stratification. Explores current social conditions and applicable methods of social change. Offered once every other year.

SOC 475R  
Current Topics in Sociology  
1 to 3  
* Prerequisite(s): ENGL 2010 with a minimum grade of C+, SOC 1010, and University Advanced Standing

Presents selected topic in Sociology and will vary each semester. Requires a project demonstrating competency in the specific topic. May be repeated 3 times with different topics.

SOC 490R  
Independent Studies  
1 to 3  
* Prerequisite(s): Instructor approval, department chair approval, and University Advanced Standing; for Behavioral Science Bachelor Degree students only

For qualified students who wish to undertake a well-defined project or directed study related to an area of special interest. Requires individual initiative and responsibility. Includes limited formal instruction and faculty supervision. Projects may include writing a publishable paper, passing a competency exam, producing an annotated bibliography, oral presentation, or other options as approved by instructor. May be repeated for a maximum of 6 credits.

Spanish (SPAN)  

SPAN 1010  
Beginning Spanish I  
4  
* Prerequisite(s): Students need equivalent knowledge of SPAN 1010

Emphasizes listening, speaking, and writing skills along with basic grammar, vocabulary, and verb conjugations, all within the cultural context of modern Hispanic societies. Uses an eclectic method of instruction, emphasizing conversational exchanges. Requires weekly lab. Lab access fee of $10 applies.

SPAN 1020  
Beginning Spanish II  
4  
* Prerequisite(s): Students need equivalent knowledge of SPAN 1010

Includes the continuation of study of grammar and language concepts, literature, and cultural readings. Uses an eclectic method of instruction, emphasizing conversational exchanges. Conversational lab required. Computer and multimedia lab encouraged. Lab access fee of $10 applies.

SPAN 115R  
Spanish Conversation I  
1

Offers novice Spanish speakers opportunities to enhance their speaking proficiency in the target language by focusing on oral verbal production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, and sharpen listening comprehension for natural conversational flow. Contrasts with all other first year courses which must strive to produce mastery of the whole range of language acquisition components, including writing, grammar, etc. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of speech opportunities and defusing concern for such matters as spelling, etc. Increases mastery of lexical items through increased frequency of oral usage. May be repeated for a maximum of 3 credits toward graduation.

SPAN 1500  
Spanish Travel Study  
3

Introduces students to a Spanish-speaking foreign country for a minimum of 10 days of intensive language and culture study. Course entails several meetings prior to departure and at least one after the return home to facilitate observation and analysis of data to be gathered on the tour. An organized presentation of that data will be contained in a multimedia project due no later than one month after tour.

SPAN 2010  
Intermediate Spanish I  
4

* Prerequisite(s): Students need equivalent knowledge of SPAN 1020

Reviews and builds upon the grammar, reading, writing, and conversation skills learned in the first year courses. Introduces readings and discussions on the history, culture, and literature of the Spanish speaking world, maintaining a focus on oral proficiency. Lab access fee of $10 applies.

SPAN 202G  
Intermediate Spanish II  
4

* Prerequisite(s): Students need equivalent knowledge of SPAN 1020

Emphasizes reading, writing, and conversation skills through studies in literature. Media reading labs are available to help reading comprehension. Requires oral and written response. Lab access fee of $10 applies.

SPAN 203G  
Spanish for Heritage Speakers  
4  
* Prerequisite(s): Must be a heritage Spanish speaker (heritage speakers are individuals who speak their first language, which is not English, at home).

For heritage speakers of Spanish with little knowledge of grammar and no formal training in the language. Emphasizes and develops the oral skills students already possess as well as the four language skills: listening, speaking, reading, and writing. Meets Global Intercultural requirements.

SPAN 2100  
Spanish for Social Workers  
4  
* Prerequisite(s): SPAN 2100 or SPAN 202G or SPAN 3030 or SPAN 3040 or SPAN 3050 or Department Approval

Teaches language terminology specific to the Spanish language in the field of Social Work. Examines the cultural issues present in the interactions with Spanish-speaking clients. Prepares students to work with Spanish-speaking clients in future careers in social work. Reviews and builds upon the grammar, reading, writing, and conversation skills learned in the first years courses.

SPAN 2110  
Spanish for Nursing  
4  
* Prerequisite(s): SPAN 2110 or SPAN 202G or SPAN 3030 or SPAN 3040 or SPAN 3050 or Department Approval

Teaches Spanish-language terminology specific to the field of nursing. Examines the cultural issues present in the interactions with Spanish-speaking patients. Prepares students to work with Spanish-speaking patients in future careers in nursing. Reviews and builds upon grammar, reading, writing, and conversation skills learned in previous courses.

Social Science (SOSC)  

SOSC 291H  
National Honors Study Topic  
3

Sponsored and promoted by Phi Theta Kappa, national organization. Designed for an intellectual pursuit of National Honors Study topic. Discussion topic changes annually. Deals with current international issues that impact society and the quality of life. Students research and discuss the topic from several different perspectives and develop a knowledge base from which to formulate their own ideas.
SPAN 215R
Spanish Conversation II
1
* Prerequisite(s): Students should have equivalent knowledge of SPAN 1020

Offers lower division / novice Spanish speakers opportunities to enhance their speaking proficiency in the target language by focusing on oral verbal production. Teaches how to improve authentic pronunciation, reduce errors in authenticity of language structure, generate thought in the target language spontaneously as a substitute for translation, sharpen listening comprehension, and develop conversational strategies such as circumlocution and managing a conversation with useful expressions for starting a conversation, gaining time to think, helping the other speaker, seeking agreement, etc. Contrasts with all other first year courses which must strive to produce mastery of the whole range of language acquisition components, including writing, grammar, etc. Facilitates lowering the affective filter when conversing in the target language by increasing the frequency of speech opportunities and defusing concern for such matters as spelling, etc. Increases mastery of lexical items through increased frequency of oral usage. May be repeated for a maximum of 3 credits toward graduation.

SPAN 3030
Spanish Conversation and Composition I
3
* Prerequisite(s): (SPAN 202G or equivalent) and University Advanced Standing

Explores communicative skills in Spanish. Provides opportunity for students to improve language production through extensive oral and written instruction and study of selected literary and cultural texts. Reviews grammar topics such as verb tenses, use of adjectives, and object pronouns.

SPAN 3040
Spanish Conversation and Composition II WE
3
* Prerequisite(s): (SPAN 202G or equivalent) and University Advanced Standing

Explores communicative skills in Spanish. Provides opportunity for students to improve language production through extensive oral and written instruction and study of selected literary and cultural texts. Reviews grammar topics such as the subjunctive, relative clauses, and future and conditional tenses.

SPAN 3050
Advanced Spanish WE
3
* Prerequisite(s): It is recommended that students have passed SPAN 202G, have had one year residency in a Spanish-speaking country, or instructor approval

Overviews the basic grammar of Spanish. Emphasizes major concepts including mastery of verb forms, object pronouns, preterite vs. imperfect, use of the subjunctive, etc., both orally and in writing. Intended for non-native Spanish speakers who have attained competency in basic Spanish as a result of foreign residency or similar exposure to the language.

SPAN 3060
Oral Proficiency
1
* Prerequisite(s): University Advanced Standing

* Prerequisite(s) or Corequisite(s): (SPAN 3030 and SPAN 3040) or SPAN 3050

Designed to help students understand the standards for oral proficiency as defined by the American Council on the Teaching of Foreign Languages (ACTFL) and to improve their oral proficiency skills. Is required of all Spanish and Spanish Education majors, who should achieve minimally the Intermediate High level as per the ACTFL guidelines. Requires Oral Proficiency Interview (OPI).

SPAN 3116
Pop Culture-Film/Media/Entertainment
3
* Prerequisite(s): High-school students have to pass the AP Spanish Language or AP Spanish Literature & Culture test with a 3 or higher

This course is part of the State of Utah Spanish Bridge Program and it will be taught only in high schools and for high school students. Not to be taught on college campus for university students. Explores works of literature and film in Spanish to analyze contemporary societal issues. Emphasizes literary analysis and criticism. Develops knowledge of literary history, skills in interpreting literary texts, and deepens understanding of the Spanish language.

SPAN 3118
Literature and Film-Contemporary issues
3
* Prerequisite(s): High school students have to pass the AP Spanish Language or AP Spanish Literature & Culture test with a 3 or higher

This course is part of the State of Utah Spanish Bridge Program and it will be taught only in high schools and for high school students. Not to be taught on college campus for university students. Explores works of literature and film in Spanish to analyze contemporary societal issues. Emphasizes literary analysis and criticism. Develops knowledge of literary history, skills in interpreting literary texts, and deepens understanding of the Spanish language.

SPAN 3200
Business Spanish
3
* Prerequisite(s): SPAN 3050 and University Advanced Standing

Teaches language structures and terminology specific to Spanish language in the field of Business. Examines the cultural issues present in the interactions with Spanish-speaking clients. Prepares students to work with Spanish-speaking clients in future careers in business, marketing, banking or translation/interpreting. Lab access fee of $10 applies. Canvas Course Mats $44/Cengage applies.

SPAN 3220
Pronunciation Phonetics and Phonology
3
* Prerequisite(s): SPAN 3050 and University Advanced Standing

Explores comparatively the articulatory system of English and Spanish, not only to help students identify and correct anomalies or inaccuracies in their own speech or the speech of others, but also to strengthen their understanding of the nature of oral speech. Provides extensive laboratory involvement for practice and analysis.
Course Descriptions

SPAN 3310  
Spanish for Healthcare Professionals  
3  
* Prerequisite(s): (SPAN 3030 and SPAN 3040) or SPAN 3050, and University Advanced Standing  
Teaches language structures and terminology specific to Spanish language in the field of healthcare. Examines the cultural issues present in the interactions with Spanish-speaking patients. Prepares students to work with Spanish-speaking patients in future careers in medicine, nursing, or translation/interpretation.

SPAN 3320  
Spanish for Mental Health Professionals  
3  
* Prerequisite(s): (SPAN 3030 and SPAN 3040) or SPAN 3050, and University Advanced Standing  
Teaches language structures and terminology specific to Spanish language in the field of Psychology. Examines the cultural issues present in the interactions with Spanish-speaking patients/clients. Prepares students to work with Spanish-speaking patients/clients in future careers in healthcare, social work, education, or translation/interpreting.

SPAN 3340  
Spanish for Tourism and Hospitality Management  
3  
* Prerequisite(s): (SPAN 3030 and SPAN 3040) or SPAN 3050 and University Advanced Standing  
Teaches language terminology specific to Spanish language in the field of Tourism and Hospitality Management. Examines the cultural issues present in the interactions with Spanish-speaking clients. Prepares students to work with Spanish-speaking clients in future careers in the tourist and hospitality industry.

SPAN 3350  
Spanish for Legal Professions  
3  
* Prerequisite(s): (SPAN 3030 and SPAN 3040) or SPAN 3050 and University Advanced Standing  
Teaches language structures and terminology specific to Spanish language in the legal field. Explores political and legal institutions in the Spanish-speaking countries. Examines the cultural issues present in the interactions with Spanish-speaking clients. Prepares students to work with Spanish-speaking clients in future careers in law, administration and government, business, translation and interpreting.

SPAN 351G  
Culture and Civilization--Spain  
3  
* Prerequisite(s): (SPAN 3050 or equivalent) and University Advanced Standing  
Explores chronologically the cultural formation and development of Spain. Completers should acquire an understanding of the ethnic development and linguistic history of Spain. Presentations and class instruction conducted entirely in Spanish.

SPAN 352G  
Culture and Civilization--Spanish America  
3  
* Prerequisite(s): (SPAN 3030 and SPAN 3040) or SPAN 3050 and University Advanced Standing  
Explores chronologically the cultural formation and development of Spanish America. Completers should acquire an understanding of the ethnic development and linguistic history of Spanish American countries and societies. Presentations and class instruction conducted entirely in Spanish.

SPAN 3610  
Spanish Peninsular Literature to 1800  
3  
* Prerequisite(s): ([SPAN 3030 and SPAN 3040] or [SPAN 3050 or equivalent]) and University Advanced Standing  
Introduces chronologically to 1800 representative Spanish authors. Emphasizes literary analysis and criticism. Completers should develop knowledge of literary history, acquire skills in interpreting literary texts, and deepen understanding of the Spanish language. Presentations and class instruction conducted entirely in Spanish.

SPAN 3620  
Spanish Peninsular Literature from 1800  
3  
* Prerequisite(s): (SPAN 3030 and SPAN 3040) or SPAN 3050, and University Advanced Standing  
Introduces chronologically from 1800 representative Spanish authors. Emphasizes literary analysis and criticism. Completers should develop knowledge of literary history, acquire skills in interpreting literary texts, and deepen understanding of the Spanish language. Presentations and class instruction conducted entirely in Spanish.

SPAN 3630  
Spanish American Literature to 1880  
3  
* Prerequisite(s): [(SPAN 3030 and SPAN 3040) or SPAN 3050] and University Advanced Standing  
Introduces chronologically to 1880 representative Spanish American authors. Emphasizes literary analysis and criticism. Completers should develop knowledge of literary history, acquire skills in interpreting literary texts, and deepen understanding of the Spanish language. Presentations and class instruction conducted entirely in Spanish.

SPAN 3640  
Spanish American Literature from 1880  
3  
* Prerequisite(s): [(SPAN 3030 and SPAN 3040) or SPAN 3050] and University Advanced Standing  
Introduces chronologically from 1880 representative Spanish American authors. Emphasizes literary analysis and criticism. Completers should develop knowledge of literary history, acquire skills in interpreting literary texts, and deepen understanding of the Spanish language. Presentations and class instruction conducted entirely in Spanish.

SPAN 3690  
Spanish and Latin American Cultures through Cinema  
3  
* Prerequisite(s): SPAN 3050 OR (SPAN 3030 and SPAN 3040), and University Advanced Standing  
Introduces contemporary issues in the cultures and societies of Latin America and Spain by analyzing, interpreting and critically reading film and visual texts. Provides opportunities to improve students’ proficiency in Spanish through oral and written interaction and production. Conducted entirely in Spanish.

SPAN 380R  
Community Engagement in Spanish  
3  
* Prerequisite(s): [(SPAN 3030 and SPAN 3040) or SPAN 3050 or instructor approval] and University Advanced Standing  
Offers students the opportunity to participate in projects and with organizations in the local Hispanic community. Addresses the linguistic, cultural, historical, and socioeconomic concerns of the Spanish-speaking residents of Utah and surrounding counties. Requires regular activity, including volunteering, in local schools, clinics, social service agencies, or civic organizations. Repeatable for a maximum 6 hours credit toward graduation.
SPAN 4050
Topics in Grammar Usage and Style WE
3
* Prerequisite(s): [(SPAN 3030 and SPAN 3040) or SPAN 3050] with a grade of C or higher and University Advanced Standing

Reviews Spanish grammar focusing on problem areas. Explores grammar as deployed in different genres. Emphasizes writing in different styles. Lab access fee of $10 applies.

SPAN 4100
Teaching Spanish Grammar
3
* Prerequisite(s): Admission to a Secondary Education teacher licensure program or departmental approval; [(SPAN 3030 and SPAN 3040) or SPAN 3050] and University Advanced Standing
* Corequisite(s): LANG 4200 recommended

Enables prospective Spanish educators to acquire the strategies, methodology and techniques of how to present deductive and inductive principles of Spanish grammar. Discusses basic theory, principles and tools of Spanish linguistic issues. Includes extensive principle development and microteaching used as an assessment tool.

SPAN 4110
Introduction to Translation and Interpreting English-Spanish
3
* Prerequisite(s): (SPAN 3030 and SPAN 3040) or SPAN 3050; and it is highly recommended to take previously 6 credits from the Spanish for the Profession courses (Medical Spanish, Business Spanish, Legal Spanish, Spanish for Psychology, Spanish for Tourism, etc.)

Teaches basic concepts from Translation Studies. Provides practice on translation and interpreting for the English-Spanish language pair and describes professional opportunities in the language services industry. Includes class discussion, oral presentations, translation and interpreting practice, analysis of translations, reflections on recorded interpretations, and collaborative translation projects. Examines technologies used in translation workflows. Lab access fee of $10 applies.

SPAN 4120
Advanced Translation English-Spanish
3
* Prerequisite(s): SPAN 4110 and University Advanced Standing

Provides opportunities for Spanish/English translation of texts in different fields (for example, health, law, business, science and technology, agribusiness, etc.). Examines the characteristics and terminology used in specialized texts. Analyzes conventional differences between writing norms in different English- and Spanish-speaking countries. Identifies career opportunities in the language services industry and examines the technological competencies necessary to be competitive in the industry. Includes class discussion, textual analysis, translation practice, analysis of translations, presentations, collaborative translation projects, a service-learning project, and a portfolio.

SPAN 412R
Spanish for the Professions
3
* Prerequisite(s): (SPAN 3050 or departmental approval) and University Advanced Standing

Offers Medical Spanish, Legal Spanish, or Spanish for Tourism according to student demand. Focuses on the practical needs of students who seek careers in the applicable areas. Addresses the specialized vocabulary and communicative ability necessary for a professional in a bilingual English-Spanish or monolingual Spanish environment. Introduces interpretation in professional situations. May be repeated for a maximum of 6 credits toward graduation with different topics.

SPAN 4130
English-Spanish Interpreting
3
* Prerequisite(s): SPAN 4110 and University Advanced Standing

Teaches skills for interpreting (oral translation) in Spanish and English with an emphasis on the mode of dialogue or bilateral interpreting, while also teaching skills for simultaneous interpreting. Deepens understanding of key concepts related to interpreting and the profession of interpreter. Teaches more advanced skills for interpreting like discourse analysis and oratory skills, general interpreting strategies like synthesis and anticipation, and specific strategies for dialogue or bilateral interpreting. Emphasizes professional standards and self-monitoring. Includes class discussion, readings, interpreting practice, observation and analysis of practice, oral presentations, a research project, and engaged learning projects.

SPAN 4200
Advanced Business Spanish
3
* Prerequisite(s): SPAN 3200 and University Advanced Standing

Focuses on Spanish business terminology, documentation, case studies and transactions. Explores grammar in different genres, emphasizing composition in different writing styles. Prepares students to take the Advanced Business Certification test offered by the Chamber of Commerce of Madrid, Spain. Canvas Course Mats $44/Cengage applies.

SPAN 4310
Advanced Spanish for Healthcare Professionals
3
* Prerequisite(s): SPAN 3310 and University Advanced Standing

Teaches language structures and terminology specific to Spanish language in the field of healthcare. Examines the cultural issues present in the interactions with Spanish-speaking patients. Focuses on advanced topics, terminology and language structures not covered in Medical Spanish. Prepare students to work with Spanish-speaking patients in future careers in medicine, nursing, or translation/interpretation.

SPAN 4410
Spanish Linguistics
3
* Prerequisite(s): [(SPAN 3030 and SPAN 3040) or SPAN 3050] and University Advanced Standing

Provides a comprehensive introduction and overview of the different areas of Spanish Linguistics. Designed for students with a focus in Pedagogy, Business Spanish, Translation, Spanish for the Professions or Literature and Culture. Focuses on the core concepts of the various sub-fields of linguistics applied to Spanish: Phonetics and Phonology, Morphology, Syntax, Semantics, Sociolinguistics, the History of the Language, Dialectology and Pragmatics.

SPAN 460R
Topics in Hispanic Literature
3
* Prerequisite(s): SPAN 3610 or SPAN 3620 or SPAN 3630 or SPAN 3640 and University Advanced Standing

Addresses key texts representative of the development of genres, themes, or individual authors' works. Engages students in critical textual analysis. May be repeated for a maximum of six credits toward graduation with different topics.
STATISTICS (STAT)

STAT 1040 Introduction to Statistics 3
* Prerequisite(s): One of the following: MAT 1010 or MAT 1015 with a grade of C or better within the past two years; an ACT mathematics score of 23 (assuming the test has been taken within the last two years); appropriate placement by the Accuplacer test score
A quantitative literacy course with a statistical theme. Includes descriptive statistics, sampling, and inferential methods. Emphasizes problem solving and critical thinking. Canvas Course Mat $87/Macmillan applies.

