Utah Valley State College

catalog 2005-2006

President's Message

Thank you for your interest in Utah Valley State College. I commend you for your decision to further your education, and I hope you feel welcome here at UVSC. Education is the great enabler that opens doors of opportunity, and I am committed to helping you have the best educational experience available to open as many doors as possible. I believe you will find the UVSC approach to education engaging and refreshing. UVSC is a student-centered institution whose faculty and staff are committed to helping you succeed; however, the most important part of this commitment is the one you make. Take advantage of the vast number of opportunities that UVSC provides you—to learn, to grow and to prepare for meaningful lifework. Be committed to maximizing your educational experience and never stop learning.

One of the most pleasurable aspects of my job is interacting with students. Whether cheering on the Wolverines at athletic events or just chatting over a soda, it is my involvement with the students that makes working at UVSC so enjoyable. Help me get to know you; send me an e-mail (William.Sederburg@uvsc.edu), or stop me in the halls to say "Hello," offer an insight, or ask a question.

Good luck in reaching your educational goals, and welcome to the home of the UVSC Wolverines!

Sincerely,

William A. Sederburg
President

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This issue of the Utah Valley State College Catalog contains information about every facet of the institution as currently approved by the governing boards. This catalog is not to be considered a binding contract between Utah Valley State College and any student or other institution. The College reserves the right to change its role, policies, or course offerings from time to time.

The College offers programs at its several campus sites including Orem campus, Provo Airport campus, West campus, North Valley Center, Wasatch campus, and at the University Mall. The UVSC semester class schedule designates which campus site each class section is taught.

2005 ACADEMIC CALENDAR 2006

Summer Term 2005

Session I (5 weeks) ..... May 2 - June 3
Session II (7 1/2 weeks) ..... May 2 - June 21
Session III (10 weeks) ..... May 2 - July 8
Session IV (15 weeks) ..... May 2 - August 12
Session V (10 weeks) ..... June 6 - August 12
Session VI (7 1/2 weeks) ..... June 22 - August 12

Summer Term Holidays

Memorial Day ..... May 30
Independence Day ..... July 4
Pioneer Day ..... July 25

Fall Semester 2005

Faculty Return ..... August 17
UV Experience ..... August 23
Classes Begin ..... August 24
Weekend Classes Begin ..... August 27
Labor Day Holiday ..... September 5
First Block Classes End ..... October 13
Second Block Classes Begin ..... October 14
Fall Break Holidays* ..... October 20, 21
Weekend Classes Holiday* ..... October 22
Thanksgiving Holidays* ..... November 23, 24, 25
Weekend Classes Holiday* ..... November 26
Classes End ..... December 8
Study Day ..... December 9
Final Exams ..... December 12, 13, 14, 15
Fall Semester Ends ..... December 15
Grading Day ..... December 16
Weekend Classes Final Exams ..... December 17

Financial Aid Deadlines

First Priority Fall ..... May 1
First Priority Spring ..... October 1
Last Priority Fall ..... September 1
Last Priority Spring ..... January 1

Spring Semester 2006

Faculty Return ..... January 3
Classes Begin ..... January 4
Weekend Classes Begin ..... January 7
Martin Luther King Jr. Day Holiday ..... January 16
Washington and Lincoln Day Holiday* ..... February 20
First Block Classes End ..... February 24
Second Block Classes Begin ..... February 27
Spring Break Holidays* ..... March 22, 23, 24
Weekend Classes Holiday* ..... March 25
Classes End ..... April 20
Study Day ..... April 21
Weekend Classes Final Exams ..... April 22
Final Exams ..... April 24, 25, 26, 27
Spring Semester Ends ..... April 27
Grading Day ..... April 28
Commencement ..... April 28

Summer Term 2006

Session I (5 weeks) ..... May 1 - June 2
Session II (7 1/2 weeks) ..... May 1 - June 20
Session III (10 weeks) ..... May 1 - July 7
Session IV (15 weeks) ..... May 1 - August 11
Session V (10 weeks) ..... June 5 - August 11
Session VI (7 1/2 weeks) ..... June 21 - August 11

Summer Term Holidays

Memorial Day ..... May 29
Independence Day ..... July 4
Pioneer Day ..... July 24

Financial Aid Deadlines

Last Priority Spring ..... January 1
First Priority Summer ..... February 1
New Student Scholarship (first priority) ..... February 1
Continuing Student Scholarship (first priority) ..... April 1
Year-end Final Deadline ..... June 1

*NO ACCESS to UVSC computing resources during the holiday, INCLUDING Saturday and Sunday.
For questions, contact Ray Walker at walkerra@uvsc.edu

Academic Calendar

Dates marked in gray correlate to important information listed on the previous page.