STAT 1045 Introduction to Statistics with Algebra 5
* Prerequisite(s): One of the following: MAT 1010 or MAT 1015 with a grade of C or better within the past two years; an ACT mathematics score of 23 (assuming the test has been taken within the last two years); appropriate placement by the Accuplacer test score
A quantitative literacy course with a statistical theme. Includes descriptive statistics, sampling, and inferential methods. Emphasizes problem solving and critical thinking. Canvas Course Mat $87/Macmillan applies.

STAT 2040 Principles of Statistics 4
* Prerequisite(s): Within the past two years, MATH 1050 or MATH 1055 or MATH 1080 with a grade of C or higher or appropriate math placement test score.
Includes summarizing data, measures of central location, measures of variation, probability, mathematical expectation, probability distributions, sampling and sampling distributions, estimation, hypothesis testing, analysis of variance, regression analysis, and correlation. Canvas Course Mats of $66/Wiley applies.

STAT 2050 Introduction to Statistical Methods 4
* Prerequisite(s): Within the past two years, MATH 1050 or MATH 1055 or MATH 1080 with a grade of C or higher or appropriate math placement test score.
Is an introductory statistics course for statistics majors. Applies discrete and continuous probability distributions to real data sets. Teaches confidence intervals and hypothesis testing for both one and two sample problems. Covers introductory topics in experimental design, linear regression, bootstrapping, and categorical data analysis. Canvas Course Mats of $66/Wiley applies.

STAT 2060 Introduction to Statistical Computing 1
* Prerequisite(s) or Corequisite(s): STAT 2040 or STAT 2050, with a grade of C or higher; and University Advanced Standing
Familiarizes students with the SAS statistical software package. Teaches how to organize, input data, and be able to use reference books to figure out the appropriate way to run the analysis needed using SAS.

STAT 3000 Applied Mathematics for Statistical Methods 3
* Prerequisite(s): STAT 2040 or STAT 2050, with a grade of C or higher; and University Advanced Standing
Provides students with the mathematical background to complete upper division courses in applied statistical methods. Includes topics from calculus, linear algebra, mathematical statistics and introductory probability.

STAT 3040 Probability and Statistics for Engineering and the Sciences 3
* Prerequisite(s): (STAT 2040 or STAT 2050 and MATH 2210 each with a grade of C or higher) and University Advanced Standing
Introduces mathematical statistics for scientists and engineers. Includes counting techniques, random variables, expected values, joint and marginal distributions, point estimation, hypothesis testing, analysis of variance, and regression.
STAT 4400
Multivariate Analysis WE 3
* Prerequisite(s): MATH 2270 and STAT 4710, both with a grade of C or higher, and University Advanced Standing
Introduces multivariate data analysis. Covers inference on data arising from the multivariate normal distribution using MANOVA, principal component analysis, factor analysis, canonical correlation analysis, discriminant analysis, and cluster analysis. Uses statistical software throughout.

STAT 4500
Nonparametric Statistics 3
* Prerequisite(s): STAT 2040 or STAT 2050 with a grade of C or higher and University Advanced Standing
Introduces nonparametric statistical procedures to apply in situations when parametric statistics (usually based on normality) are not appropriate. Covers types of nonparametric analyses that includes one and two sample hypothesis tests, goodness-of-fit tests, contingency tables, block designs, and regression analysis.

STAT 4600
Statistical Process Control 3
* Prerequisite(s): STAT 2040 or STAT 2050 with a grade of C or higher and University Advanced Standing
Presents the theory and methods of quality monitoring including process capability, control charts, acceptance sampling, quality engineering, and quality design.

STAT 4710
Mathematical Statistics-Probability and Statistics 3
* Prerequisite(s): STAT 2040 or STAT 2050 with a grade of C or higher and University Advanced Standing
* Prerequisite(s) or Corequisite(s): MATH 2210 or MATH 221H
Introduces mathematical statistics including random variables, set theory, transformations, expectation, joint and marginal distributions, moment generating functions, and order statistics.

STAT 4720
Mathematical Statistics: Statistical Inference 3
* Prerequisite(s): STAT 4710 with a grade of C or higher and University Advanced Standing
Is a continuation of STAT 4710. Includes estimation, sufficiency, completeness, hypothesis testing, statistical inference with the normal distribution, and Bayesian statistics.

STAT 6010
Theory of Statistics I 3
* Prerequisite(s): Matriculation into the Mathematics Education, M.S. program or Matriculation into the Mathematics Graduate Certificate program, or approval of graduate program director
Emphasizes theoretical statistical inference. Includes concept sufficiency, theory of estimation, testing of statistical hypothesis, the Neyman-Pearson lemma, Bayesian inference, sequential testing, and large sample theory for inference.

STAT 6020
Theory of Statistics II 3
* Prerequisite(s): STAT 6010 with C or better
Emphasizes theoretical statistical inference. Includes concept sufficiency, theory of estimation, testing of statistical hypothesis, the Neyman-Pearson lemma, Bayesian inference, sequential testing, and large sample theory for inference.

Substance Use Disorder Counsel (SUDC)

SUDC 3430
Psychopharmacology for the Substance Use Disorder Counseling Field 3
* Prerequisite(s): Admission to the UVU SUDC program and University Advanced Standing
Addresses basic principles of nervous system function with emphasis on communication between nerve cells. Focuses on therapeutic drugs as well as drugs of abuse to include mechanisms of action and behavioral effects. Includes content on dynamics of addiction.

SUDC 3470
Dynamics of Addiction 3
* Prerequisite(s): Admission to the UVU SUDC program and University Advanced Standing
Explores processes contributing to development and maintenance of addiction. Addresses internal (genetics, motivation) and external (family dynamics, peer pressure) contributors. Includes issues related to drug policy, costs of addiction, and prevention/treatment of drug addiction.

SUDC 4300
Introduction to Substance Use Disorder Counseling 3
* Prerequisite(s): Admission to the UVU SUDC program and University Advanced Standing
Surveys concepts and practices of major therapeutic systems, with a focus on substance use disorder counseling. Introduces students to the major psychotherapeutic models of both individual and group counseling. Addresses basic counseling issues including ethics and professionalism. Develops skills in relationship development, interviewing, initial assessment and intake procedures.

SUDC 4400
Advanced Substance Use Disorder Counseling 3
* Prerequisite(s): Admission to the UVU SUDC program, completion of SUDC 4300 with a C- grade or higher, and University Advanced Standing
Expands concepts and practices of major therapeutic systems, with a focus on advanced substance use disorder counseling. Continues coverage of major psychotherapeutic models of both individual and group therapy. Elaborates on basic counseling issues including ethics and professionalism. Continues to develop skills in relationship development, interviewing, initial assessment, and intake procedures.

SUDC 4710
Introduction to Professional Development 2
* Prerequisite(s): Admission to the UVU SUDC program and University Advanced Standing
Defines the scope of practice and legal and ethical obligations of substance abuse counselors. Examines the knowledge, skills, attitudes, legal obligations, and limitations of practice of professional substance abuse counselors. Introduces the 12 core functions.

SUDC 4720
Advanced Professional Development 3
* Prerequisite(s): Admission to the UVU SUDC program, completion of SUDC 4710 with a C- grade or higher, and University Advanced Standing
Expands on professional issues in Substance Use Disorder Counseling. Focuses on the 12 core functions of substance abuse, ethics, theories of substance abuse, and theory and practice of individual and group counseling.
Land Surveying (SURV)

SURV 1020
Introduction to Surveying and Mapping WE 1
Provides an orientation to the field of Surveying and Mapping including Boundary Surveying, Geodesy, Forensic Surveying, Construction Surveying, Geographic Information Systems (GIS), and other types of surveys. Involves presentations by community/industry professionals encompassing the surveying and mapping occupations. Covers college success principles and practices for the Surveying and Mapping program. Lab access fee of $45 for computers applies.

SURV 1030
Fundamentals of Geodesy and Control Surveys 3
Explores the science of geodesy or the size and shape of the earth, involves Global Positioning Systems theory for computing a position on the earth using three-dimensional coordinate systems, reference coordinate systems, state plane coordinates, transformations, geoid datums, orthometric heights and leveling. Introduces basic properties and characteristics of the most common map projections. Explains principles and theories used to establish control surveys and survey networks based on geodesy. Introduces traverse, triangulation, and elevation adjustment computations along with random and systematic errors in measurement. Offers field application assignments of typical survey control networks using GPS and Total Stations to collect GPS data. Includes post processing coordinate transformation, creation, and report generation using the NGS OPUS system. Requires verifiable demonstration of field skills and techniques. Lab access fee of $45 applies.

SURV 1220
Remote Sensing and Photogrammetry 3
* Prerequisite(s): MAT 1010 or appropriate math placement score

SURV 1340
Fundamentals of Boundary Law 3
Explains the fundamental responsibilities of a land surveyor in recognizing, locating and creating land boundaries, including sequential and simultaneous conveyances, easements and reversions, riparian and littoral rights. Presents basic rules of evidence. Provides exposure to principles and procedures used to establish new boundaries and locate existing boundaries.

SURV 2010
Land History of America WE 3
Discusses how, what, and why certain countries, events, and individuals have significantly impacted the history of the lands of America. Describes how the contributions of the various inventions, instruments, individuals, conditions, and events impacted the lands of America. Identifies how current land conditions, policies, and laws in the State of Utah have been impacted by Utah land history. Lab access fee of $45 for computers applies.

SURV 2030
Geodesy 3
* Prerequisite(s): EGD 2400, MATH 1060 or EGD 1600 and 1610 or appropriate math placement score
Examines the science of geodesy. Includes size and shape of the earth, spherical and ellipsoidal geometry, the celestial sphere, and astronomical trigonometry. Involves Global Positioning Systems theory for calculating position on the earth using three-dimensional coordinate systems, reference coordinate systems, state plane coordinates, transformations, spheroid, ellipsoid, geoid datums, celestial sphere, orthometric heights and leveling. Covers basic properties and characteristics of the most common map projections with emphasis on the projections used in State Plane Coordinates such as Lambert Conformal, Universal Transverse Mercator (UTM). Exposes the student to survey applications of practical astronomy including time systems, astronomical azimuth, and Solar/Polaris observations and calculations. Lab access fee of $45 applies.

SURV 2100
Mapping From Field to Finish 3
* Prerequisite(s): EGD 1400, EGD 1040, or EGD 2400
Teaches how to identify, operate, and maintain common instrumentation used to collect field data including GPS, Total Stations, and Drones. Integrates survey field data, Geographic Information Systems (GIS) data, and Computer Aided Drafting (CAD) data to develop static and dynamic maps and plans often used by public and private entities. Demonstrates best practice field and office procedures and techniques commonly used by federal, state, and local governments and private industry. Explains potential field safety considerations, problems, and issues, as well as the development of a safety plan. Includes written and oral presentations. Lab access fee of $45 applies.
SURV 2310  Surveying US Public Lands  
3  
* Prerequisite(s): EGDT 1400, MATH 1060 or EGDT 1600 and 1610 or appropriate math placement score  
Studies U.S. Public Land Survey System (PLSS) as described in the current official Department of the Interior-Bureau of Land Management (BLM) Manual of Instructions for Surveying Public Lands with emphasis on federal, state, and other applicable laws, evidence, resurveys, and subdivision of sections. Covers a detailed study of general and special instructions, irregularities in subdivisions, lost and obliterated corners, single and double proportion methods, monumentation, riparian boundary laws and rights, hiatuses, mineral surveys, and official survey documents. Introduces Spanish and Mexican land grants, as well as state and national boundaries. Lab access fee of $45 for computers applies.

SURV 2320  Property Descriptions and Public Land Records  
3  
* Prerequisite(s): (ENGL 1010 or ENGH 1005) and EGDT 1400  
Involves analysis, interpretation, and writing of legal descriptions with proper form, controlling elements, metes-and-bounds, sectionalized land descriptions, easements, and rights-of-way. Discusses different types of descriptions, junior-senior rights in descriptions, latent & patent ambiguities, basis of bearing and interpretation, easements, and reversions. Applies practical exercises and case studies. Studies the responsibilities of the professional land surveyor regarding due diligence in searching public land records and performing applicable legal research. Examines public records and recording laws. Emphasizes title search to patent and includes zoning laws relating to land. Involves tour(s) of local record systems and/or public offices.

SURV 2350  Ethics and Liabilities for Surveyors  
2  
Teaches the code of ethics adopted by the Utah Council of Land Surveyors (UCLS). Explains meaning and attributes of professionalism along with the ethical, moral, and social responsibilities of professional surveyors. Includes model law standards, professional liability cases, and professional client relationships. Involves lecture, readings, case studies, and other media.

SURV 3010  Measurement Analysis and Adjustments  
4  
* Prerequisite(s): EGDT 2400, MATH 1060 or (EGDT 1600 and 1610) or appropriate math placement score; and University Advanced Standing  
Examines observation theory, and observational error analysis. Discusses the theory of measurement errors, principles of error propagation, variance and covariance, and the theory of the least squares method. Studies variances and co-variances of observed, derived, and adjusted quantities; regression analysis, and polynomial curve fitting. Involves systems of linear equations, linearization, and iteration of nonlinear equations; adjustment validation using hypothesis testing; modeling of surveying problems using different techniques of least squares and also presents several methods used to fit survey data to mathematical and survey models. Software fee of $18 applies. Lab access fee of $45 for computers applies.

SURV 3030  Land Development Planning, Platting, and Mapping  
3  
* Prerequisite(s): EGDT 1040, EGDT 1400, matriculation into the Geomatics BS degree, and University Advanced Standing  
Discusses land use planning techniques for residential and commercial developments. Subdivisions, industrial parks, and commercial complexes are studied along with the associated governmental regulations, codes, rules, and approval processes and procedures. Requires a mock public presentation on course projects. Uses current surveying/engineering software to develop and plot drawings including; subdivision plats, records of survey, ALTA surveys, topographic site surveys, and other maps. Software fee of $18 applies. Lab access fee of $45 for computers applies.

SURV 3210  Advanced Photogrammetry  
3  
* Prerequisite(s): EGDT 1400, MATH 1060, or (EGDT 1600 and 1610), or appropriate math placement score; and University Advanced Standing  
Examines principals of photogrammetry as applied to surveying and mapping. Analyzes geometry of vertical and aerial photographs, stereoscopic parallax, geometry of tilted photographs, and stereoplotter mapping. Discusses close-range photographic analysis, planimetric and topographic maps, flight planning, digital photogrammetry, aerial cameras and camera calibration. Involves the theory and techniques of photo orientation, digital imagery, and aerial triangulation. Software fee of $18 applies. Lab access fee of $45 for computers applies.

SURV 3220  Control Surveys  
3  
* Prerequisite(s): SURV 230, SURV 3010, matriculation into the Geomatics BS degree, and University Advanced Standing  
Applies principles and theories presented in prerequisite courses and moves the student to an advanced applications level. Studies the establishment of control surveys and survey networks. Reviews compass rule adjustment computation, matrix methods and least squares adjustment methods, random and systemic errors in measuring, and error propagation. Offers field applications of Radial and GPS surveying systems: static, kinematic and RTK procedures, data collection, post processing coordinate transformation, creation, and report generation. Teaches practical applications of network adjustment, control surveys, triangulation, and precision traverses with precise elevation control. Requires demonstration of field skills and techniques. Software fee of $18 applies. Lab access fee of $45 for computers applies.

SURV 3230  Construction and Route Surveys  
3  
* Prerequisite(s): EGDT 2400, MATH 1060 or EGDT 1600 and 1610, or appropriate math placement score; and University Advanced Standing  
Applies principles and theories presented in prerequisite courses. Develops computations, standard practices and practical applications for common construction and route surveys. Includes survey staking of pipes, curbs, streets, parking lots, buildings, and other typical land development and infrastructure project elements. Develops volume and area calculations. Requires computer derived solutions and applications from plans and specifications using modern data collection and coordinate geometry (COGO) computer software. Lab access fee of $45 for computers applies. Software fee of $18 applies.

SURV 3340  Boundary Law  
3  
* Prerequisite(s): University Advanced Standing  
Studies the responsibilities of the land boundary surveyor in protecting rights, title, and interest of the land; riparian and littoral rights, bona-fide rights, boundary easements and reversions, conveyances; sequential and simultaneous. Presents principles and rules of evidence. Includes monuments and monumentation, boundary locations, and procedures used to establish new boundaries and locate existing boundaries. Lab access fee of $45 for computers applies.
SURV 3400
Surveying Applications and Field Techniques III
3
* Prerequisite(s): EGD 2400, GIS 3600, and University Advanced Standing

Focuses on state of the art surveying applications and field survey techniques often employed by surveyors for various field and office tasks some of which may include horizontal and vertical networks and traverses, route surveys, and topographic/site surveys, and machine control methods. Teaches the construction, care, maintenance, calibration, effective setup and observation methods used for the latest in surveying instrumentation often including: global positioning systems (GPS), total robotic stations, 3D laser scanners, automatic levels, modern data collectors, coordinate geometry (COGO), computer-aided drafting (CAD) software, Drone surveying, and other geospatial surveying systems and instruments. Lab access fee of $45 applies. Software fee of $25 applies.

SURV 4340
Surveying Legal Principles
3
* Prerequisite(s): SURV 2320, SURV 3340, matriculation into the Surveying and Mapping BS degree, and University Advanced Standing

Focuses on researching the body of law as it applies to the practice of surveying. Covers common law associated with the Statute of Frauds, Constructive Notice, and Surveyor/Attorney interaction and roles. Discusses principles and concepts of dispute and conflict resolution as well as the specific role of the expert witness. Reviews the fact finder role of the surveyor in research/investigation techniques and sources while focusing on facts of a case and the applicable laws. Completers will work on case studies and prepare a final legal research paper. Involves tour(s) of a law library.

SURV 4400
Surveying Applications and Field Techniques IV
3
* Prerequisite(s): SURV 3400 and University Advanced Standing

Focuses on projects both lab/office and field work. Uses a mentor based teaching model to engage in several projects from inception to final deliverables. Requires students to make project decisions individually and as a team regarding each aspect of the various assigned projects. Requires each team member to demonstrate their own ability to perform all tasks required to complete the assigned projects within a given time frame resulting in deliverables that meet a pre-professional level of competency. Lab access fee of $45 applies. Software fee of $25 applies.

SURV 4500
Professional Services Practicum
3
* Prerequisite(s): University Advanced Standing

Examines the planning, organizing, and application of field and office practices, and develops a practical business plan including policies and procedures associated with a typical professional services firm providing civil engineering, architectural, and surveying services to the public and private sector. Reviews and applies a myriad management principles and functions including: operations, financial, marketing, human resource, project, and risk management. Exposes the student to the functions of typical financial software. Explores business concepts specific to professional services; pricing, fees, bidding, proposals, contracts, and professional liabilities. Involves developing a business plan for a professional services firm. Lab access fee of $45 for computers applies.

SURV 451R
Surveying and Mapping Lecture Series .5 to 2
* Prerequisite(s): University Advanced Standing

Consists of lectures presented by guest speakers or faculty on various topics in Surveying and Mapping including but not limited to: land surveying, mapping, remote sensing, geodesy, legal issues, photogrammetry, and various new and emerging technologies. May be repeated for a maximum of 2 credits toward graduation.

SURV 455G
Global Professional Ethics and Liabilities
3
* Prerequisite(s): PHIL 2050 and University Advanced Standing

Teaches the code of ethics adopted by the various professional services state and national organizations and/or associations. Explains meaning and attributes of professionalism along with the ethical, moral, and social responsibilities of professional engineers, architects, and surveyors. Integrates laws for practicing as a professional service with professional ethics as well as the roles of multi-culturalism and globalization. Includes model standards (international, national, and state), professional liability cases, safety, risks, professional client relationships, bribery, global engagement, contracts, and intellectual property. Involves lecture, readings, case studies, and other media.

SURV 4700
Fundamentals of Surveying Exam Prep
3
* Prerequisite(s): University Advanced Standing

Explains Fundamentals of Surveying (FS) exam parameters, conditions, and knowledge base designed and maintained by the National Council of Examiners for Engineering and Surveying (NCEES). Focuses on exam preparations in surveying and mapping principles, processes, and methods. Includes special emphasis on survey computations, computer applications, and applied mathematics and statistics. Uses the Fundamentals of Survey Reference Guide.

SURV 481R
Surveying and Mapping Internship
1 to 8
* Prerequisite(s): Junior or Senior Standing, departmental written approval, matriculation into the Surveying and Mapping BS degree, and University Advanced Standing

Provides opportunities to apply classroom theory and principles to actual on-the-job work experience, on a paid or non-paid basis, in the field of Surveying and Mapping. Emphasizes the establishment of goals, learning objectives, and expected outcomes with their Faculty Sponsor at the beginning of the internship and/or semester. Involves the submittal of a comprehensive written report at the end of the semester consisting of an evaluation of original goals and objectives and reflects on the achieved outcomes gained from the work experience. May be repeated for a maximum of 8 credits toward graduation. May be graded credit/no credit.

SURV 490R
Professional Topics in Surveying and Mapping
2 to 4
* Prerequisite(s): University Advanced Standing

Studies a chosen topic in Surveying and Mapping. May include research, experimentation, analysis, and reporting. May be taken more than once for different topics and for a maximum of 9 credits toward graduation.
SURV 4930
Senior Surveying and Mapping Capstone
WE
4
* Prerequisite(s): University Advanced Standing, Senior Standing

Provides an opportunity for a senior Surveying and Mapping student to participate in a significant and current research project which may advance the field of Surveying and/or Mapping. Includes independent study and laboratory/field work as necessary and must be approved and supervised by assigned faculty and technical mentors. Culminates in the preparation and presentation of a written paper describing the results of the research and/or completed project to project stakeholders, interested students, faculty, administration, the professional community, or the broader general audience. Lab access fee of $45 applies. Software fee of $25 applies.

Social Work (SW)

SW 1010
Introduction to Social Work
3

Introduces social work history, theory, and practice. Examines the relationship between policy and practice in the context of nine major fields of social work. Considers challenges faced by today’s practitioners including concerns with policy, social justice, and oppression. Explores current career opportunities in the field.

SW 2100
Human Behavior and the Social Environment I
3
* Prerequisite(s): Admission into the BSW program

Presents major theoretical concepts about human development and environmental factors influencing development from the social and behavioral sciences and their applications to micro, mezzo, and macro social work practice. Explores intersectionality and how diversity shapes human experience and identity development. Focuses on the first half of the lifecycle, the prenatal period through adolescence.

SW 275R
Survey of Current Topics
3
* Prerequisite(s): (ANTH 101G or PSY 1010 or SOC 1010 or SW 1010) and ENGL 1010 or ENGH 1005

Presents selected topic in Social Work and will vary each semester. Approaches subjects from a cross-disciplinary perspective. Requires a project demonstrating competency in the specific topic. May be repeated for nine credits toward graduation.

SW 3000 (Cross-listed with: FAMS 3000)
Social Work Practice I
3
* Prerequisite(s): Admission to the BSW program or declared major in Family Science and University Advanced Standing

Teaches students to apply the generalist social work Planned Change Model with individuals: engagement, assessment, goal setting/contracting, implementation, evaluation, and transition/ending. Prepares students to utilize core social work interpersonal communication skills to engage clients in a professional partnership with intervention and planning. Emphasizes the importance of cultural humility, principles of strengths-based and anti-oppressive social work practice, empirical research, and theories of human behavior and person-in-environment. Discusses ethical and professional demeanor and practice.

SW 3100
Social Work Practice II
3
* Prerequisite(s): SW 3000, Admission to the BSW program, and University Advanced Standing

Teaches students to apply the generalist social work Planned Change Process with families and groups: engagement, assessment, goal setting/contracting, implementation, evaluation, and transition/ending. Introduces group and family development and the theory and models of social work practice with groups and families. Prepares students to utilize group leadership and family communication skills necessary for research-informed practice. Emphasizes ethical and anti-oppressive practice.

SW 3200
Social Work Practice III
3
* Prerequisite(s): SW 3000, SW 3100, Admission into the BSW program, and University Advanced Standing

Applies the social work Planned Change Model (engagement, assessment, goal setting/contracting, implementation, evaluation, and transitions/ending) to community and organizational macro systems. Utilizes systems theory to examine macro social problems. Explores the values, principles, standards, laws, policies, and regulations that direct ethical social work practice on the macro level, including within communities and organizations.

SW 3400
Human Behavior and the Social Environment II
3
* Prerequisite(s): SW 2100, Admission into the BSW program, and University Advanced Standing

Presents major theoretical concepts about human development and environmental factors influencing development from the social and behavioral sciences and their applications to micro, mezzo, and macro social work practice. Explores intersectionality and how diversity shapes human experience and identity development. Focuses on the second half of the lifecycle, young adulthood through older adulthood.

SW 3500
Social Welfare Policies and Services
3
* Prerequisite(s): Admission into the BSW program and University Advanced Standing

Analyzes current social policy within the context of historical and contemporary factors that shape policy. Examines major social forces and institutions as they relate to and determine social policy emphasizing social welfare services in an industrialized society. Evaluates social welfare frameworks in light of the principles of social and economic justice. Identifies effect of social policy on generalist social work practice.

SW 3510
Global Social Work
3
* Prerequisite(s): ENGL 2010 with a C+ grade or higher, SW 1010, and University Advanced Standing

Investigates ways in which micro and macro skills can be integrated via a social development model to address social welfare issues in international settings. Includes the development of interventions beginning at the community level and moving toward global as well as individual practice. Focuses on the enhancement of practice knowledge and skills in program design, development, implementation and evaluation. Addresses basic resources such as food, shelter, potable water and sanitation, as well as sustainable economic development, inter-ethnic conflict, global indebtedness, ethnoconscious organizational development, and empowerment/conscientization as a method of intervening in social challenges.
Course Descriptions

SW 355G
Thanatology--Death and Dying
3
* Prerequisite(s): (PSY 1010 or SW 1010) and (ENGL 2010 with a C+ grade or higher) and University Advanced Standing

Introduces students to the subject of thanatology. Reviews theories and research associated with death and dying. Examines death systems, cultural norms, taboos and rituals. Studies the health care system, public policy, laws, and customs. Addresses death from a developmental perspective. Explores life-threatening illness, suicide, and end-of-life issues. Reviews grief and loss themes. Familiarizes students with vocabulary and explores related human service occupations such as bereavement counseling and hospice care. May be delivered hybrid.

SW 3600
Ethics and Values in Social Work Practice
3
* Prerequisite(s): Admission into the BSW program and University Advanced Standing

Acquaints students with the values of the field of social work and the Code of Ethics of the National Association of Social Workers to help them begin to develop the ability to effectively deal with the ethical issues they will be confronted with in professional practice. Increases students awareness of new and emerging ethical issues and provide tools and methodologies for ethical decision-making. Addresses ethical dilemmas involving conflict between personal values, agency guidelines, professional standards, and cultural differences. Includes discussion of models for ethical decision-making, the NASW Code of Ethics, as well as the codes of ethics of other human services professional organizations.

SW 371G
Diversity Issues in Social Work Practice
3
* Prerequisite(s): Admission into the BSW program and University Advanced Standing

Increases understanding and appreciation of diverse client populations, the nature of cultural identity, group membership and differential access to resources, and strategies to combat discrimination, oppression and economic deprivation and to promote social and economic justice. Examines socio-identities including: race, ethnicity, religion, gender, social class, sexual orientation, abilities, and age. Includes discussion of oppressive and discriminatory experiences as well as resilience and strengths encountered by different groups. Explores similarities, differences, and controversies between diverse populations in the context of their personal values and professional policy and practice.

SW 3750
Child Abuse Neglect and Domestic Violence
3
* Prerequisite(s): SW 1010 and University Advanced Standing

Reviews definitions of child abuse and neglect and other forms of domestic violence using a multidisciplinary perspective. Explores theories explaining the causes of abuse/neglect and domestic violence. Identifies indicators of abuse/neglect and aids students in making assessments and intervening in situations of abuse/neglect and domestic violence. Educates students in mandatory reporting laws and the workings of the child welfare system in efforts to intervene and prevent abuse/neglect. Addresses current policy issues pertinent to child abuse/neglect and domestic violence and identifies effective methods in which students can advocate for social change within the social and child welfare system.

SW 3760
Post Traumatic Growth--Beyond Survival
3
* Prerequisite(s): PSY 3110 and BESC 3020 or equivalent, and University Advanced Standing

Examines post-traumatic growth from an ecological perspective and across various at-risk populations. Emphasizes traditional and non-traditional approaches in dealing with physically and psychologically traumatic issues. Explores the characteristics of trauma from a strengths-based perspective and how to best provide services to people that have experienced traumatic events at the micro, mezzo, and macro levels. Considers events within their ecological context. Discusses sensitivity to a variety of circumstances and cultural patterns.

SW 3860
Interviewing Skills
3
* Prerequisite(s): ENGL 2010 with C+ or better and University Advanced Standing; PSY 2300 with a C- grade or higher recommended

Develops knowledge of and skill in clinical interviewing across cultures. Familiarizes students with a broad range of clinical interviewing skills. Uses class discussions, video clips of master clinicians, instructor modeling, in-class practice, videotaped role plays, and class and instructor evaluations of role plays.

SW 4450
Introduction to Child Welfare I
3
* Prerequisite(s): SW 1010 and (ENGL 2010 with C+ or higher) and University Advanced Standing

Prepares students to be effective interventionists in family systems where children are at risk of abuse, neglect, or dependency. Examines four-part Child Welfare CORE Competency-based series. Provides students with the basic knowledge, skills, and abilities necessary for successful performance as child welfare workers.

SW 4460
Introduction to Child Welfare II
3
* Prerequisite(s): Admitted to BS in Social Work, SW 1010, (ENGL 2010 with C+ or higher) and University Advanced Standing

Addresses the basic effects of abuse, neglect, and separation on child development. Focuses on the knowledge and skills required for child welfare workers to provide services related to child placement, including risk assessment, attachment, separation, loss, grief, family intervention, and reunification and reintegration services. Teaches strategies to reduce trauma and promote effective child placement. Explains the foster-care system, including how to work with foster caregivers.

SW 4500
Crisis Intervention
3
* Prerequisite(s): [SW 1010 and (ENGL 2010 with a minimum C+ grade) or instructor approval] and University Advanced Standing

Introduces the student to the philosophy, knowledge, techniques, and skills of crisis intervention. Provides opportunities through projects, written assignments, role playing, and first-hand interaction with professional crisis workers by which the students may deepen their understanding of this demanding method of social work practice.

SW 4600
The DSM of Mental Disorders
3
* Prerequisite(s): SW 1010, PSY 2300, ENGL 2010 with a C+ grade or higher, and University Advanced Standing

Provides an overview of the Diagnostic and Statistical Manual of mental disorders (DSM) based on clinical diagnosis. Teaches DSM based clinical diagnosis. Teaches DSM diagnoses including diagnostic criteria, prevalence rates, gender and cultural differences in prevalence and symptomatology, disease course, and differential diagnosis. Uses class discussions, videotapes of individuals with different DSM diagnoses, and case scenarios.
SW 4700
Case Management in Social Work Practice
3
* Prerequisite(s): SW 1010 and University Advanced Standing

Provides the conceptual foundation for providing case management services and crisis intervention to individuals in various population groups.

SW 475R
Current Topics in Social Work
3
* Prerequisite(s): SW 1010 and ENGL 2010 and University Advanced Standing

Presents selected topic in Social Work and will vary each semester. Requires a project demonstrating competency in the specific topic. May be repeated with different topics for 9 credits toward graduation.

SW 4800
Integrated Seminar I
1
* Prerequisite(s): SW 3000, admission to the BSW program, and University Advanced Standing
* Corequisite(s): SW 481R

Provides a generalist base for social work practice that involves an on-site, supervised field agency practicum and a weekly seminar. Assists the student to integrate classroom learning with learning that takes place in the on-site field practicum. First of two courses in the field practicum sequence. Graded Credit/No Credit.

SW 481R
Field Placement
1 to 8
* Prerequisite(s): Admission to the BSW program and University Advanced Standing
* Corequisite(s): SW 4800 or SW 4850

Provides a generalist base for social work practice that involves an on-site, supervised field agency practicum. Assists the student to integrate classroom learning with learning that takes place in the on-site field practicum. Performs a minimum of 225 hours of supervised social work in a local agency setting. May be repeated for a maximum of 10 credits toward graduation. May be graded credit/no credit. Course fee of $84 applies for practical experience applies.

SW 4850
Integrated Seminar II
1
* Prerequisite(s): Senior Standing in the BSW program, SW 4800 with B- or higher, and University Advanced Standing
* Corequisite(s): SW 481R

Provides a generalist base for social work practice that involves an on-site, supervised field agency practicum and a weekly seminar. Assists the student to integrate classroom learning with learning that takes place in the on-site field practicum. Provides an integrative classroom experience for students with a clinical interest currently working in related jobs or volunteer experiences in human service agencies or work sites. Second of two courses in the field practicum sequence.

SW 489R
Advanced Research in Social Work
1 to 3
* Prerequisite(s): SW 481R

Expands research experience by either (1) significantly assisting on a faculty member’s research project or (2) carrying out an independent research project of the student’s design under faculty mentorship. Requires individual initiative and responsibility. Includes limited formal instruction. May include literature searches, completion of the IRB application process, materials creation, data collection, data analysis, writing a publishable paper, preparing a poster, preparing an oral presentation, or other options as approved by the instructor. May be repeated for a maximum of 6 credits toward graduation.

SW 490R
Independent Studies
1 to 3
* Prerequisite(s): Instructor approval, department chair approval, and University Advanced Standing; for Behavioral Science Bachelor Degree students only

For qualified students who wish to undertake a well-defined project or directed study related to an area of special interest. Requires individual initiative and responsibility. Includes limited formal instruction and faculty supervision. Projects may include writing a publishable paper, passing a competency exam, producing an annotated bibliography, oral presentation, or other options as approved by the instructor. May be repeated for a maximum of 6 credits.

SW 6000
Social Work Practice I—Generalist Practice with Individuals
3
* Prerequisite(s): Admission to the MSW program

Teaches students to apply the generalist social work Planned Change Model with individuals: engagement, assessment, goal setting/contracting, implementation, evaluation, and transition/ending. Prepares students to utilize core social work interpersonal communication skills to engage clients in a professional partnership and complete a comprehensive assessment. Emphasizes the importance of cultural humility, principles of strengths-based and anti-oppressive social work practice, empirical research, and theories of human behavior and person-in-environment. Overviews intervention modalities, including case management. Discusses ethical and professional demeanor and practice.

SW 6020
Social Work Practice II—Generalist Practice with Families and Groups
3
* Prerequisite(s): SW 6000

Teaches students to apply the generalist social work Planned Change Process with families and groups: engagement, assessment, goal setting/contracting, implementation, evaluation, and transition/ending. Introduces group and family development and the theory and models of social work practice with groups and families. Prepares students to utilize group leadership and family communication skills necessary for research-informed practice. Emphasizes ethical and anti-oppressive practice and discusses how working with families and groups can advance human rights and social justice.

SW 6030
Social Work Practice III—Advanced Practice with Individuals
3
* Prerequisite(s): SW 6000 or acceptance into the Advanced Standing MSW Program

Examines clinical approaches most often used with clients. Emphasizes the theoretical basis of treatment modalities and how to apply them in practice.

SW 6040
Social Work Practice IV—Advanced Practice with Families and Groups
3
* Prerequisite(s): Admission to the MSW Program

Builds on the skills and knowledge for generalist social work practice with an emphasis on advanced practice with small groups and complex family cases. Implements the planned change process to target workable intervention strategies. Identifies family and group problems such as scapegoating, manipulation, resistance, and how to solve those problems.
Course Descriptions

SW 6050 Social Work Practice V—Advanced Practice with Organizations and Communities 3
* Prerequisite(s): SW 6300 or Acceptance into the Advanced Standing MSW Program
Animates multiple approaches social workers use to influence groups, organizations, communities, and systems. Examines concepts, theories, and models of macro level practice and skills for addressing complex practice and organizational situations.

SW 6200 Human Behavior and the Social Environment 3
* Prerequisite(s): Admission to the MSW Program
Teaches students critical perspectives, theories, and frameworks that describe the behavior of individuals, families, interpersonal and group relationships, communities, and social and political systems. Focuses on theories and knowledge related to biological, sociological, psychological, spiritual, and cultural processes as they affect development across the lifespan as well as well-being, challenge, and coping. Emphasizes the person-in-environment framework for understanding the reciprocal nature of interactions between micro, mezzo, and macro systems. Investigates varying social environment factors, including historical, social, racial, cultural, economic privilege and power, oppression, and marginalization that impact individuals, families, organizations and communities.

SW 6250 Macro Systems and Social Impact 3
* Prerequisite(s): Admission to the MSW program
Applies the social work Planned Change Model (engagement, assessment, goal setting/contracting, implementation, evaluation, and transitions/ending to community and organizational macro systems. Utilizes systems theory and thinking to examine social problems within actionable parameters: identifying stakeholders and their relationships to power and influence; examining historical precedence and current policy; identifying causes, consequences, and reinforcing feedback loops; investigating existing interventions; and determining the gaps and opportunities for intervention within a system. Examines the social work profession utilizing an anti-oppressive lens and explores the values, principles, standards, laws, policies, and regulations that direct ethical social work practice on the macro level.

SW 6300 Social Welfare Policy and Analysis 3
* Prerequisite(s): Admission to the MSW program
Teaches students to identify the impacts of historical and current social policies on individual, family, and community well-being, human rights, social and economic justice, and structural oppression. Analyzes the role of governments, and the private and non-profit approaches to social policy and service formulation, implementation, and evaluation. Examines major social forces and institutions as they relate to and determine social welfare policy and welfare services in the United States. Teaches students how to advocate for policy that ensures that resources, rights, and responsibilities are distributed equitably.

SW 6320 Social Work Practice with Diverse Populations 3
* Prerequisite(s): SW 6000
Emphasizes the social work profession’s commitment to cultural humility, anti-oppression, diversity, equity, and inclusion, and advancing social, economic, and environmental justice. Explores how intersectionality (including, but not limited to age, social class, culture, disability and ability, ethnicity, gender, gender identity and expression, immigration status, nationality, religion, race, religion, sex, sexual orientation, and tribal sovereign status) determines experiences of power, privilege, and marginalization and shapes people’s life experiences. Prepares students to practice social work reflexively in congruence with principles of anti-oppressive practice and to challenge dominant norms and world views that work to marginalize persons. Requires significant self-reflection to understand one’s unique positionality as a social work practitioner.

SW 6400 Social Work Research Methods 3
* Prerequisite(s): Admission to the MSW Program
Overviews social work research including the empirical research process and quantitative and qualitative methodologies. Prepares students to conduct ethical, responsible, and diverse social work research and/or evaluation on the macro, mezzo, and micro levels. Teaches critical analysis of scholarly literature and application of research in social work practice. Includes the importance of practice and program evaluation as social work research. Educates on effective oral and written presentation of research.