April 2005

S	M	T	W	T	F	S
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May 2005

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June 2005

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July 2005

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August 2005

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September 2005

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January 2006

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February 2006

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March 2006

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April 2006

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May 2006

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June 2006

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General Information

MISSION STATEMENT

Utah Valley State College is a state college comprised of two interdependent divisions. The lower division embraces and preserves the philosophy and mission of a comprehensive community college, while the upper division consists of programs leading to baccalaureate degrees in areas of high community demand and interest.

Utah Valley State College is dedicated to providing a broad range of quality academic, vocational, technical, cultural, and social opportunities designed to encourage students in attaining their goals and realizing their talents and potential, personally and professionally. The College is committed to meeting student and community lower division and upper division needs for occupational training; providing developmental, general, and transfer education; meeting the needs for continuing education for personal enrichment and career enhancement; and providing diverse social, cultural, and international opportunities, and student support services.

Our Student Community

Students are the major focus and first priority of UVSC. All decisions are examined to determine whether the results assist students in attaining their goals and maximizing their potential and talents both personally and professionally.

Our Faculty and Staff Community

Our dedicated faculty are enthusiastic about the satisfactions of teaching and giving generously of their time to students.

UVSC is committed to maintaining an atmosphere for faculty and staff which encourages innovation, experimentation and entrepreneurial investigation relative to college programs and interests.

Our Diverse Community

UVSC strives to provide an environment which encourages a diverse population to participate in a broad range of educational opportunities, social enrichments and cultural experiences that reflect the value of diverse voices and disparate opinions.

Our Industrial Community

UVSC is committed to developing, broadening, and strengthening mutually beneficial partnerships with business and industry to provide an increasingly educated work force and to enhance economic growth and development in the community.

Our Global Community

Global awareness, understanding, and responsibility on campus and in the community are sought through internationalizing curriculum, lectures, seminars, and international exchanges.

The term "Community" is defined not only as a region to be served but also as a climate to be created.

HISTORICAL DEVELOPMENT

Utah Valley State College 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 dis-

tricts 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 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.

ACCREDITATION

UVSC is accredited by the Northwest Commission on Colleges and Universities. Accreditation was initially granted in 1969, renewed in 1984, and again in 1995. A self study and site visit was completed in Spring, 2005. Vocational accreditation was also granted UVSC in 1976 and renewed in 1990 and 1995 by the Utah State Office of Vocational Education. Other accreditations include: Association to Advance Collegiate Schools of Business (AACSB-Candidacy), American Bar Association (ABA), Accreditation Board for Engineering and Technology, Inc. (ABET), American Culinary Federation (ACF), Accreditation Standards for Dental Hygiene Education Programs; American Dental Association (ADA), Automotive Service Excellence (ASE), Federal Aviation Administration (FAA), National League for Nursing Accreditation Commission (NLNAC), Elementary and Secondary Education (USOE).

DEGREES

* *Bachelor of Applied Technology (BAT)*
* *Bachelor of Arts (BA)*
* *Bachelor of Fine Arts (BFA)*
* *Bachelor of Science (BS)*
* *Associate in Science (AS)*
* *Associate in Pre-Engineering (APE)*
* *Associate in Science in Business (ASB)*
* *Associate in Science in Nursing (ASN)*
* *Associate in Applied Science (AAS)*
* *Diploma*
* *Certificate*

Bachelor of Applied Technology
- Community Health
- Information Technology

Bachelor of Arts
- Art and Visual Communications
- Behavioral Science
  - Anthropology
  - Psychology
  - Social Work
  - Sociology
- Dance Education
- English
  - Creative Writing
  - Literary Studies
- English Education
- History
- Integrated Studies
  - Accounting
  - American Sign Language
  - Ballet
  - Ballroom Dance
  - Behavioral Science
  - Biology
  - Business Management
  - Communication
    - ~ Analytic
    - ~ Applied
  - Community Health
  - Computer Networking
  - Computer Science
  - Earth Science
  - English
  - French
  - History
  - Hospitality Management
  - Leadership
  - Military Science
  - Modern Dance
  - Multimedia Communication Technology
  - Music
  - Office Management
  - Outdoor Leadership
  - Philosophy
  - Physical Education
  - Psychology
  - Religious Studies
  - Social Sciences
  - Sociology
  - Spanish
  - Technology Management
- Movement Studies
  - Ballroom Dance
- Philosophy
- Physical Education
  - Exercise Science
  - Outdoor Recreation Management
- Spanish
- Spanish Education