SW 6407 The Social Work Profession and Ethical Practice 3
* Prerequisite(s): Admission to the MSW Program
Provides an overview of the NASW Code of Ethics. Emphasizes the application of the Code to social work practice situations among various client systems and populations. Addresses the relationships between the Code and the client’s basic legal rights.

SW 6490 MSW Advanced Standing Bridge Course 4
* Prerequisite(s): Acceptance into the MSW Advanced Standing program
Supplements the knowledge, skills, and values foundation developed in participants’ BSW programs. Reviews content learned at the baccalaureate level and material that will be helpful in preparing students for the concentration year of the MSW program. Prepares MSW students to transition from the foundation year to the advanced concentration courses. Addresses topics necessary for advanced MSW-level practice and to support effective and ethical micro- and macro-level interventions. Covers key content addressed in SW foundation courses within the BSW program. This course is open to Advanced Standing students only.

SW 6491 MSW Advanced Standing Skills Course 4
* Prerequisite(s): Acceptance into the MSW Advanced Standing program, SW 6490
Develops students’ applied skills in Social Work practice. Integrates foundational social work approaches to practice, such as empowerment, strengths-based, and collaborative/person-centered skills. Assures that incoming Advanced Standing students have mastered foundational competencies in social-work practice skills with various types of human systems. Prepares MSW students to transition from the foundation year to the advanced concentration courses. Open to Advanced Standing students only.

SW 6500 Social Work Practice with Substance Related and Addictive Disorders 3
* Prerequisite(s): SW 6000 or acceptance into the Advanced Standing MSW program
Teaches how to reduce or eliminate the detrimental impact of substance use disorders at multiple levels, such as families, groups, organizations, and communities. Teaches the knowledge and skills that assist in reducing and eliminating addiction. Enables students to identify, assess, and evaluate those struggling with substance abuse and dependency throughout the life span and how to intervene when necessary.
SW 6530
Psychopharmacology
3
* Prerequisite(s): Admission to MSW program
Addresses principles of nervous system function with emphasis on communication between nerve cells. Focuses on therapeutic drugs as well as drugs of abuse to include mechanisms of action and behavioral effects. Teaches content on dynamics of addiction within a pharmacological context.

SW 6610
Spirituality in Social Work
3
* Prerequisite(s): Admission to MSW program
Addresses a theistic model for social work clinical practice. Examines various religious and spiritual world views and their application to counseling and psychotherapy. Emphasizes the need for increased sensitivity and competence in working with clients for whom faith-based interventions are desired.

SW 6620
Family Therapy
3
* Prerequisite(s): SW 6000
Introduces a skills-based course in the field of family therapy. Trains prospective clinicians to work with families from a systems focus. Reviews the history of family therapy and the predominant models of the field. Emphasizes ethical and cultural issues in the realm of family therapy.

SW 6630
Mental Health Assessment in Social Work Practice
3
* Prerequisite(s): Admission to MSW program
Introduces the theories, frameworks, research, and skills related to the assessment and diagnosis of mental health disorders. Provides an overview of the major disorders in the current edition of the DSM. Examines a range of mental disorders, including etiology, developmental course, diagnosis and diagnostic tools, and treatment planning. Addresses diversity and equity issues and ethical, socially responsible practice. Overviews biological, psychological, environmental, cultural, and relational risk and protective factors and summarizes the critiques and limitations of the DSM.

SW 6640
Crisis Intervention
3
* Prerequisite(s): Admission to MSW program
Introduces the philosophy, knowledge, techniques, and skills of crisis intervention. Provides opportunities through projects, written assignments, role playing, and first-hand interaction with professional crisis workers to deepen understanding of this demanding method of social work practice.

SW 6650
Couples Therapy
3
* Prerequisite(s): SW 6000
Trains prospective clinicians in working with couples in a therapeutic capacity. Teaches the basic skills, dominant models, and unique challenges of couples therapy. Examines essential skills and techniques in working with dating, cohabiting, premarital, and marital couples. Examines unique situations of therapy such as addictions, affairs, and sexual issues. Addresses issues of diversity in couples therapy.

SW 6660
Family Violence Across the Lifespan
3
* Prerequisite(s): Admission to the MSW program
Examines interpersonal violence within the context of familial role and across at-risk populations. Emphasizes a variety of family systems and the impact that issues such as divorce, substance abuse, child abuse, and incarceration have on the various units in the family system. Considers issues and builds practice skills related to family support services, child maltreatment, and substitute care.

SW 6670
Post Traumatic Growth--Practice and Clinical Considerations
3
* Prerequisite(s): Admittance to the MSW Program
Examines post-traumatic growth across various at-risk populations. Considers several clinical and therapeutic issues in addition to other practice skills related to supportive services from a variety of theoretical frameworks that promote individual, familial, and community growth. Discusses diagnostic criteria and treatment differences in post-traumatic stress and post-traumatic growth. Explores events within their ecological context and works to build sensitivity to a variety of circumstances and cultural patterns. Emphasizes traditional as well as non-traditional approaches in dealing with physically and psychologically traumatic issues such as cancer, interpersonal violence, divorce, child abuse, etc. Discusses characteristics of trauma from a strengths-based perspective and how to best provide services to people that have experienced traumatic events at the micro, mezzo, and macro levels.

SW 6700
Advanced Practice with Communities of Color and Other Diverse Populations
3
* Prerequisite(s): SW 6000, SW 6320
Explains diversity and difference, power and privilege, and oppression. Encourages self-examination within these systems as an essential foundation for culturally competent social work practice. Introduces issues related to service utilization within communities of color and providing effective interventions for historically under-served populations.

SW 679R
Special Topics in Social Work Practice
3
* Prerequisite(s): Admission to the MSW Program, or approval from Program Director.
Presents selected topics in the field of social work at the master's level that may vary by section and/or semester. Provides students in-depth education and training in specialized topics within the field of social work practice. May be repeated with different topics for up to 9 credits toward graduation requirements.

SW 6810
Integrative Seminar I
1
* Prerequisite(s): Admission to the MSW program
* Corequisite(s): SW 6910
Integrates and applies the knowledge and skills obtained from course work to social work practice in the field practicum agency. Examines and evaluates practice experiences to increase the ability to apply theory, research, models, and skills with clients. Emphasizes ethical social work practice. Provides an opportunity to practice social work skills under the supervision of an experienced professional social worker.

SW 6820
Integrative Seminar II
1
* Prerequisite(s): SW 6810
* Corequisite(s): SW 6920
Builds on Integrative Seminar I. Integrates and applies the knowledge and skills obtained from coursework to social work practice in the field practicum agency. Examines and evaluates practice experiences to increase the ability to apply theory, research, models, and skills with clients. Emphasizes ethical social work practice. Provides an opportunity to practice social work skills under the supervision of an experienced professional social worker.

SW 6830
Integrative Seminar III
1
* Prerequisite(s): SW 6820 or admission into the Advanced Standing MSW Program
* Corequisite(s): SW 6930
Provides opportunities for integration of social work course work and field practicum experiences. Features in-depth analysis of specific social work competencies within the students' domains of practice. Teaches the domains of social work practice that include: assessment, interventions, program policies, and service delivery and leadership in the chosen practice area. Provides guidance in practicum and seminar.
Course Descriptions

**SW 6840**
Integrative Seminar IV 1
* Prerequisite(s): SW 6830
* Corequisite(s): SW 6940
Builds on Integrative Seminar III. Provides opportunities for integration of social work course work and field practicum experiences. Features in-depth analysis of specific social work competencies within the students' domains of practice. Teaches the domains of social work practice that include: assessment, interventions, program policies, and service delivery and leadership in the chosen practice area. Provides guidance in practicum and seminar.

**SW 6910**
Foundation Field Practicum I 3
* Prerequisite(s): Admission to the MSW program
* Corequisite(s): SW 6810
Offers engaged field education as the central form of instruction and learning to socialize students to become practitioners. Integrates social work theory with practice. Reinforces the purposes, values, and ethics of the social work profession. Fosters the integration of empirical and practice-based knowledge to promote the development of professional competence.

**SW 6920**
Foundation Field Practicum II 4
* Prerequisite(s): SW 6910
* Corequisite(s): SW 6820
Provides opportunity to apply classroom learning and to integrate theory with practice. Aligns with Council on Social Work Education standards for field education. Reinforces the purposes, values, and ethics of the social work profession. Promotes the development of professional competence.

**SW 6930**
Advanced Field Practicum I 4
* Prerequisite(s): Admission to the MSW program
* Corequisite(s): SW 6830
Provides agency-based field instruction for advanced learning and practice opportunities relevant to social work. Provides opportunity to integrate and apply advanced generalist practice theory within field experiences. Advances knowledge and skills in practice, research, and evaluation across multi-level systems. Combines field experience, traditional classroom, field supervision, online activities, assignments, and self-directed learning per the field practicum manual.

**SW 6940**
Advanced Field Practicum II 4
* Prerequisite(s): SW 6930
* Corequisite(s): SW 6840
Continues agency-based field instruction and classroom seminar for advanced learning and practice opportunities relevant to social work. Provides opportunity to integrate and apply advanced generalist practice theory within field experiences. Increases knowledge and skills in practice, research, and evaluation across multi-level systems. Combines field experience, traditional classroom, field supervision, online activities, assignments, and self-directed learning per the field practicum manual.

**SW 6945**
Supplemental Field Practicum 1 to 4
* Prerequisite(s): SW 6940 or departmental approval
Agency-based field instruction for advanced learning and practice opportunities relevant to social work. Provides opportunity to integrate and apply advanced generalist practice theory within field experiences. Increases knowledge and skills in practice, research, and evaluation across multi-level systems. Combines field experience, field supervision, and self-directed learning per the field practicum manual. May be repeated for a maximum of 4 credits toward graduation.

**SW 6950**
Advanced Applied Research--MSW Capstone 3
* Prerequisite(s): SW 6000, SW 6300, and SW 6400 or admission into the Advanced Standing MSW Program
Teaches the knowledge and skills required to engage in practice-informed research across systems levels and stages of the social work helping process. Teaches the format of an empirical research poster presentation for a peer-reviewed conference. Synthesizes coursework throughout the MSW curriculum in alignment with the advanced competencies of the MSW program.

**Technology Management (TECH)**

**TECH 1000**
Experiential Credit Portfolio Development and Assessment 2
* Prerequisite(s) or Corequisite(s): TECH 110R
Introduces basic concepts, theories and principals of a professional portfolio to demonstrate prior learning experience. Includes the identification of prior professional experience, certifications, licenses, etc. to document professional competencies for assessment by a committee of appropriate faculty and technology professionals to determine experiential credit granting equivalences in courses TECH 110R. Introduces the value of continuous learning and the process of learning how to learn.

**TECH 1010**
Understanding Technology PP 3
Covers the principal technologies that are important and prevalent today and their associated science principles. Explores how technology applies to, affects, and interacts with various fields, environments and workplaces. Develops an appreciation for how technology evolves and what possible new and exciting technologies are on the horizon.

**TECH 1050**
Manufacturing Processes and Systems 3
Covers a wide variety of manufacturing processes, including: casting, welding, sheet metal forming, machining, composites fabrication, injection molding, extrusion, thermoforming, rotational molding, and electronics fabrication. Covers understanding of manufacturing systems and all the components required to work together, including: the production system, ERP software system, quality system, business structure, supply chain, and delivery.

**TECH 110R**
Technical Experiential Credit 1 to 8
* Prerequisite(s): TECH 1000
Allows students to obtain technical experiential credit through an approved portfolio. Portfolio is developed and approved in TECH 1000. May be repeated for a maximum of 15 credits toward graduation.
TECH 200G Technology and Human Life 3
Acquaints students with the major technologies affecting our culture and the global community, such as biotechnology, nanotechnology, information technology, and military technology. Places special emphasis on the moral, social, economic, legal, and political consequences of these technologies. Covers summary descriptions of various technologies, some of the major issues associated with them, and the underlying philosophical foundations of our encounters with them. May be delivered online.

TECH 2010 Supervision in Technology 3
Addresses employee motivation and the impact of the workplace environment (both physical and intangible). Presents various techniques of leadership and management (addressing different motivational theories and contemporary research on worker motivation). Teaches how to build and work in effective teams to inspire good performance and use conflict and negotiation effectively. Practices good communication skills both written and oral. Teaches how to understand the organizational structure, how to manage and assess performance, and how to be aware of opportunities and challenges when managing employees in a technological environment, including strategies for training and evaluation. May include hybrid or online delivery.

TECH 2020 Operational and Product Safety Management 3
Presents fundamentals of safety in the workplace including ergonomic, environmental, and other risk factors associated with new technology. Examines the role of technical managers through case studies and observation of local work places and businesses. Studies the impact of governmental agencies and regulations on workplace and product safety. Compares various communication and human factors techniques to prevent and mitigate human error.

TECH 2050 Introduction to Quality Management 3
Introduces quality management. Includes ISO 9000, application of Lean Six Sigma, continuous process/product improvement, basic statistical methods, performance measurements, cost of poor quality, employee empowerment, and global quality initiatives. Covers requirements for relevant professional certifications for career enhancement.

TECH 281R Internship in Technology 1 to 3
* Prerequisite(s): Department Approval
Obtains work experience for lower-division students in their technical field. Provides supervised, practical, and professional experience. Demonstrates accountability regularly with a School of Technology and Computing coordinator. May be repeated for a maximum of 3 credits toward graduation. May be graded credit/no credit.

TECH 290R Current Topics in Technology 3
Demonstrates current developments in technology fields and how they apply to business and industry processes. Prepares students to use contemporary technologies in their professions. May be repeated for a maximum of nine credits toward graduation. May be delivered hybrid.

TECH 297R Independent Study 1 to 3
* Prerequisite(s): Department approval
Requires individual initiative and responsibility. For qualified students who wish to undertake an independent project or directed study related to an area of technology or manufacturing. The topic must be approved by the instructor and the Department Chair. May be repeated for a maximum of 4 credits toward graduation.

TECH 3000 Introduction to Technology Management 3
* Prerequisite(s): University Advanced Standing
Addresses the special characteristics of managing and leading technology dependent organizations. Covers the leading influential technologies, technology's impact on organizational structure and the policy process, strategic technological planning, futures studies, leadership, global aspects of technology management, performance assessment, technology life cycles and financing, and some of the major ethical implications of managing technology dependent organizations. Canvas Course Mats $85/ McGraw applies

TECH 3010 Creativity Innovation and Change Management 3
* Prerequisite(s): ENGL 1010 or ENGH 1005, Sophomore Standing, and University Advanced Standing
Focuses on principles of creativity and innovation as they apply to technological enterprises. Covers theoretical and practical concepts of both creativity and innovation. Studies both concept and practice of structured methods of creative problem solving. Examines “Appreciative Inquiry” as an alternative management of change technique. Examines inventors and the invention process, including the patent process. Uses lecture, discussion, group projects, case studies, class activities, presentations, videos and guest lecturers.

TECH 301R Technology Lecture Series 1
* Prerequisite(s): ENGL 2010 and University Advanced Standing
Presents lectures from external speakers in various technology related subjects. Requires a written reaction paper for most of the lectures. May be repeated for a maximum of 2 credits toward graduation.

TECH 3400 Project Management WE 3
* Prerequisite(s): University Advanced Standing
Covers the fundamental principles, processes, and techniques of project management. Includes a systems approach to planning, scheduling, and controlling projects. Focuses on effective processes for managing projects across multiple disciplines/industries and varying management structures. Introduces project management tools that can be used to guide and manage individual and multiple projects. This is a writing intensive course.

TECH 3700 Materials Management 3
* Prerequisite(s): TECH 3000 and ENGL 2010 and University Advanced Standing
Involves a comprehensive approach to purchasing, raw and finished goods inventories, and determining and managing capacity and workers. Includes Just-in-time, Kanban, scheduling and emerging technologies. Assists in preparing students for national certifications.
Course Descriptions

TECH 3850
Quality Management in Technology
3
* Prerequisite(s): [TECH 3000 and (STAT 1040 or STAT 1045) or advisor approval] and University Advanced Standing

Involves a comprehensive approach to Quality Management related to technical professions. Covers Lean and Six Sigma approaches, continuous improvement/Kaizen, Voice of the Customer (VOC), Statistical Process Control (SPC), cost of poor quality, leadership, employee empowerment, teamwork, change management, and quality standards. Assists in preparing students for the relevant professional certifications for career enhancement.

TECH 4000
Reliability Management
3
* Prerequisite(s): TECH 3000, TECH 3850, (STAT 1040 or STAT 1045), and IM 2010 each with a grade of C- or higher and University Advanced Standing

Introduces reliability as a component of successful business strategies. Covers processes for design for reliability in the context of quality management and product development. Presents the most common tools and techniques used to test and interpret reliability data. Examines the role of managers and reliability engineers to ensure product reliability and safety. Uses a mix of case studies, student research, and current events to examine the business impact of reliability in technical enterprises. Software fee of $15 applies.

TECH 405G
Global Ethical and Professional Issues in Technology
3
* Prerequisite(s): PHIL 2050 with a grade of C- or higher and University Advanced Standing

Examines professional, ethical, and cultural issues related to the leadership of technological organizations. Studies the impact of emerging technologies, conflicting values, multiculturalism, and globalization on management practices in the workplace. Reviews current ethical theory and professional codes of conduct with special emphasis on global and intercultural issues. Includes lectures, readings, case studies and other media. May be delivered online.

TECH 4200
Technology Marketing and Customer Relationship Management
3
* Prerequisite(s): TECH 3000 and IM 2010 both with the grade of C- or higher; and University Advanced Standing

Examines marketing theory and customer relationship management (CRM) theory, as well as the application of CRM technology in marketing, sales, and service operations. Includes exploration of CRM software. Covers the basic marketing processes, such as identification, acquisition, growth and retention of desired customers. Highlights the basics of how contemporary CRM software can help manage these processes.

TECH 4400
Advanced Project Management
3
* Prerequisite(s): TECH 3400 with a C- or higher; University Advanced Standing

Presents advanced tools and techniques which build on the concepts presented in introductory project management class. Covers principles for managing multiple projects. Studies best practices for project management. Introduces the activities of Program Management, Project Portfolio Management and Strategic Project Leadership and Management. Analyzes basic cost justification techniques for making economic decisions in technical organizations. May be delivered online.

TECH 4420
Organization Information Technologies
3
* Prerequisite(s): TECH 3000, IM 2010, and ACC 3000 all with a C- or higher; and University Advanced Standing

Introduces how information, and the management of that information, can affect the structure and operations of organizations. Covers technical and organizational foundations of information systems along with contemporary approaches to building, managing, and protecting information systems including hands-on work with a modern Enterprise Resource Planning (ERP) system. Emphasizes how information technology affects decision-making. Uses Excel as a decision support tool. Examines the ethical and legal issues raised by the capabilities of information technology. Lab access fee of $45 for computers applies.

TECH 481R
Internship
1 to 3
* Prerequisite(s): TECH 3400, Technology Management Department Chair Approval, and University Advanced Standing

Provides opportunities to apply classroom theory while students work as employees in a job that relates to their careers. May be repeated for a maximum of 9 credits toward graduation. May be graded credit/no credit.

TECH 489R
Undergraduate Research in Technology Management
1 to 3
* Prerequisite(s): Department approval and University Advanced Standing

Provides the opportunity to conduct research under the mentorship of a faculty member. Practices the theoretical knowledge gained in prior major courses. Requires the creation of a significant intellectual or creative product that is characteristic of the Technology Management discipline and worthy of communication to a broader audience. May be repeated for a maximum of 3 credits toward graduation.

TECH 490R
Current Topics in Technology Management
3
* Prerequisite(s): (Senior Status or Instructor Approval) and University Advanced Standing

Designed to show developments in business and industry professions in the short- and mid-term future. Acquaints students with the newest technological developments in their fields. Prepares students for the changes that various technologies will bring their professions. May be repeated for a maximum of 9 credits toward graduation.

TECH 4910
Senior Capstone Project WE
3
* Prerequisite(s): TECH 3010, TECH 3400, and TECH 3850 each with a grade of C- or higher; Senior Status and University Advanced Standing.

Is for senior Technology Management majors. Provides a leadership transition from academic to applied/real-life work experience. Includes student, company liaison, and coordinator evaluation, on-site work visits, written assignments and oral presentations. Offers experience in establishing and accomplishing team objectives that improve their ability to add real value in their future employment. This is a writing intensive course.

TECH 497R
Independent Study
1 to 3
* Prerequisite(s): Technology Management Department Chair Approval and University Advanced Standing

Offers independent study as directed in reading or individual projects at the discretion and approval of the department chair. May be repeated for a maximum of 4 credits toward graduation.
TECH 6000
Strategic Management of Technology and Innovation in Engineering
3
* Prerequisite(s): Acceptance into Master of Science in Engineering and Technology Management program or approval of graduate program director

Introduces strategic management and technological innovation. Develops competence in analyzing novel technologies and business strategies through the exposure to strategy frameworks and historical and contemporary cases. Explores the relationship between technological innovation and strategy in the context of technology-based business firms.

TECH 6010
Engineering Law and Patents
3
* Prerequisite(s): Acceptance into Master of Science in Engineering and Technology Management program or approval of graduate program director

Explores legal topics relevant to engineering and technology managers. Focuses on intellectual property. Covers contracts, torts, labor law, property, and environmental law. Emphasizes legal principles necessary to provide engineers with the ability to recognize issues that are likely to arise in the engineering and technology management profession.

TECH 6400
Six Sigma Project Management
3
* Prerequisite(s): Acceptance into Master of Science in Engineering and Technology Management program or approval of graduate program director

Presents a range of advanced topics on how to define, plan, and execute a project whether your goal is simple or complex. Emphasizes the necessary skills to lead process improvement, and learn systematic methods used to improve performance efficiencies and to reduce variations in business operations to achieve productivity and profitability gains.

TECH 6420
Finance for Technical Systems
3
* Prerequisite(s): Acceptance into Master of Science in Engineering and Technology Management program or approval of graduate program director

Presents financial management and information systems concepts relevant to managing business firms. Develops ability to analyze and produce financial management information using information systems. Explores future trends at the intersection of financial management and technology.

TECH 6430
Product Management Processes
3
* Prerequisite(s): Acceptance into Master of Science in Engineering and Technology Management program or approval of graduate program director

Presents contemporary product design and development concepts and frameworks. Develops competence in analyzing different categories of technological products as well as different product design and development processes. Explores future trends in managing technological product design and development.

TECH 6450
Engineering Economics and Project Evaluation
3
* Prerequisite(s): Acceptance into Master of Science in Engineering and Technology Management program or approval of graduate program director

Presents concepts, methods, and tools of economic analysis and managerial decision-making from a cash flow perspective. Emphasizes the time value of money, present worth analysis, annual equivalent worth, rate of return, depreciation, and inflation analyses. Covers the evaluation of projects, and comparison and selection among alternatives addressed. Interprets general accounting principles and basic financial analysis.

TECH 6500
Resource Management in Engineering and Technology
3
* Prerequisite(s): Acceptance into Master of Science in Engineering and Technology Management program or approval of graduate program director

Enhances the ability to analyze and successfully implement resource management techniques in areas of asset, information, and data management. Develops ability to implement optimal processes and procedures in resource estimation and planning, cost and billing, scheduling, and execution. Analyzes resource management responsibilities from a broad level of resource capacity though resource allocation and specific work management.

TECH 6700
Data Driven Decision Making
3
* Prerequisite(s): Acceptance into Master of Science in Engineering and Technology Management program or approval of graduate program director

Critiques management practices for decision making within business. Defines appropriate uses of quantitative and visual data to influence the decision process. Presents engaging case studies drawn from publications, local business managers, and the experiences of faculty. Develops data analysis and presentation skills using appropriate software.

TECH 6710
Materials Management
3
* Prerequisite(s): Acceptance into Master of Science in Engineering and Technology Management program or approval of graduate program director

Presents a comprehensive list of topics in materials management. Places special emphasis on materials flow improvement and waste reduction. Covers production planning, capacity management, purchasing, demand forecasting, inventory management, and lean production.

TECH 679R
Special Topics in Engineering
3
* Prerequisite(s): Acceptance into Master of Science in Engineering and Technology Management program or approval of graduate program director

Presents a range of advanced topics of current interest in the fields of engineering management and technology management. Emphasizes new management practices that are emerging as a result of rapid technological advancements. Critiques theory and practice from the point of view of local guest speakers who present their unique management perspectives. May be repeated for a maximum of 6 credits toward graduation.

TECH 690R
Independent Study
3
* Prerequisite(s): Acceptance into Master of Science in Engineering and Technology Management program or approval of graduate program director

Offers independent study as directed in reading or individual projects at the discretion and approval of the graduate program director. May be repeated for a maximum of 6 credits toward graduation.

TECH 6950
Engineering and Technology Projects I
3
* Prerequisite(s): Acceptance into Master of Science in Engineering and Technology Management program or approval of graduate program director

Includes the development of a strategic planning process and methods for assessing strategic success. Describes organizing a proposal to summarize scope of work, work plan, team charter, and identified project outcomes based on ideas supported by a literature review.
Course Descriptions

TECH 6960  
Engineering and Technology Projects II  
3  
* Prerequisite(s): Acceptance into Master of Science in Engineering and Technology Management program or approval of graduate program director  
Describes how to apply advanced processes to move a project from start to finish utilizing the project proposal created in Project I. Covers risk analysis, effective communication, and response to problems. Emphasizes financial and project management concepts to complement a technical background. Describes how to implement optimized project standards of innovation promotion and leadership in product and/or project launch.

Theatre (THEA)

THEA 1013  
Introduction to Theatre WE  
3  
Examines theatre analysis, history, dramatic structure, outstanding dramatic literature, and the various roles in theatre production including the playwright, producer, director, the design team, production staff, house staff, run crew, and publicity. Utilizes lecture, film review, play reading, and live theatre attendance.

THEA 1023  
Introduction to Film  
3  
Designed to develop the analytical skills necessary for understanding the motion picture - not only as an art form, but as a tool for the statement of ideas. Explores the visual and aural elements employed by movie-makers to influence audiences. Studies context—the historical, social, political, cultural, and artistic situation which produced the film and how it reflects ourselves and our society. Combines lecture, screening, and demonstration with critical discussions of assigned readings and films. Requires a weekly lab.

THEA 1033  
Acting I  
3  
For theatre arts majors and anyone interested in developing acting skills. Covers basic acting terminologies and definitions, techniques of movement, voice, and script analysis with a strong emphasis on performance ethics.

THEA 1113  
Voice and Speech I  
3  
* Prerequisite(s): THEA 1033  
Provides student actors with tools for increasing vocal ease and expressivity, with an emphasis on cultivating free and spontaneous breath impulse. Introduces the range of human speech sounds experientially, as a prelude to detailed phonetics and accent work. Provides a framework for developing a personal practice of voice and speech outside the classroom and applying learning through in-class performance. Please note, this is a course in acting, not public speaking.

THEA 1131  
Movement Principles  
2  
* Prerequisite(s): BFA Theatre Arts Matriculation (Acting emphasis) or Instructor Approval  
Introduces student actors to principles and practices of physical training, including experiential anatomy, physical conditioning, creative movement, yoga, Alexander technique, contact improvisation, or tumbling and acrobatics. Includes work on physical devising as a core element of creative storytelling.

THEA 1223  
Makeup I  
3  
Introduction to character makeup application for stage and screen with emphasis on corrective, age, and period with some stylized applications. Studies include the development of physical characterization for scripted characters. Course fee of $23 for materials applies.

THEA 1513  
Stagecraft I  
2  
* Prerequisite(s) or Corequisite(s): THEA 1514  
Surveys all elements of theatre and film production including sets, lighting, sound, properties, and costumes. Offers experience in the construction, painting, dressing, and striking of sets and props; the hanging, focusing and gelling of lighting instruments; the preparation of sound effects; and the operation of sound and lighting control equipment. Utilizes lecture, demonstration, films, and observation of working production facilities and personnel. Course fee of $30 for equipment applies.

THEA 1514  
Stagecraft I Lab  
1  
* Prerequisite(s) or Corequisite(s): THEA 1513  
Laboratory component to THEA 1513. Provides experience in the construction, painting, and dressing of sets for current academic productions. Includes work with School of Arts Staff in the Scene Shop to develop basic set construction skills.

THEA 159R  
Production Practicum for Stage and Screen  
1  
Provides the opportunity for students to earn college credit for supervised backstage crew positions on departmental productions. Includes assignments to wardrobe, deck crews, board operations, props and any additional positions a specific production might require. Requires participation for the entire technical rehearsal and production run to receive credit. May be repeated for a maximum of 2 credits toward graduation.

THEA 1713  
Script and Text Analysis I  
3  
Introduces students to the analysis of story-based texts across a range of media. Focuses on the application of narrative and semiotic theory to dramatic literature from various periods in theatre history. Involves lecture, discussion, script and text analysis, film viewing, and live production attendance.

THEA 184R  
Singing Technique for Actors I-BA  
1  
* Prerequisite(s): Theatre Major  
Offers private vocal instruction for BA Theatre Arts majors to develop skills and techniques for performance in musical theatre. Requires substantial individual weekly practice. May be repeated for a maximum of 3 credits toward graduation. Course lab fee of $390 applies.

THEA 2033  
Acting II  
3  
* Prerequisite(s): THEA 1033; THEA 1113 recommended.  
Designed to build upon the techniques learned in THEA 1033. Emphasizes character development and application in creating a role through intense scene study of scripts in both stage and screen.

THEA 2100  
Teaching Theatre For Children FF  
3  
Introduces concepts and techniques to teach theatre to children in the community, schools or home consistent with state and national standards. Identifies methods to use drama to teach other subjects. Introduces concepts, theories and techniques in creative drama. Assists students to become independent, creative, and productive learners as they acquire the knowledge, skills, and experience to teach drama and theatre to children ages 5-12.
THEA 2127
Voiceover Acting
3
* Prerequisite(s): THEA 1113
Introduces students to voiceover techniques and the voiceover industry. Focuses on different types of voiceover work, including commercial/industrial copy, book narration and animation/video game work. Includes development of resume and demo reel.

THEA 2131
Movement for the Actor I
3
* Prerequisite(s): Theatre Major in BFA Theatre Arts or BA Theatre Arts
Helps actors for both stage and screen develop the physical awareness and self-discipline critical to effective performance of period style, staged combat, and the musical. Emphasizes balance, strength, postural correction, energy drives, motivation, and basic movement vocabulary.

THEA 2156
Group Voice for Theatre
3
* Prerequisite(s): Theatre major in BFA Theatre Arts or BA Theatre Arts
Provides group instruction for actors to develop technical skill and understanding of the singing voice. Requires a minimum of 2 hours of practice each week.

THEA 2203
Costume Construction I
3
* Prerequisite(s) or Corequisite(s): THEA 1513, THEA 1514, and THEA 2204
Provides a beginning overview of the vocabulary and basic sewing methods of theatrical costumeing. Familiarizes students with sewing machine and serger operation, basic sewing techniques, fabrics, simple patterning, and skills of costume construction. Course fee of $12 for equipment applies.

THEA 2204
Costume Construction I Lab
1
* Prerequisite(s) or Corequisite(s): THEA 1513, THEA 1514, and THEA 2203
Laboratory component to THEA 2203. Provides hands-on application of techniques taught in THEA 2203, including sewing of theatrical costumes, simple patterning, and other costume construction tasks.

THEA 2211
Theatre for Children and Youth
3
Introduces the philosophy and practices of theatre for children and youth, including its range of uses in the classroom, on the stage, in the community, corporate world and beyond. Focuses on storytelling, puppetry, and dramatic texts for children and youth. Requires play attendance.

THEA 222R
Theatre for Young Audiences Tour
3
* Prerequisite(s): Department Approval by Audition
Provides students with opportunities to perform in touring theatre productions for elementary and secondary audiences in school settings. Includes training in professional and amateur practices in performing, directing, designing, constructing, and managing touring shows for children and youth. May be repeated for a maximum of 9 credits toward graduation.

THEA 2311 (Cross-listed with: CINE 2311)
Film History I
3
Explores the development of the feature film, both in America and abroad from 1895 to 1945. Covers the evolution of motion pictures from conception as an entertainment novelty (c. 1895) to the mass-audience, commercial art form of the 1940's. Examines film as a serious historical study of a form of mass communication, which has had ethical, social, and political consequences on society. Includes lecture, screenings, and demonstrations with critical discussions of assigned readings and films.

THEA 2312 (Cross-listed with: CINE 2312)
Film History II
3
Explores the development of the feature film, both in America and abroad from 1940 to the Present. Emphasizes the continuing evolution of motion pictures from the height of the Studio System 1930s through to its status as one "form" of digital entertainment in 2010. Examines film as a serious historical study of a form of mass communication, which has had ethical, social, and political consequences on society. Includes lecture, screenings, and demonstrations with critical discussions of assigned readings and films. (Note: Some films screened may be considered controversial and carry an "R" rating.)

THEA 234R (Cross-listed with: CINE 234R)
Special Topics in Cinema Studies
3
* Prerequisite(s): THEA 1023
Focuses upon a particular genre, director, or film movement for the benefit of theater students seeking a film emphasis and MCT and English students seeking added depth in their fields of study. Topic varies by semester. May be repeated for 3 credits toward graduation, more for interest.

THEA 2513
Introduction to Design for Stage and Screen
3
* Prerequisite(s): THEA 1513 and THEA 1514
* Prerequisite(s) or Corequisite(s): THEA 2514
Studies the design process associated with costumes, scenery, and lighting. Uses research, conceptual renderings, models, and drafting. Introduces perspective drawing, figure drawing, three dimensional model building, and standard drafting practices. Lab access fee of $10 applies.

THEA 2514
Introduction to Design for Stage and Screen Lab
1
* Prerequisite(s): THEA 1513
* Prerequisite(s) or Corequisite(s): THEA 2513
Laboratory course to accompany THEA 2513. Offers experience in the construction, dyeing, and organizing of costumes. Involves collaboration with the School of Arts Staff on current UVU productions.

THEA 2515
Rendering for Theatre
3
* Prerequisite(s): ART 1020, ART 1650
Trains theatrical design students in the advanced drawing and painting skills necessary to create detailed renderings of costumes and scenery that effectively communicate visual ideas for stage design concepts. Lab access fee of $10 applies.

THEA 2517
Visual Concepts in Theatre
3
* Prerequisite(s): THEA 2513
Introduces students to the translation of scripts into visual imagery for the stage. Focuses on the processes of conception, development, and implementation of design components to the point of actual presentation. Lab access fee of $10 applies. Software fee of $25 applies.

THEA 2531
Introduction to Lighting and Sound
3
Exposes students to foundational technologies and system designs in lighting and sound for live performance. Provides opportunities for hands-on experience working on realized productions within the theatre department, rounding out their educational experience. Lab access fee of $10 applies. Software fee of $25 applies.

THEA 2541
Costume History
3
Studies costume history from ancient to modern times. Focuses on the political, social, economic and aesthetic focuses of each period. Includes study of the impact of other cultures on Western costume design.
THEA 254
Drafting for Theatre Design
3
Introduces and trains technical theatre students in the processes of drafting for theatrical design. Focuses on attaining a basic proficiency in using the most recent computer-aided drafting software. Lab access fee of $10 applies.

THEA 257R
Assistant Practical Design
1
Involves working closely with a designer on main stage productions in scenic, lighting, costume, makeup, sound, projections, technical direction, or dramaturgy to develop, research, design, and implement designs. Requires application and approval by appropriate theater faculty. May be repeated for a maximum of 2 credits toward graduation.

THEA 259R
Production Practicum for Stage and Screen II
1
* Prerequisite(s): THEA 1513
Provides the opportunity for students to earn college credit for supervised projects in production for the period up to dress rehearsal and during strike. Involves the development of a contract between the student and the assigned instructor. May be repeated for a maximum of 2 credits toward graduation.

THEA 271R
BFA Cohort Seminar
1
Prepares BFA students for integration into the program through theatrical projects that encourage ensemble collaboration and cooperation with cohorts. Teaches critical unifying skills for future professional endeavors. May be repeated for a maximum of 8 credits toward graduation.

THEA 272R
BA Seminar
1
Explores vocational and avocational applications for theatre training. Includes critical analysis of current productions in the department and beyond with faculty and production team members. Allows students and theatre artists to share insights with one another from their various specialties and perspectives. May be repeated for a maximum of 3 credits toward graduation.

THEA 274I
Scriptwriting for Stage
3
Introduces students to storytelling for the stage. Focuses on writing short scripts using classic play structure. Emphasizes the structuring of stories, creating engaging characters, and communicating ideas in the process of developing an individual voice. Extensive writing required.

THEA 2742
Scriptwriting for the Screen WE
3
Introduces students to writing for both film and television. Focuses on writing short, 10-minute film scripts using classic film structure. Includes lectures, readings, viewings, and extensive writing assignments to help students develop their individual voice, observe the world, find story material, create engaging characters, structure stories, and communicate ideas.

THEA 281R
Theatre Internship
1 to 6
* Prerequisite(s): Departmental Approval
Provides a transition from school to professional life where learned theory is applied to actual practice through meaningful on-the-job experience. May be repeated for a maximum of 4 credits toward graduation. May be graded credit/no credit.

THEA 284R
Singing Technique for Actors I - BFA
1
* Prerequisite(s): Theatre major in BFA Theatre Arts and department approval
Offers private vocal instruction for theatre majors to develop skills and techniques for performance in musical theatre. Requires substantial individual practice each week and bi-monthly master class participation. May be repeated for a maximum of 3 credits toward graduation. Course lab fee of $420 applies.

THEA 290R
Independent Study
1 to 5
For students with individual projects. Credits given for acceptable projects in playwriting, direction, acting, design or other supervised performance, labor, or research in theatre or film. Proposals must be submitted and approved by the department or instructor prior to enrollment. May be repeated for a maximum of 3 credits toward graduation.

THEA 303I
Acting III
3
* Prerequisite(s): Theatre Major in BFA Theatre Arts or BA Theatre Arts; THEA 2033; University Advanced Standing
Trains advanced students in the use of contemporary methods, theories, and practices in creation of roles. Focuses on material written and produced in late 20th and early 21st century theatre.

THEA 3110
Non Fiction Cinema History
3
* Prerequisite(s): THEA 1023 and University Advanced Standing
Surveys the history of non-fiction/documentary film from 1896 to the present. Includes study of early pioneers from Flaherty's NANOOK OF THE NORTH to the current trend of reality television and the popular documentaries of Michael Moore.

THEA 3113
Acting for Film
3
* Prerequisite(s): THEA 2033 or DGM 2110 and University Advanced Standing
Introduces the specialized techniques of performance, audition, and agent/actor relationships as they apply to the film and television industries.

THEA 3115
Improvisation I - BFA
3
* Prerequisite(s): Theatre Major in BFA Theatre Arts; THEA 2033; THEA 2131; University Advanced Standing
Introduces acting students to the use of improvisational techniques. Includes advanced training in the application of objectives, tactics, relationships, and movement in the creation of improvised scenes.

THEA 3116
Auditioning - BA
3
* Prerequisite(s): Theatre Major in BA Theatre Arts; THEA 1033; University Advanced Standing
Prepares BA students with the specific skills to successfully audition for stage roles at the amateur level. Includes instruction on playing objectives, defining relationships, making emotional connections, and physicalizing action. Focuses on mental and psychological preparation for the audition situation.