Bachelor of Fine Arts
- Art and Visual Communications
  - Design/Illustration
  - Photography
  - Studio Arts
- Dance
  - Ballet
  - Modern Dance

Bachelor of Science
- Accounting
- Art and Visual Communications
- Aviation Professional Pilot
- Behavioral Science
  - Anthropology
  - Psychology
  - Social Work
  - Sociology
- Biology
- Biology Education
- Business Management
  - Entrepreneurship
  - Finance and Banking
  - General Business
  - Hospitality Management
  - International Business
  - Marketing
- Business/Marketing Education
- Chemistry
- Chemistry/Physics Education
- Community Health
  - Community Health Education
  - Health Services Administration
- Computer Engineering
- Computer Science
  - Computer Engineering
  - Computer Networking
  - Computer Science
  - Software Engineering
- Criminal Justice
- Early Childhood Education
- Earth Science
  - Earth Science
  - Environmental Management
- Earth Science Education
- Elementary Education
- English
  - Creative Writing
  - Literary Studies
- English Education
- History Education
- Hospitality Management
- Information Technology
  - Administrative Information Management
  - E-Commerce
  - Information Technology
  - Training Design and Development
- Integrated Studies
  - (see BA for list of emphases)
- Mathematics
- Mathematics Education
- Multimedia Communication Technology
- Nursing
- Paralegal Studies
- Philosophy
- Physical Education and Recreation

- Exercise Science
- Outdoor Recreation Management
- Physical Education Teacher Education
- Physics
- Public Emergency Services Management
- School Health Education
- Technology Management
  - Air Conditioning and Refrigeration Technology
  - Apprentice
    - ~ Carpenter Union (JATC)
    - ~ Electrical Construction
    - ~ Electrical Union (JATC)
    - ~ Heat, Ventilation & Air Conditioning
    - ~ Industrial Maintenance
    - ~ Lineman
    - ~ Line Meter
    - ~ Lineman Substation
    - ~ Plumber
    - ~ Sheet Metal
  - Art and Visual Communications
  - Automotive Technology
  - Aviation Science
  - Building Construction and Construction Management
  - Building Inspection Technology
  - Cabinetry and Architectural Woodwork
  - Collision Repair Technology
  - Diesel Mechanics Technology
  - Drafting Technology
  - Electrical Automation and Robotics Technology
  - Electronic and Computer Technology
  - Facilities Management
  - Fire Science
  - Lineman Technology
  - Multimedia Communication Technology
  - Welding Technology
  - Others from regionally accredited institutions offering an AAS degree

Minors

- Accounting
- American Studies
- Business Education
  - Basic Business
  - Business Information Technology
  - Marketing
- Business Information Technology
- Business Management
- Chemistry
- Community Health Education
- Criminal Justice
- Deaf Studies
- Earth Science
- English Education
- English Literary Studies
- History
- Mathematics
- Paralegal Studies
- Philosophy
- Physical Education
- Physics
- Religious Studies
- School Health Education
- Spanish
- Technical Writing

Baccalaureate Programs under Development

- Forensic Science
- Information Systems
- Music Education
- Music Performance
- Political Science
- Secondary Education (Additional)

Associate in Arts/Science

The Associate in Arts and Associate in Science are the general studies transfer degrees which, when students complete, are accepted throughout the system as satisfying all general education requirements. Students who have a pre-major area and who have declared their intent to transfer are advised carefully so that courses are taken in their pre-major area that also fulfill undergraduate course requirements at transfer institutions.

The following pre-majors are available in an Associate in Arts/Science degree:

- Accounting
- Administrative Information Management
- Art and Visual Communications
  - Fine Arts
  - Graphics/Commercial Art
- Automotive Technology
- Aviation Science
- Behavioral Science
- Biology
- Building Construction and Construction Management
- Business
- Cabinetry and Architectural Woodwork
- Communication
- Community Health
- Computer Science
- Criminal Justice
- Dance
- Drafting Technology
- Early Childhood Education
- Electrical Automation and Robotics Technology
- Electronic and Computer Technology
- English
  - Technical Writing Specialization
- Fire Science
- History and Political Science
- Hospitality Management
- Humanities
- General Academics
- Information Technology
- Integrated Studies
- Mathematics
- Music
- Paralegal Studies
- Philosophy
- Physical Education and Recreation
  - Physical Education
  - Recreation
- Physical Science
- Pre-Elementary Education
- Pre-Engineering
- Theater