THEA 3117
Auditioning I
3
* Prerequisite(s): Theatre Major in BFA Theatre Arts or BA Theatre Arts; THEA 2033; University Advanced Standing
Prepares students with the specific skills to successfully audition for stage and screen roles. Includes work on objectives, relationships, emotional connection, and honest physicality.
THEA 311R
Improvisation II-Performance Team-BFA
2
* Prerequisite(s): Theatre Major in BFA Theatre Arts; THEA 3115; University Advanced Standing

Develops acting skills through improvisational performance. Involves training in short and long form improv incorporating skills of story and song structure. Emphasizes application of objectives, tactics, relationships, honest response and communication, and sensory work. May be repeated for a maximum of 4 credits toward graduation.

THEA 3122
Voice and Speech II-BFA
3
* Prerequisite(s): Theatre Major in BFA Theatre Arts; THEA 1113; THEA 2131; University Advanced Standing

Continues the work of first-semester Voice and Speech. Strengthens the actor’s use of voice, including resonance, range, and vocal variety. Introduces detailed phonetics using the International Phonetic Alphabet and identifies markers of formal versus informal speech. Emphasizes text work, including imaging and operative language. Please note, this is a course in acting, not public speaking.

THEA 3123
Acting in Accent - BFA
3
* Prerequisite(s): Theatre Major in BFA Theatre Arts and THEA 3122 OR department approval by audition; University Advanced Standing

Introduces methods for the actor to research, prepare, and perform any accent with authenticity. Includes exploration of the articulatory setting, pronunciation, and prosody of an accent, using primary research sources.

THEA 3124
Voice and Speech III - BFA
3
* Prerequisite(s): Theatre Major in BFA Theatre Arts; THEA 3122; University Advanced Standing

Introduces advanced topics in voice and speech including creating character voices, voice use in heightened emotional states and violence, and/or beginning and narration.

THEA 3131
Movement for the Actor II-BFA
3
* Prerequisite(s): Theatre Major in BFA Theatre Arts; THEA 1033; THEA 2131; University Advanced Standing

Trains advanced movement students in somatic techniques such as Yoga, Tai Chi, Feldenkrais, Alexander Technique, and Laban.

THEA 3133
Stage Combat
3
* Prerequisite(s): Theatre Major in BFA Theatre Arts or BA Theatre Arts; THEA 2033 OR THEA 2131; University Advanced Standing

Teaches basic principles of stage combat/choreography and safety practices. Course fee of $25 applies.

THEA 314G (Cross-listed with: COMM 314G, ENGL 314G)
Global Cinema History
3
* Prerequisite(s): (ENGL 2150 or THEA 1023) and University Advanced Standing

Studies the evolution of global film styles, movements, stars, and genres with a focus on international cinema chronologies outside the United States. Some films screened may be considered controversial and carry an "R" rating.

THEA 3151
Acting for Musical Theatre I
3
* Prerequisite(s): Theatre Major in BFA Theatre Arts or BA Theatre Arts; THEA 2033; University Advanced Standing

Introduces the acting student to the techniques of acting, singing, and dancing for the musical, as well as looking at the history and trends of the musical. Incorporates the art of transitioning between dialogue and song.

THEA 3152
Acting for Musical Theatre II - BFA
3
* Prerequisite(s): Theatre Major in BFA Theatre Arts; THEA 3151; University Advanced Standing

Further develops and refines the performer’s abilities as a singer, dancer, and actor. Links trends in musical theatre with past and present artistic choices. Explores design aspects of musical theatre and thematic integration of acting, singing, and dancing. Includes lecture, discussion, film, rehearsal, and performance.

THEA 3154
Dance for Musical Theatre I
3
* Prerequisite(s): Theatre Major in BFA Theatre Arts or BA Theatre Arts; THEA 2033; University Advanced Standing

Focuses on the academic and practical study of the history and development of Musical Theatre Dance as an art form from the late 19th century to present. Melds tap, ballet, jazz, ballroom, and ethnic dance into practical character and story based movement while exploring historic context, landmark choreographers and productions.

THEA 3155
Dance for Musical Theatre II - BFA
3
* Prerequisite(s): Theatre Majors in BFA Theatre Arts; THEA 3154; University Advanced Standing

Continues the study of musical theatre choreography. Emphasizes practical application involving a blending of various styles of dance into the creation of practical character and story-based movement.

THEA 315R
Musical Theatre Practicum
2
* Prerequisite(s): Audition, University Advanced Standing

Provides opportunities for musical theater students to perform leading roles in shortened versions of multiple musicals, and collaborate in the full process of producing a musical. May be repeated for a maximum of 6 credits toward graduation. Course fee of $30 for materials, specialized clothing applies.

THEA 319R
Performance Practicum for Stage and Screen
1
* Prerequisite(s): Audition, THEA 159R or Instructor Approval, and University Advanced Standing

Provides opportunity for earning college credit for supervised performance and production assignments in UVU theatre productions from dress rehearsal through closing performance (excluding strike). Allows students to apply learned skills to productions that are currently in performance. Requires project approval from instructor or Department Chair. May be repeated for a maximum of 4 credits toward graduation.

THEA 3211
Applied Theatre
3
* Prerequisite(s): University Advanced Standing

Provides training and experience in Applied Theatre with adult, youth, and child participants in educational and community settings. Includes using Theatre of the Oppressed techniques (as formulated by Augusto Boal), devising original theatre pieces, and creating theatre-in-education programs that address social and community needs and issues.

THEA 3223
Makeup II
3
* Prerequisite(s): THEA 1223; Instructor Approval; and University Advanced Standing

Teaches advanced techniques in makeup design and application, character analysis, and three-dimensional masks. Includes hair applications, prosthetic appliances, airbrush techniques, and variety characterizations. Course fee of $120 for materials applies.
THEA 3231  
Creative Drama  
3  
* Prerequisite(s): THEA 2211, THEA 2100, or Instructor Approval; University Advanced Standing

Examines how creative drama can be applied to other academic subjects, address social issues, and promote social change. Involves study of the works and creative processes of major theater practitioners.

THEA 3241  
Storytelling  
3  
* Prerequisite(s): University Advanced Standing

Focuses on specialized pattern drafting and textile selection and construction skills. Includes textile selection and construction skills. Lab access fee of $10 applies.

THEA 3251  
Puppetry  
3  
* Prerequisite(s): University Advanced Standing

Focuses on effective storytelling practice. Focuses on the use of storytelling as a means of interpreting, generating and preserving stories as an entertaining and empowering tool. Includes performance.

THEA 3514  
Period Styles for Theatre Design  
3  
* Prerequisite(s): THEA 2513 and University Advanced Standing

Develops intermediate skills in the various stage crafts including carpentry, property construction, lighting and sound for theatre and film. Includes further education in drafting; set and lighting principles; professional, management and safety practices. Students fulfill assigned responsibilities for UVU theatrical productions. Course Lab fee of $40 for equipment applies.

THEA 3541  
Costume Design I  
3  
* Prerequisite(s): THEA 2513 and University Advanced Standing  
* Corequisite(s): THEA 3545

Provides more experience with sewing machine operations and advanced sewing techniques. Includes textile selection and construction skills. Focuses on specialized pattern drafting and draping. Course fee of $25 for materials, equipment applies.

THEA 3545  
Costume Design I Lab  
1  
* Prerequisite(s): THEA 2513 and University Advanced Standing  
* Corequisite(s): THEA 3541

Laboratory course to accompany THEA 3541. Provides opportunities for practical application of design fundamentals in creation of costumes for various genres and historical periods.

THEA 3552  
Costume Construction II  
3  
* Prerequisite(s): THEA 2513 and University Advanced Standing

Introduction to the designing and practical application of theatrical lighting and sound. Includes laboratory work on UVU theatre productions. Lab access fee of $10 applies. Software fee of $25 applies.

THEA 3556  
Technical Direction for the Stage  
3  
* Prerequisite(s): THEA 2513 and University Advanced Standing

Explains the role of the Technical Director in the realization of a theatre production from page to stage. Offers training and hands-on experience in the collaborative production process as seen through the work of the Technical Director. Includes training in industry-standard software and tools. Lab access fee of $10 applies. Software fee of $25 applies.
THEA 3575
Scenic Design I Lab
1
* Prerequisite(s): THEA 2513 and University Advanced Standing
* Corequisite(s): THEA 3571

Provides the laboratory component to THEA 3571 in which students may acquire skills in creation and presentation of scale models used in the development of scenic design for theatrical productions. Includes layout, model making techniques, model finishes, and presentation.

THEA 359R
Production Practicum for Stage and Screen
1
* Prerequisite(s): THEA 259R and University Advanced Standing

Provides the opportunity for students to earn college credit for supervised backstage crew positions on departmental productions. Includes possible assignments to wardrobe, deck crews, board operations, props, and etc. Requires participation in the entirety of the production, including technical rehearsal and run of the show to receive credit. May be repeated for a maximum of 2 credits toward graduation.

THEA 3611
Directing Actors for Stage and Screen
3
* Prerequisite(s): (THEA 1033 and THEA 1713) or DGM 2110 and University Advanced Standing

Introduces basic directing techniques utilized in rehearsing and presenting acting scenes for stage and screen performance. Places emphasis on text analysis and effective communication with actors to achieve honest and believable performances in the intimate style of camera acting, as well as the highly physical acting style of the stage. Includes studies in script structure, visualization, movement, pace and rhythm, gesture and rehearsal techniques.

THEA 3612
Directing Actors for the Stage
3
* Prerequisite(s): THEA 3611; University Advanced Standing

Builds upon concepts covered in Directing Actors for Stage and Screen. Includes class workshops and demonstrations followed by class/instructor critique. Requires completion and presentation of a director's book. Culminates in public presentation of a one-act play.

THEA 3614
Directing Actors for the Screen
3
* Prerequisite(s): THEA 3611 or DGM 2110 or Instructor Approval; University Advanced Standing

Builds upon concepts covered in Directing Actors for Stage and Screen. Includes class workshops and demonstrations followed by class/instructor critique. Requires completion and presentation of a director's book. Culminates in public presentation of a short film. For Digital Media Majors and Theatre Majors with instructor approval.

THEA 3625
Development and Fundraising for the Arts
3
* Prerequisite(s): ENGL 2010 and University Advanced Standing

Introduces the development process, cultivating donors, and raising money through donations, sponsorships, and grants to support nonprofit arts organizations.

THEA 3711
Script and Text Analysis I
3
* Prerequisite(s): THEA 1713 and University Advanced Standing

Focuses on development of the tools and skills necessary for writing analytically about the theatre.

THEA 3721
Theatre History and Literature I WE
3
* Prerequisite(s): THEA 1013, THEA 1713, ENGL 2010, and University Advanced Standing

Examines the history of the theatre from its earliest origins through the Renaissance. Emphasizes theatre practice in its social, political and economic contexts. Introduces the theory and skills necessary for writing analytically about the theatre.

THEA 3722
Theatre History and Literature II
3
* Prerequisite(s): THEA 1013, THEA 1713, ENGL 2010 and University Advanced Standing

Examines the history of the theatre and its associated literature and artists from the Restoration to the present time. Focuses on historical theatre practice in its social, political and economic contexts. Introduces the theory and skills necessary for writing performance reviews and extended research papers in theatre.

THEA 3725
Musical Theatre History
3
* Prerequisite(s): THEA 1713 and University Advanced Standing

Explores the evolution of musical theatre from the 1700s through present day, focusing on how politics, cultural trends, and technology have changed the art form.

THEA 3731
Dramaturgy
3
* Prerequisite(s): THEA 1713

Introduces students to the practice and theory of dramaturgy and literary management. Examines the involvement of “dramaturgs” and “literary officers” in contemporary theatre. Provides opportunities for work on UVU and outside productions.

THEA 3741
Script Writing II
3
* Prerequisite(s): (THEA 2741 or THEA 2742 or Instructor Approval) and University Advanced Standing

Builds upon skills taught in Scriptwriting for Stage and Screen courses. Explores the thoughts, theories, principles and processes of transforming story materials into viable one-act (i.e. short, 45-60 minute) film scripts. Involves an extensive writing component.

THEA 374R
New Script Workshop
3
* Prerequisite(s): THEA 1033 or THEA 2741 or THEA 3611; University Advanced Standing

Acts as a reading, performance, discussion and improvisation lab for scriptwriter's creative works. Involves students in the process of polishing, refining, and brainstorming dramatic works. Supports original student scripts with the ultimate goal of production. Integrates the work of writers, directors and actors into a collaborative effort. Includes active class discussions, readings, improvisations, written and oral presentations and critiques, research and completion of a project. May be repeated for a maximum of 6 credits toward graduation. Course fee of $15 for materials applies.

THEA 4114
Film Acting II
3
* Prerequisite(s): THEA 3113, BFA Theatre Arts Matriculation, and University Advanced Standing

Focuses on development of the tools and skills necessary to compete as a professional actor. Involves creation of acting reels, head shots, and resumes. Emphasizes development of networking, professional etiquette and self-promotion skills needed to demonstrate a level of professionalism in the industry. Includes meetings with industry professionals.
### Course Descriptions

**THEA 4115**  
**Acting Styles-BFA**  
3  
* Prerequisite(s): BFA Theatre Arts Matriculation; THEA 2033, and University Advanced Standing  

**THEA 4117**  
**Auditioning and the Business - BFA**  
3  
* Prerequisite(s): BFA Theatre Arts Matriculation, THEA 2033, and University Advanced Standing  
  Teaches advanced skills and methods involved in the audition process for stage and screen roles. Focuses on developing resumes, interview skills, and preparing a wide range of audition pieces.  

**THEA 4119**  
**Senior Showcase and Career Management - BFA**  
3  
* Prerequisite(s): Senior Standing; THEA 4117, BFA Theatre Arts Major, University Advanced Standing  
  Allows students to collaborate with a director to create a showcase of each student actor's performance for promotional purposes. Teaches key skills in career and personal financial management related to the acting profession.  

**THEA 4122**  
**Speaking Shakespeare-BFA**  
3  
* Prerequisite(s): BFA Theatre Arts Major, THEA 3122, and University Advanced Standing  
  Increases the actor's command of operative language, complex syntax, imagery, figures of sound, and rhythm to fulfill the demands of classical acting. Involves rigorous textual analysis of the verse and prose of Shakespearean texts followed by practice in vocal/physical interpretation and performance.  

**THEA 415R**  
**Musical Theatre Workshop - BFA**  
2  
* Prerequisite(s): Theatre Major in BFA Theatre Arts; THEA 2156; THEA 3151; THEA 3154; University Advanced Standing  
  Prepares Juniors and Seniors for the rigor of a professional career in Musical Theater in terms of performance in acting, dance, music, and the relationship between the craft and the story. May be repeated for a maximum of eight credits toward graduation.  

**THEA 416R** (Cross-listed with: CINE 416R, ENGL 416R)  
**Special Topics in Film Studies**  
3  
* Prerequisite(s): (ENGL 2150 or CINE 2150 or THEA 1023) and University Advanced Standing  
  Covers cinema directors, genre, theory, and social change on a rotating basis. Explains course focus, defines terminology involved, then studies evolution and/or specific texts or contexts, and considers theoretical discourse. May be repeated for a maximum of 9 credits toward graduation. Some films screened may carry an "R" rating.  

**THEA 4200**  
**Theatre and Drama in the Secondary School**  
3  
* Prerequisite(s): EDSC 3000, EDSC 455G, University Advanced Standing  
  For theatre majors interested in teaching theatre arts at the secondary and college levels. Introduces methodologies, strategies, and philosophies of theatre pedagogy based upon current research and practices. Emphasizes lesson plan writing using the Utah State Secondary Theatre Core Curriculum and the National Committee for Standards in the Arts. Integrates theory and practice through lecture, discussion, writing, activities, and classroom teaching experiences in the college and public school settings.  

**THEA 451R**  
**Special Topics in Theatre Design and Technology**  
1 to 3  
* Prerequisite(s): Theatre Major in BFA Theatrical Arts or department approval; University Advanced Standing  
  Offers in-depth study of specialized topics in theatre technology and design. Includes possible topics such as scenic and integrated projections, mixed reality and video design, audience participatory technology, 3-D Modeling and prop design, special effects technology, and scenography and European technology. May be repeated for a maximum of 9 credits toward graduation.  

**THEA 4522**  
**Sound Design II**  
3  
* Prerequisite(s): THEA 3521 and University Advanced Standing  
  Builds on the foundations of the Sound Design I and Live Sound Reinforcement classes to focus on the higher-level design skills needed to succeed as sound designers in professional theater. Includes the drafting and paperwork skills to thoroughly describe a design before moving into production. Introduces students to the physics of sound. Focuses on the production of audio content, and the design and engineering of playback systems. Facilitates collaboration with other members of a theatrical design team. Requires 25 hours of technical sound support for UVU theatrical productions. Lab access fee of $10 applies. Software fee of $25 applies.  

**THEA 4535**  
**Multimedia Design for Stage**  
3  
* Prerequisite(s): Theatre major in BFA Theatre Arts, THEA 2513 and University Advanced Standing  
  Introduces the language, history, and technology of digital media as it applies to the theatre. Focuses on developing skills to conceive, create, and implement digital media designs for the stage. Lab access fee of $10 applies. Software fee of $25 applies.  

**THEA 4537**  
**Lighting Design II**  
3  
* Prerequisite(s): THEA 3531 and University Advanced Standing  
  Explores and applies elements of design as they relate to lighting for theatre, dance and film from design process conception to final paperwork. Requires work on UVU productions as well as individual student projects. Software fee of $25 applies. Lab access fee of $10 applies.  

**THEA 4546**  
**Digital Costume Design**  
3  
* Prerequisite(s): THEA 3541 and University Advanced Standing  
  Strengthens abilities to work with advanced design ideas based in script and director's concept. Develops digital rendering skills via training in Photoshop and Illustrator. Lab access fee of $10 applies.  

**THEA 4547**  
**Costume Design II**  
3  
* Prerequisite(s): THEA 3541 and University Advanced Standing  
  Expands on theories of costume design and provides more experience with practical application through research and rendering. Emphasizes advanced conceptual ideas based in script and director's concept. Encourages organization of a professional portfolio.
THEA 454R
Special Topics in Costume Construction
1 to 3
* Prerequisite(s): THEA 2203 and University Advanced Standing

Introduces students to the most advanced methods of tailored costume construction. Focuses on practical application of these techniques in the creation of fine couture. May be repeated for a maximum of 9 credits toward graduation.

THEA 4561
Stage Management II
3
* Prerequisite(s): THEA 3561 and University Advanced Standing

Introduces theatre management students to the advanced processes of creating and managing a professional theatre production organization. Emphasizes practical application of skills in professional situations (including work on UVU Theatre Arts main stage productions). Includes collaboration with directors, designers, and production crews to build both a personal methodology and the discipline of practice.

THEA 4577
Scenic Design II
3
* Prerequisite(s): THEA 3571 and University Advanced Standing

Focuses on integration of elements and phases of advanced set construction, property construction and paint finishes for theatrical sets. Includes shop experience and work on UVU productions. Lab access fee of $10 applies.

THEA 457R
Practical Design
1
* Prerequisite(s): Instructor Approval and University Advanced Standing

Involves work on approved projects requiring sophisticated skills in scenic, lighting, costume, or makeup design. Includes designs for UVU productions or for community and regional performing groups. Requires approval by appropriate theatre faculty. May be repeated for a maximum of 5 credits toward graduation.

THEA 458R
Special Topics in Theatre
1 to 3
* Prerequisite(s): THEA 1013 and Instructor Approval, or THEA 1713

Provides in-depth study of performance or academic topics such as theatrical artists, movements, theories, genres, and social changes. Involves delineation of course focus, defines terminologies involved, then studies evolution and/or specific texts or contexts and considers theoretical discourse. May be repeated for a maximum of 12 credits toward graduation.

THEA 4621
Theatre Administration I
3
* Prerequisite(s): University Advanced Standing

The first of two culminating courses in undergraduate theatre administration (theatre management). Introduces concepts in theatre administration for the nonprofit theatre organization. Focuses on the four functions of administration with emphasis on the strategic planning process. Utilizes lecture, discussion, video, and real-world simulation experiences.

THEA 4622
Theatre Administration II
3
* Prerequisite(s): ACC 3000, THEA 4621, and University Advanced Standing

A continuation of the arts administration concepts begun in Arts Administration I. Discusses financial recordkeeping requirements, financial planning, and promotional aspects of the nonprofit theatre organization. Culminates in a business start-up plan for a hypothetical nonprofit theatre organization. Discusses careers in arts administration. Discusses human resources as they apply to the theatre organization. Utilizes lecture, discussion, video, and real-world simulation experiences.

THEA 4741
Scriptwriting III
3
* Prerequisite(s): THEA 2741 or THEA 2742 or Instructor Approval; University Advanced Standing

Extends student dramatic writing skills by creating, rewriting, and polishing a full-length film or play. Focuses on choice of material for specific audiences as well as the specific issues of adaptation of material from an already published source. Emphasizes the processes of selection, securing legal rights, adaptation management imperative to the success of a venture. Includes active class discussions, readings, written and oral presentations, research and final readings of students completed projects.

THEA 474R
New Play Practicum
1
* Prerequisite(s): THEA 1013 or Permission of instructor, and University Advanced Standing

Provides student writers, actors, directors, designers, and dramaturgs with opportunities to participate in the development of new scripts for the stage. Emphasizes the process from script selection to actual production in UVU's Short Attention Span Theatre (SAST) festival. May be repeated for a maximum of 4 credits toward graduation.

THEA 475R
Special Projects in Dramatic Writing
2 to 9
* Prerequisite(s): THEA 4741 and University Advanced Standing

Offers upper-division directed study with professional/academic supervision to motivated students for writing projects such as commissioned or speculative scripted and/or dramatic works, i.e., musicals, one-man shows, guerrilla theatre, mimes, short or full-length films, documentaries, television shows, sit-coms, movies-of-the-week and other forms not covered by current classes. Allows for a semesters of writing/re-writing and/or critique/development and possible workshop presentation. May be repeated for a maximum of 9 credits toward graduation.

THEA 481R
Theatre Internship
1 to 8
* Prerequisite(s): Departmental Approval and University Advanced Standing

Provides a transition from school to professional life where learned theory is applied to actual practice through meaningful on-the-job experience. Repeatable for a maximum of 4 credits toward graduation. May be graded credit/no credit.

THEA 484R
Singing Techniques for Actors II-BFA
1
* Prerequisite(s): Theatre Major in BFA Theatre Arts; complete a total of 3 credits out of THEA 184R and THEA 284R, or receive department approval; University Advanced Standing

Offers private vocal instruction for upper-division theatre majors to continue developing skills and techniques for performance in musical theatre. Requires bimonthly master class participation and substantial individual practice. May be repeated for a maximum of 4 credits toward graduation. Course Lab fee of $420 for private voice lessons applies.

THEA 490R
Independent Study
1 to 3
* Prerequisite(s): University Advanced Standing

Provides independent study as directed in reading and individual projects at the discretion and approval of the Dean and/or Department Chair. May be repeated for a maximum of 9 credits toward graduation.
Course Descriptions

THEA 497R
Professional Topics
1
* Prerequisite(s): Senior Status, Department Approval, University Advanced Standing
For those intending to enter professional theatre. Includes, but not limited to, the following topics: literature, research, analysis, design, management or performance aspects of theatre and the performing arts. May be repeated for a maximum of 3 credits toward graduation.

THEA 4981
Portfolio
1
* Prerequisite(s): University Advanced Standing
Features development of student portfolio for the areas of performance, design, management, directing, script writing, and performance. Includes interview skills and website development. Emphasizes placement in the theatrical job market or graduate school placement.

THEA 4993
Senior Project in Performance
3
* Prerequisite(s): THEA 3722, Senior Status, and University Advanced Standing
Provides credit for independent projects and research of advanced nature in the area of Theatre Arts under faculty supervision. Requires an area of study to be designated.

THEA 4994
Senior Project in Theatre
3
* Prerequisite(s): THEA 3722, Senior Status, and University Advanced Standing
Provides credit for independent projects and research of advanced nature in the area of Theatre Arts under faculty supervision. Requires an area of study to be designated.

THEA 4995
Senior Project in Design
3
* Prerequisite(s): THEA 3722, Senior Status, and University Advanced Standing
Provides credit for independent projects and research of advanced nature in the area of Theatre Arts under faculty supervision. Requires an area of study to be designated.

Transportation Technologies (TT)

TT 3126
Advanced Hydraulics
3
* Prerequisite(s): Matriculation and University Advanced Standing
Utilizes advanced thermal imagery to examine efficiency loss in fluid power systems. Demonstrates the operation and diagnosis of electronic over hydraulic controls. Demonstrates diagnosis of closed loop and closed circuit fluid power systems. Examines micro-leak testing of hydraulic system components. Focuses on electrical over hydraulic schematic interpretation.

TT 3140
Vehicle Safety and Emissions
3
* Prerequisite(s): Matriculation and University Advanced Standing
Studies testing and diagnostics of vehicle safety systems, SRS systems, and adaptive strategies on modern vehicles. Explores current EPA standards and regulations and future emissions testing requirements in the automobile industry.

TT 3230
High Performance Engines
3
* Prerequisite(s): Matriculation and University Advanced Standing
Offers a more in-depth study of the design factors that are unique to high output engines and how to modify engines to obtain the desired outcome. Studies the characteristics of various fuels used in high performance engines and their effects. Discusses the implications of service learning and ethics in high performance engine applications. Tool room fee of $19 for equipment applies. Course Lab fee of $17 for materials applies.

TT 3260
Energy Storage and Advanced Electrical
3
* Prerequisite(s): Matriculation and University Advanced Standing
Explores advances in electronics and energy storage systems found on Battery Electric Vehicles (BEV), Hybrid Electric Vehicles (HEV), and Plug-in Hybrid Electric Vehicles (PHEV). Topics include advanced operation, repair, diagnosis and troubleshooting of BEVs, HEVs and PHEVs using manufacturer-specific diagnostic tools and equipment.

TT 3320
Design and Construction
3
* Prerequisite(s): Matriculation and University Advanced Standing
Analyzes the current use and function of advanced systems and materials used in modern and future transportation vehicles. Includes advanced driver assistance and urban air mobility systems, their function and diagnostic calibration and repair procedures. Teaches advanced structural material usage and the damage analysis process necessary for proper advanced system repair.

TT 3350
Alternative Fuel Systems
3
* Prerequisite(s): Matriculation and University Advanced Standing and AUT 2250 or AUT 2260 recommended
* Corequisite(s): AUT 2240 recommended
Studies current and upcoming alternatives to gasoline as a fuel for the transportation industry that are being promoted, used, and developed by sources within and without the mainstream production system. Includes new alternatives such as CNG/Propane, hydrogen, electric, hybrid (both plug-in and non-plug-in), bio-fuels (both diesel and alcohol), diesel, and fuel cells such as proton exchange membranes. Discusses the implications of service learning and ethics in alternative fuel powered vehicles.

TT 3406
High Performance Diesel Engines
3
* Prerequisite(s): Matriculation and University Advanced Standing
Studies the operation and performance efficiencies of light duty, heavy duty and industrial applications of diesel engines including marine, mining and gen-sets. Examines current engine performance advancements and designs with modern technology. Utilizes Dynamometer testing to analyze engine performance differences in relation to the design theory.

TT 3450
Failure Analysis Materials Science and Treatments
3
* Prerequisite(s): Matriculation and University Advanced Standing
Analyzes the physical properties and applications of metals, ceramics, composites, surface treatments and polymers. Studies Material Science Technology, including the study of organic and Inorganic matter and solid matter. Researches and describes the means and data to determine root causes of failure. Introduces FMEA (Failure Mode Effects Analysis) and PFMEA (Process Failure Mode Effects Analysis). Conducts both NDT (Non Destructive Testing) and DT (Destructive Testing) methods. Utilizes testing equipment for compliance with ASTM (American Standard Testing Methods).
TT 3460 Can Bus Ladder Logic and PLC Systems 3
* Prerequisite(s): Matriculation and University Advanced Standing
Explores in vehicle network communication systems including: Network system protocols, body control modules and other LAN controllers, and smart sensors. Covers development and current trends in use of CAN BUS and network systems and sensors in modern automobiles. Introduces the use of scan tools and other diagnostic tools and diagnostic strategies. Covers updating of CAN BUS systems through factory tools and software and theory, programming, and industrial control system applications of small and medium sized programmable logic controllers (PLCs). Studies basic maintenance, operation, troubleshooting, and programming.

TT 3500 Fabrication and Automotive Interior Design 3
* Prerequisite(s): Matriculation and University Advanced Standing
Explores basic fabricating tools such as sheet metal brake, slip rolls, band saw, and nibblers. Uses specialty tools such as English wheel, power hammer, kraft former, plenish hammer, shrinkers, and stretchers. Teaches panel fabrication and hammer forming on steel and aluminum panels. Explores the design process of vehicles, advanced interior components and materials.

TT 3840 Dynamometer/Data Acquisition 3
* Prerequisite(s): Matriculation and University Advanced Standing
Studies dynamometer testing and evaluation tools and skills relevant to data acquisition systems. Analyzes data collected to measure horsepower, torque, and energy output. Teaches how to collect and create proper baselines and testing procedures. Discusses compiled data to help change drivability and manage the many different systems on the vehicle.

TT 4000 Capstone 3
* Prerequisite(s): TT 4510, TT 4270, and University Advanced Standing
Provides a leadership transition from academic to applied/real-life work experience. Includes students, company liaison, and coordinator evaluation, on-site work visits, written assignments and oral presentations, creation of transportation related business improvements. Offers experience in establishing and accomplishing team objectives that improve their ability and add real value in their future employment.

TT 4230 Advanced Welding Technologies and Attachment Methods 3
* Prerequisite(s): TT 3840 and University Advanced Standing
Explores all welding processes. Investigates advanced welding processes such as MIG, TIG, ARC, laser welding, friction welding, explosive welding, ultra-sonic welding, and electron beam welding. Examines attachment methods with the use of rivet technology in conjunction with panel bonding technology. Covers advanced attachment processes of the future.

TT 4260 Electric Drive Systems 3
* Prerequisite(s): TT 3260 and University Advanced Standing
Introduces power electronics and electric drive systems electronic devices and their switching performance and thermal design including: power converters, AC-AC converters, DC-DC converters, inverters. Analyzes energy-efficient AC and DC motor drives.

TT 4400 Advanced Composites 3
* Prerequisite(s): Matriculation and University Advanced Standing
Examines advanced composite materials, processes, layup/lamination, vacuum bagging, adhesive bonding, tooling, repair, proper surface preparation and inspection methods and techniques. Includes lecture, demonstration and practical application.

TT 4510 Operations Management Fleet and Personnel WE 3
* Prerequisite(s): Matriculation and University Advanced Standing
Studies common shop managerial skills and techniques. Explores strategies in streamlining efficiency through inventory control, targeted scheduling, shop-based software implementation. Offers exposure to the hierarchy of positions in a fleet or shop setting. Studies manufacturer warranty process and approvals, personnel management skills, inventory control, fleet maintenance procedures and deployment. Instructs on the production of written improvement policy plans.

TT 4840 Performance Tuning 3
* Prerequisite(s): AUT 2250, TT 3840, and University Advanced Standing
Studies computer communication processes, sharing of data and information of vehicles. Studies requirements, opportunities, and challenges of re-programming factory computers. Explores aftermarket computer use on engine operations.

University Studies (UVST)

UVST 1100 Prior Learning Assessment Portfolio 3
* Prerequisite(s): Departmental Approval
Identifies student’s individual work related to specific skills, theoretical background, and content to prepare a portfolio for prior learning credit evaluation. Graded Credit/No Credit.

UVST 289R Undergraduate Research 1
* Prerequisite(s): Department Approval
Utilizes Phi Theta Kappa’s theme from their “Honors in Action” program as a vehicle to introduce undergraduates to research. Requires students to write a literature review and to present their findings. Requires students to be a member of Phi Theta Kappa. May be repeated for a maximum of 4 credits toward graduation.
Zoology (ZOOL)

ZOOL 1090  BB
Introduction to Human Anatomy and Physiology
3  * Prerequisite(s): BIOL 1010 or BIOL 1610
Presents a basic introduction to the sciences of anatomy and physiology. Covers the basic structure and function of the human body at the cellular, tissue, organ, and system levels. Provides a foundation of particular value for pre-nursing students who wish to have a preview of their required life science courses.

ZOOL 2320  Human Anatomy BB
3  * Prerequisite(s): BIOL 1610 and (ENGL 1010 or ENGH 1005) with a minimum of C- or written permission of the Anatomy program coordinator.
* Corequisite(s): ZOOL 2325
Studies, in-depth, the anatomy of the human body. Covers the structure and some functions at the cellular, tissue, organ, and system levels. Emphasizes the names, locations, and functions of body components. Involves problem solving and analytical thinking. Includes weekly laboratory study of human cadavers, models, and specimens. Canvas Course Mats $85/McGraw applies.

ZOOL 2325  Human Anatomy Laboratory
1  * Corequisite(s): ZOOL 2320
Studies, in-depth, the anatomy of the human body. Covers the structure and some functions at the cellular, tissue, organ, and system levels. Emphasizes the names, locations, and functions of body components. Involves problem solving and analytical thinking. Includes weekly laboratory study of human cadavers, models, and specimens. Course Lab fee of $30 applies.

ZOOL 232H  Human Anatomy
3  * Prerequisite(s): BIOL 1610, (ENGL 1010 or ENGH 1005) with written permission of the Anatomy program coordinator.
* Corequisite(s): ZOOL 2325; at least one semester of college level experience is highly recommended.
Is for students who intend to pursue careers in the bio-medical sciences; especially pre-nursing, pre-med, pre-dent, and pre-vet students. Emphasizes the role and value of anatomical knowledge in health and disease. Covers the same general material as ZOOL 2320, but emphasizes clinical applications of the information. Requires students to choose and complete a course project that may involve short written reports, a term paper, or a poster presentation. Includes weekly laboratory study of human cadavers, models, and specimens. Canvas Course Mats $85/McGraw applies.

ZOOL 232L  Human Anatomy Honors Laboratory
1  * Prerequisite(s): BIOL 1010 or BIOL 1610, ENGL 1010 or ENGH 1005 or written permission of the Anatomy program coordinator.
* Corequisite(s): ZOOL 232H
For students who intend to pursue careers in the bio-medical sciences; especially pre-nursing, pre-med, pre-dent, and pre-vet students. Emphasizes the role and value of anatomical knowledge in health and disease. Covers the same general material as ZOOL 2320, but emphasizes clinical applications of the information. Students will choose and complete a course project that may involve short written reports, a term paper, or a poster presentation. Includes weekly laboratory study of human cadavers, models, and specimens. Course Lab fee of $30 applies.

ZOOL 2420  Human Physiology
3  * Prerequisite(s): BIOL 1610 with a minimum grade of C- and CHEM 1110 with a minimum grade of C-
* Corequisite(s): ZOOL 2425
Studies the functions of the human body at the chemical, cellular, organ, and system levels. Explains control mechanisms involved in homeostasis and stimulus/response pathways. Involves problem solving and analytical thinking. Includes weekly laboratory.
ZOOL 2425
Human Physiology Laboratory
1
* Prerequisite(s): BIOL 1610 and CHEM 1110
* Corequisite(s): ZOOL 2420

Accompanies ZOOL 2420. Covers topics that include the scientific method, scientific data presentation, diffusion and osmosis, enzymatic function, buffers, neurotransmission, skeletal and cardiac muscle physiology, hematology, respiratory physiology and renal physiology. Course Lab fee of $24 applies.

ZOOL 242H
Human Physiology
3
* Prerequisite(s): BIOL 1610 with a minimum grade of C- and CHEM 1110 with a minimum grade of C-, written permission of the physiology program coordinator
* Corequisite(s): ZOOL 2425

Studies the functions of the human body at the chemical, cellular, organ, and system levels. Explains control mechanisms involved in homeostasis and stimulus/response pathways. Involves problem solving and analytical thinking. Includes weekly laboratory. Requires a term paper, project, or presentation.

ZOOL 242L
Human Physiology Honors Laboratory
1
* Prerequisite(s): BIOL 1010 (or BIOL 1610), CHEM 1110, written permission of the physiology program coordinator.
* Corequisite(s): ZOOL 2425

Studies the functions of the human body at the chemical, cellular, organ, and system levels. Explains control mechanisms involved in homeostasis and stimulus/response pathways. Involves problem solving and analytical thinking. Includes weekly laboratory. Course Lab fee of $24 applies.

ZOOL 3100
Vertebrate Zoology
3
* Prerequisite(s): BIOL 1620 with a C- or higher and University Advanced Standing
* Corequisite(s): ZOOL 3105

Covers the evolutionary development of the vertebrates pertaining to major skeletal and physiological adaptations. Has an ecological approach as to vertebrate habitat requirements, their distribution, and community roles. Designed for Biology or Zoology majors who desire a broad introduction to the vertebrates and a greater understanding of their unique structure, distribution and the importance of these organisms in the present and past history of the Earth. Includes weekly laboratory.

ZOOL 3105
Vertebrate Zoology Laboratory
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): ZOOL 3100

Provides students with hands-on laboratory experience in classification and identification of vertebrates. Course Lab fee of $50 applies.

ZOOL 3200
Invertebrate Zoology
3
* Prerequisite(s): BIOL 1620 with a C- or higher and University Advanced Standing
* Corequisite(s): ZOOL 3205 Invertebrate Zoology Laboratory

Intended for Biology Department majors. Covers the anatomy, physiology, systematics, evolution and ecology of invertebrate animals.

ZOOL 3205
Invertebrate Zoology Laboratory
1
* Prerequisite(s): BIOL 1620 with a C- or higher and University Advanced Standing
* Corequisite(s): ZOOL 3200 Invertebrate Zoology

Covers the anatomy, physiology, systematics, evolution and ecology of invertebrate animals. Course Lab fee of $25 applies.

ZOOL 3300
Herpetology
3
* Prerequisite(s): BIOL 1620 with minimum grade of C-, and University Advanced Standing
* Corequisite(s): ZOOL 3305 Herpetology Laboratory

Covers the evolution, ecology, and diversity of reptiles and amphibians. Includes active class discussions, oral presentations. Emphasizes native Utah herpetofauna. Must be taken concurrently with weekly laboratory and required field trips.

ZOOL 3305
Herpetology Laboratory
1
* Prerequisite(s): BIOL 1620 with minimum grade of C-, and University Advanced Standing
* Corequisite(s): ZOOL 3300 Herpetology

Covers the evolution, ecology, and diversity of reptiles and amphibians. Includes active class discussions, oral presentations, and field trips. Emphasizes native Utah herpetofauna. Must be taken concurrently with lecture. Course Lab fee of $65 for transportation, support, and lab applies.

ZOOL 3430
Entomology
3
* Prerequisite(s): BIOL 1620 and BIOL 1625 with a minimum grade of C- in each, and University Advanced Standing
* Corequisite(s): ZOOL 3435

Introduces the study of insects, including insect diversity and classification, anatomy and physiology, relationships to other animals and plants, behavior, and ecology. Includes the application of the study of insects to pest management, environmental assessment, and forensic investigations. Course lab fee of $45 applies.