Associate in Pre-Engineering

Associate in Science in Business

Associate in Science in Nursing

Associate in Applied Science

- Accounting
- Administrative Information Support
- Air Conditioning and Refrigeration Technology
- Apprentice
  - Aircraft Mechanics
  - Carpenter Union (JATC)
  - Diesel Mechanics
  - Electrical Construction
  - Electrical Union (JATC)
  - Heating, Ventilation & Air Conditioning
  - Industrial Maintenance
  - Lineman
  - Lineman Meter
  - Lineman Substation
  - Plumber
  - Sheet Metal
- Art and Visual Communications
  - Design/Illustration
  - Graphic Design
  - Photography
- Automotive Technology
- Aviation Science
- Building Construction and Construction Management
- Building Inspection Technology
- Business Management
- Cabinetry and Architectural Woodwork
- Collision Repair Technology
  - Collision Repair
  - Custom Street Rod
- Computer Science
  - Computer Engineering
  - Computer Networking
  - Computer Science Programmer
  - Web Development Programmer
- Culinary Arts
- Dental Hygiene
- Diesel Mechanics Technology
- Drafting Technology
- Electrical Automation and Robotics Technology
  - Electrical Automation
  - Semiconductor Instrumentation and Maintenance
- Electronic and Computer Technology
  - Electronic and Computer Technology
  - Integrated Circuit Layout and Design
  - Pre-Nanotechnology
- Facilities Management

- Fire Science
  - Fire Officer
  - Firefighter/Paramedic
- Hospitality Management
- Information Technology
- Lineman Technology
- Multimedia Communication Technology
- Welding Technology

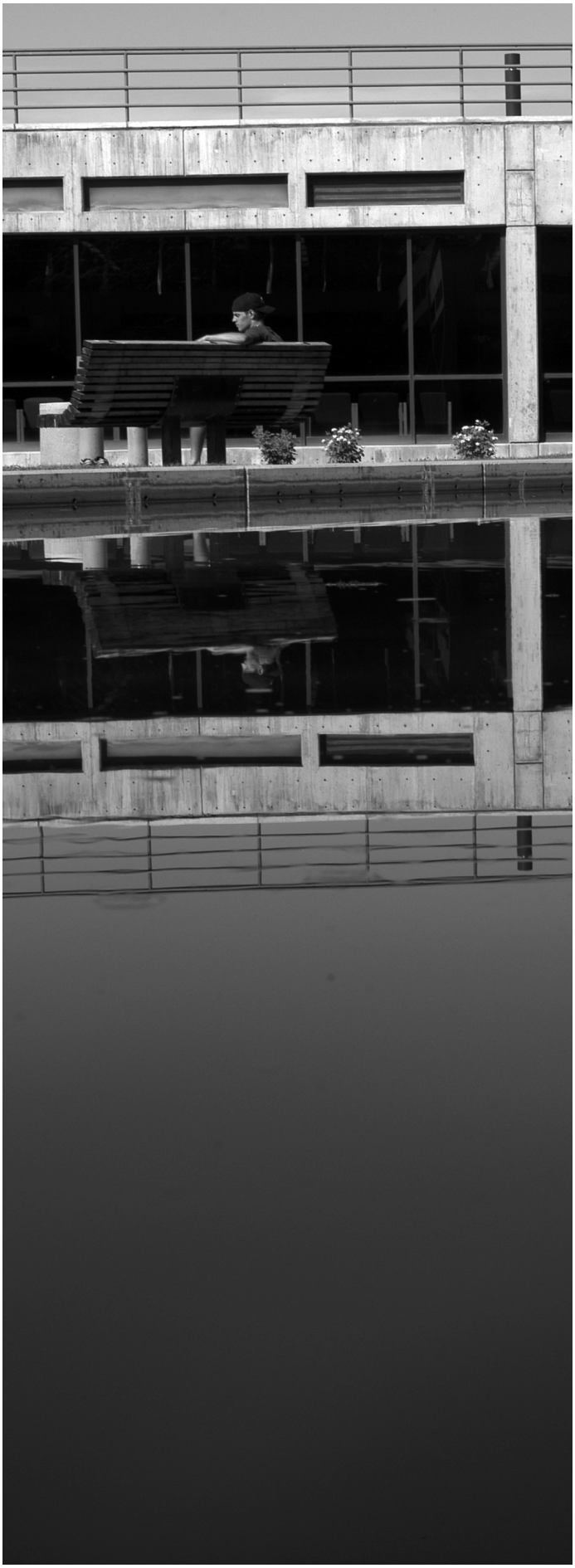
Diploma Programs

- Automotive Technology
- Cabinetry and Architectural Woodwork
- Collision Repair Technology
  - Collision Repair
  - Custom Street Rod
- Diesel Mechanics Technology
- Electronic and Computer Technology
- Lineman Technology
- Welding

One-Year Certificate Programs

- Accounting
- Administrative Support
- Art and Visual Communications
- Automotive Technology
- Building Construction
- Building Inspection Technology
- Business Management
- Cabinetry & Architectural Woodwork
- Collision Repair Technology
- Computer Systems Maintenance
- Diesel Mechanics Technology
- Early Care and Education
- Firefighter Recruit Candidate Certificate
- Network Specialist
- Paramedic
- Programmer

All statements herein are believed to be true and correct at time of publication. Utah Valley State College reserves the right to make necessary changes, deletions, or revisions.