ZOOL 3435
Entomology Laboratory
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): ZOOL 3430

Introduces the study of insects, including insect diversity and classification, anatomy and physiology, relationships to other animals and plants, behavior, and ecology. Includes the application of the study of insects to pest management, environmental assessment, and forensic investigations. Course lab fee of $45 applies.

ZOOL 3500
Mammalogy
3
* Prerequisite(s): BIOL 1620 with a minimum grade of C-, and University Advanced Standing; ZOOL 3100 and ZOOL 3105 strongly recommended
* Corequisite(s): ZOOL 3505

Explores the taxonomy, morphology, behavior, ecology, evolution, development, and conservation of mammals. Includes three weekly lectures and a weekly laboratory.

ZOOL 3505
Mammalogy Laboratory
1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): ZOOL 3500

Explores the taxonomy, morphology, behavior, ecology, evolution, development, and conservation of mammals. Includes three weekly lectures and a weekly laboratory. Course Lab fee of $67 for transportation, lab applies.
Course Descriptions

ZOOL 3600 (Cross-listed with: FSCI 3600) Forensic Anthropology I 3
* Prerequisite(s): ZOOL 1090, or ZOOL 2320 and ZOOL 2325, University Advanced Standing

Provides instruction on the study of human bones and their remains as physical evidence in criminal investigations. Teaches the importance of dentition in determining an age estimate of human remains. Identifies the differences among the sexes, whether the remains are human or nonhuman, and what is of forensic significance. Explains crime scene methodology and clinical applications in Forensic Anthropology. Teaches problem solving and analytical thinking in order to develop a biological profile based on population-specific data and standards. Investigates different pathological conditions and variables which must be taken into consideration when determining the cause of death.

ZOOL 3700 (Cross-listed with: EXSC 3700) Exercise Physiology 3
* Prerequisite(s): EXSC Majors: ZOOL 2320 (or 232H), ZOOL 2325 (or 232L), and EXSC 270G all with a C- or higher and (MATH 1050 or MATH 1055). PETE Majors: PETE 2700 and ZOOL 1090 with a C- or higher and (MATH 1050 or MATH 1055). All: University Advanced Standing
* Prerequisite(s) or Corequisite(s): ZOOL 2420 (or 242H), ZOOL 2425 (or 242L)

Studies acute and chronic physiological responses to exercise, as well as nutritional and environmental effects on these responses. Requires separate weekly laboratory. Canvas Course Mats $66/McGraw applies.

ZOOL 3705 (Cross-listed with: EXSC 3705) Exercise Physiology Laboratory 1
* Prerequisite(s): University Advanced Standing
* Corequisite(s): EXSC 3700

Investigates acute and chronic physiological responses to exercise, as well as nutritional and environmental effects on these responses. Provides a hands-on experience where students conduct a variety of testing procedures, as well as analyze and interpret the various physiological responses. Course Lab fee of $28 for materials applies.

ZOOL 4000 Animal Behavior 3
* Prerequisite(s): BIOL 1610 and University Advanced Standing

Examines the biological basis of animal behavior with emphasis on the underlying mechanisms and evolutionary causes of behavior. Covers first the proximate causes of behavior and then the ultimate or evolutionary causes of behavior. Includes topics such as the genetic basis of behavior, perceptual and effectual systems, ethology, neurophysiology, learning, animal communication, sexual behavior, and social systems.

ZOOL 4100 (Cross-listed with: MICR 4100) Parasitology 4
* Prerequisite(s): (BIOL 1620 or MICR 2060) with a C- or higher and University Advanced Standing

Introduces the study of parasites. Emphasizes the biology of principal groups of parasites affecting humans, livestock, and other animals, including their medical economic, and ecological significance. Emphasizes parasites causing zoonotic diseases. Includes weekly laboratory experience involving identification of parasites. Course Lab fee of $25 applies.

ZOOL 4300 Histology 4
* Prerequisite(s): [ZOOL 2320 or ZOOL 232H with a C- or higher or written instructor approval] and University Advanced Standing

For pre-professional students pursuing biomedical careers and Biology majors with a particular interest in vertebrate structure and function. Studies the microscopic structure of the body at the cellular, tissue, and organ levels. Emphasizes physical and functional relationships of various tissues in the organs of the body. Includes weekly laboratory. Course Lab fee of $35 applies.

ZOOL 4400 Pathophysiology 4
* Prerequisite(s): ZOOL 2320, ZOOL 2420, and MICR 2060 each with a minimum grade of C- and University Advanced Standing

For Biology majors with an emphasis in human physiology, pre-professional majors, and nursing students. Studies pathophysiological etiologies and mechanisms that cause disease and examines physiological adaptations and dysfunction of organs and organ systems in a disease state.

ZOOL 4500 Comparative Vertebrate Zoology 3
* Prerequisite(s): BIOL 1620 and (ZOOL 1090, ZOOL 2320, or ZOOL 3100) with a grade of C- or higher and University Advanced Standing
* Corequisite(s): ZOOL 4505

Studies the structure and function of vertebrates at the cellular, tissue, organ and systems levels. Emphasizes developmental and evolutionary comparative aspects of mammalian, avian, reptilian, amphibian, and piscian organs and systems.

ZOOL 4505 Comparative Vertebrate Zoology Laboratory 1
* Prerequisite(s): BIOL 1620 and (ZOOL 1090, ZOOL 2320, or ZOOL 3100) with a grade of C- or higher and University Advanced Standing
* Corequisite(s): ZOOL 4500

Accompanies the comparative vertebrate zoology lecture. Studies the structure and function of vertebrates at the cellular, tissue, organ and systems levels. Incorporates dissections of mammalian, avian, reptilian, amphibian, and piscian organs and systems. Course Lab fee of $40 applies.

ZOOL 4600 Ornithology 4
* Prerequisite(s): BIOL 1620 and University Advanced Standing; ZOOL 3100 and ZOOL 3105 highly recommended

Provides an in-depth study of avian evolution, systematics, developmental anatomy (wings, beaks, feathers), physiology, and social and reproductive behavior. Emphasizes an evolutionary and adaptive theme to the study of birds. Includes lectures, laboratories and field trips. Course Lab fee of $41 for transportation, lab applies.

ZOOL 4700 Advanced Anatomy 4
* Prerequisite(s): ZOOL 2320 with a minimum grade of C- and University Advanced Standing

For students interested in biomedical science careers or with a special interest in anatomy. Covers principles and techniques of anatomical investigation and specimen preparation. Provides supervised experience in human cadaver dissection, anatomic interpretation of radiographs, craniofacial, and palpation of the body. A regional dissection approach will be used in the lab. Requires problem solving and analytical thinking. Includes the theory and basic principles of various forms of diagnostic imaging, light and electron microscopy, skeletal preparation, and injection/maceration techniques. Includes weekly laboratory. Course Lab fee of $13 applies.
ZOO 4750  
Human Physiology A Cell Biology Approach  
4  
* Prerequisite(s): BIOL 3400 and University Advanced Standing  
Addresses physiological principles and functions of the human body systems at the molecular level. Emphasizes cell signal transduction involved in the body maintaining homeostasis. Gives special attention to nervous, muscular, cardiovascular, urinary and respiratory systems. Requires problem solving and analytical thinking skills to be successful in the class. Includes weekly laboratory. Course Lab fee of $25 applies.

ZOO 4780  
Neuroscience  
4  
* Prerequisite(s): ZOOL 2420 with a C- or higher and University Advanced Standing  
Covers aspects of molecular and cell biology, physiology, pharmacology, anatomy and the interplay of these and other disciplines in our understanding of the structure and function of the nervous system. Discusses neuroanatomy, developmental neurobiology, electrophysiology, membrane specializations related to signal propagation and signal transmission, neurotransmitter function and neuropharmacology, structure and function of simple neuronal circuits and complex neural networks and the plasticity of the nervous system. Incorporates discussion of journal articles related to the latest advances in neuroscience.

ZOO 4800  
Dissection Techniques  
3  
* Prerequisite(s): ZOOL 2320 and ZOOL 2325  
Covers techniques (knife, probe, finger, etc.) used to dissect human cadavers and other mammalian specimens such as horse, cow, cat, dog, and pig for use in gross anatomy labs. Reviews how to procure different types of specimens to preserve and dissect cadavers including, but not limited to, fresh specimens, preserved specimens, and frozen specimens. Introduces various techniques for suturing, plastination, and vascular casting. Emphasizes OSHA standards for laboratory safety, including how to safely use a bone saw.

ZOO 490R  
Special Topics in Zoology  
1 to 4  
* Prerequisite(s): BIOL 1620 and University Advanced Standing  
Explores and examines special topics relating to the field of zoology. Emphasizes areas of rapid growth in zoology or current importance to society. May be repeated for a total of 9 credits toward graduation.
A

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ALLRED, Jonathan (2015); Assistant Professor. Faculty, Architecture & Engineering Design; B.S., Drafting Technologies, B.S., Technology Management, Utah Valley University; M.Ed., Technology & Learning Sciences, Utah State University.

ALLRED, Steven (2008); Associate Professor. Faculty, Emergency Services; A.A.S., Fire Science, B.S., Public Emergency Services Management, Utah Valley University; A.A.S., Emergency Care and Rescue, Weber State University; M.Ed., Instructional Design, Utah State University.

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BI, Rachel (2014); Associate Professor. Department Chair, Finance & Economics; B.S., Management of Information Systems, Dalain Maritime University; M.S., Personal Financial Planning; M.B.A., Finance; Ph.D., Texas Tech University.

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BIRCH, Brian (1999); Professor. Faculty, Philosophy & Humanities; B.S., Philosophy, M.S., Philosophy, University of Utah; Ph.D., Philosophy of Religion & Theology, Claremont Graduate University.

BROWN, Kim (2008); Associate Professor. Department Chair and Faculty, Digital Media; B.S., Business Education/Administrative Systems, M.Ed., Instructional Technology, Utah State University.

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BODEN, Jeremy (2010); Associate Professor. Faculty, Behavioral Science; B.S., Psychology, Brigham Young University; M.S., Marriage and Family Therapy, Loma Linda University; Ph.D., Human Development & Family Studies, Texas Tech University.

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BOND, Calvin (2001); Associate Professor. Faculty, Chemistry; B.S., Chemistry, Ph.D., Environmental and Analytical Chemistry, University of Maryland.

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BYRD, Elaine (1992); Professor. Faculty, Elementary Education; B.S., Social Work, Ed.D., Teacher Education/Literacy, Brigham Young University; M.A., Education/Reading Specialist, Hood College, Maryland

BYRNEs, Andrew (2008); Professor. Faculty, Emergency Services; A.A.S., Fire Science, B.S., Public Emergency Services Management, Utah Valley University; M.Ed., Instructional Technology, Utah State University.

BIRD, Tyler (2015); Assistant Professor. Faculty and Faculty, Engineering Technology; A.A.S., Electrical and Automation, Utah Valley University; B.S., Electrical Engineering, Brigham Young University; M.Engr., Electrical Engineering, University of Idaho.

BOHNE, Michael (2007); Professor. Faculty and Faculty, Exercise Science & Outdoor Recreation; B.S., Physical Education, M.S., Exercise Science, Utah State University; Ph.D., Sport & Exercise Science, University of Northern Colorado.

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BARNEY, Joshua (2022); Lecturer. Faculty, Communication; B.S., Communication Studies, Dixie State University; M.A., Communication Studies, University of Nevada at Las Vegas.

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BOATRIGHT, Joshua (2022); Lecturer. Faculty, Transportation Technologies; B.S., Technology Management, Utah Valley University.

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C

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CALDIERO, Alex (2002); Senior Artist in Residence. Faculty, Philosophy & Humanities; Artist in Residence/ No degree

CALL, Jennifer (2018); Lecturer. Faculty, Secondary & Special Education; A.A.S., Family Science, Brigham Young University - Idaho; B.S., Interdisciplinary Studies, Texas A&M University; M.S., Low Incidence Disabilities & Autism, Sam Houston State University.

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CAMPBELL, Monica (2010); Associate Professor. Department Chair, Dance; B.F.A., M.F.A., Modern Dance, University of Utah.

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CARNEY, Rob (1997); Professor. Faculty, English & Literature; B.A., English, Pacific Lutheran University; M.F.A., Creative Writing-Poetry.
Eastern Washington University; Ph.D., English, University of Louisiana - Lafayette.

CARTER, Angie (2010); Sr. Lecturer. Faculty, English & Literature; B.A., M.A., English, Brigham Young University.

CHADWICK, Tyler (2018); Lecturer. Faculty, English & Literature; B.S., English, Weber State University; M.S., English, National University; Ph.D., English Teaching, Idaho State University.

CHAKRAVARTY, Debjani (2015); Associate Professor. Faculty, Behavioral Science; B.Com, Accountancy & Business Economics, University of Calcutta; M.A., M.Phil., Sociology, University of Purdue; Ph.D., Gender Studies, Arizona State University.

CHAMBERLAINE, Cory (2008); Associate Professor. Faculty, Aviation Science; A.A.S., Aviation Maintenance Technology, Utah Technical College; B.S., Psychology, University of Utah; Master of Aeronautical Science, Embry-Riddle Aeronautical University.

CHAMBERLAND, Stephen (2015); Associate Professor. Faculty, Chemistry; B.S., Biochemistry, Boston College; Ph.D., Organic Chemistry, University of California, Irvine.

CHAN, Leo (2008); Associate Professor. Faculty, Finance & Economics; B.A., Ph.D., Economics, University of Kansas.

CHANG, Kuo-Liang (2011); Associate Professor. Faculty, Mathematical & Quantitative Reasoning; B.B.A., Information Management, M.A., Philosophy, Fu-Jen Catholic University, Taiwan; M.S., Applied Math, Ph.D., Math Education, Michigan State University.

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CHAU, Cheung (2012); Associate Professor. Faculty, Music; B.M., Cello Performance, Hard Conservatory, M.M., Cello Performance, Yale School of Music; D.M.A., Cello Performance and Wind Ensemble Conducting, New England Conservatory.

CHEN, Hsiu-Chin (2004); Professor. Faculty, Nursing; B.S.N., Chung Shan Medical University; M.S., Nursing, Kaohsiung Medical University; Ph.D., Nursing, University of Utah; EdD Educational Administration, University of South Dakota.

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CHOU, Grace (2002); Professor. Faculty, Behavioral Science; B.A., Sociology, National Taiwan University; M.A., Ph.D., Sociology, University of California, Riverside.

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CLAYTON, Marty (2012); Associate Professor. Faculty, Digital Media; B.S., Landscape Architecture, The Ohio State University; M.F.A., Animation, The Savannah College of Art & Design.

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COLE, Joy (2016); Associate Professor. Faculty, Nursing; B.S., Educational Psychology, University of Central Oklahoma; M.S.N., Nursing Education, University of Oklahoma; D.N.S. (ABD), Nursing Education, University of Northem Colorado.

COTTLE, Nathan (2012); Professor. Faculty, Behavioral Science; B.S., Family Science and Human Development, M.S., Marriage, Family & Human Development, Brigham Young University; Ph.D., Human Development and Family Sciences, University of Texas.

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COX, James (2009); Associate Professor. Faculty, Construction Technologies; Faculty, Engineering; A.S., Physics, Carbon Jr. College; Bachelor of Engineering Science in Civil Engineering, Mathematics, M.E., Transportation, Brigham Young University; Ph.D., Transportation, University of Utah.

COX, Mickelle (2019); Lecturer. Faculty, Public Health; B.S., Community Health, Utah Valley University; M.P.H., Public Health, University of Utah; Ph.D. (ABD), Health Studies, Texas Woman's University.

COX, Vaughn (2011); Professional in Residence. Faculty, Finance & Economics; B.S., M.B.A., Finance, University of Utah; Ph.D., Financial Management, University of Utah.

CRABB, Amanda (2015); Assistant Professor. Faculty, Theatrical Arts for Stage & Screen; B.A., Theater Education, B.F.A., Music Dance Theater, Brigham Young University; M.M., Music, Boston Conservatory of Music.

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CRAVEN, Mariamme (1995); Professor. Faculty, Nursing; Coordinator, Nursing Graduate Studies, Nursing Graduate Studies; B.S., Nursing, Brigham Young University; M.N., Nursing, University of Phoenix; Ph.D, Nursing, Indiana State University.

CREER, Andrew (2008); Professor. Department Chair, Exercise Science & Outdoor Recreation; B.S., Physical Education, Utah State University; M.S., Exercise Science, Brigham Young University; Ph.D., Human Bioenergetics, Ball State University.

CRIDDLE, Reed (2010); Professor. Faculty, Music; B.A., Music, M.A., East Asian Studies, Stanford University; M.M., Conducting, Eastman School of Music; D.M.A., Choral Conducting, University of Michigan.

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CONDIE, Heidi (2001); Associate Professor. Faculty and Faculty, English Language Learning; B.A., German Literature, Brigham Young University; M.A., Linguistics, University of Utah.

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CRANDALL, Kallee (2021); Professional in Residence. Faculty, Secondary & Special Education; B.S., Health Education, Utah Valley University; M.S., Professional School Counselor Education, Utah State University; Ph.D. (ABD), Information Systems, Dakota State University.

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DEAN, Lukas (2014); Associate Professor. Faculty, Finance & Economics; B.A., M.S., Finance, Brigham Young University; Ph.D., Personal Finance, Texas Tech University.

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Rose, Kelly (2018); Assistant Professor. Faculty, Allied Health; A.S., Respiratory Care, United States Air Force; B.S., Health Care Administration, California Coast University; M.S., Health Education, Trident University International.

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Reynolds, Christaan (2022); Assistant Professor. Faculty, Philosophy & Humanities; B.A., Philosophy, George Washington University; M.A., Ph.D., Philosophy, Villanova University.

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SELVARAJAN, Sowmya (2012); Associate Professor. Faculty, Architecture & Engineering Design; B.E., Geoinformatics, Anna University, India; M.Eng., GIS and Remote Sensing; Notional University of Singapore; Ph.D., Geomatics, University of Florida.

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STEPHEN, Daniel (2003); Associate Professor. Faculty, Earth Science; B.S., M.S., Geology, University of Arkansas; Ph.D., Geology (Invertebrate Paleontology), Texas A & M University.

STEVENS, Michael (2010); Professor. Faculty, Biology; B.S., Conservation Biology, Brigham Young University; M.S., Ph.D., Botany, University of Wisconsin-Madison.

STEWART, Perry (2000); Professor. Faculty and Faculty, Art & Design; A.A.S., Technical Biology, Brigham Young University - Idaho; B.F.A., M.F.A., Illustration, Utah State University.

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TANG, Jingpeng (2014); Associate Professor. Faculty, Computer Science; B.S., Engineering, Southwest Jiaotong University; M.S., Engineering, China Academy of Railway Services; M.S., Computer Science, Ph.D., Computer Science, North Dakota State University.

TARANTELLI, Madeline (2019); Assistant Professor. Faculty, Music; B.A., Music Education, Florida Gulf Coast University; M.M., Music, University of Miami; D.M.A., Musical Arts, University of Missouri-Kansas City.

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TAYLOR, Devin (2016); Assistant Professor. Faculty, Biology; B.S., Behavioral Science, Utah Valley University; M.S., Psychology, Brigham Young University; Ph.D., Neuroscience, Arizona State University.

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THULIN, Craig (2006); Professor. Faculty, Chemistry; B.A., Biology, University of Utah; Ph.D., Biochemistry, University of Washington.

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TOLMAN, Sean (2011); Associate Professor. Faculty, Engineering; B.S., Ph.D., Mechanical Engineering, Brigham Young University; M.S., Mechanical Engineering, University of Utah.

TROUTT, Jack (2018); Assistant Professor. Faculty, Aviation Science; B.S., Aviation Management, M.S., Ed.D., Aviation Sciences, Oklahoma State University.

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V

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W

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