Admissions

ADMISSIONS OFFICE

Office: BA 106
Telephone: (801) 863-8466

Admissions Policy

UTAH VALLEY STATE COLLEGE WILL MAINTAIN AN "OPEN DOOR" POLICY, ADMITTING ALL APPLICANTS WHOSE QUALIFICATIONS INDICATE THEY MAY BENEFIT FROM THE INSTRUCTIONAL PROGRAMS OFFERED AND ARE GENERALLY BEYOND THE AGE OF HIGH SCHOOL ENROLLMENT.

Admissions Procedure

UVSC IS COMMITTED TO THE CONCEPT OF EQUAL OPPORTUNITY WITHOUT REGARD TO RACE, COLOR, DISABILITY, RELIGION, AGE, SEX, NATIONAL ORIGIN, OR OTHER LEGALLY IMPERMISSIBLE FACTORS.

Age Exception

Applicants under 18 years of age, whose age group will not have graduated from high school prior to the enrollment period for which admission is sought, need to submit a high school permission form from the Center for High School Studies office with their application. Applicants under 16 years of age must apply for exception to policy through the office of the Director of Admissions.

Enrollment

Being admitted to a specific major does NOT ensure enrollment. In majors with limited openings (or seats), enrollment is based on a "first come, first served" procedure, assuming prerequisites have been satisfied.

Some programs or majors of the College are accredited by professional or technical organizations which may recommend certain minimum standards for entrance into the program. Other programs may require prerequisite skills or knowledge that are specific to entry-level courses required for that major.

Admissions Steps

To be officially admitted to the College, an applicant must submit the following to the Office of Admissions:

1. *Application for Admission. For immediate response apply on-line at: www.uvsc.edu/apply or apply by paper application.*

2. *Nonrefundable, one time only, $30 application fee accompanying first Application for Admission. ($100 nonrefundable fee for international applicants). Application deadline: Fall Semester, Aug. 15; Spring Semester, Dec. 20.*

3. *An ACT/SAT test score must be submitted prior to registration for classes.*

In addition the College requests official transcripts of all previous college and high school work and if applicable, GED or other certification of high school completion.

Acceptance and resident status will be determined by the Admissions Office. A declaration of major is accomplished through the Application for Admission. Students desiring to change their majors after acceptance to the College are required to change their major through their academic advisor.

Assessment

All first-time students are required to satisfy the College's assessment requirement prior to being classified as "matriculated" (degree seeking) into any major of the College. Individual courses (e.g. Mathematics, English) may require a passing score on one or more subtests of the

Assessment Battery as a course prerequisite for enrollment.

Resident Classification

Utah Valley State College will determine student residency in accordance with Utah Law and the Policy of the State Board of Regents.

Resident tuition applies to those permanent residents of the State of Utah.

Nonresident students should note that residency does not change automatically. Proper documentation must be filed with Admissions for review and approval before residency status will be changed.

Applicants for residency classification should allow two weeks for a review and determination of his/her residency.

Applications for residency for any given semester must be received before the end of the first week of instruction. A change in residency classification after the first week of a given semester will not take effect until the next term. Residency changes are not retroactive.

Returning Students

Students returning to UVSC after a break of one year or more are required to reapply for admission. No admission fee will be assessed to returning students.

Veterans

Veterans considering enrollment are encouraged to contact the UVSC Veterans Office (BA 114) during the admissions process to receive assistance in planning programs of study and applying for educational benefits.

Senior Citizens

Utah residents, age 62 and over, may enroll on an audit basis in any College class offered (as space is available) by completing an Application for Admission and paying the one time application fee. The Admissions Office will issue an audit form to be signed by the instructor no earlier than the first day of class. A $20 registration fee, which covers all costs except books and special lab and course fees, is required each semester. This policy does not apply to specialized workshops.

Senior citizens desiring credit for courses taken should register according to regular admissions policies and procedures.

International Students: F-1 immigration Student Status

The College is authorized under federal law to enroll non immigrant alien (international) students. An international student is defined as an individual who is legally domiciled in a country other than the United States of America at the time of application for admission to UVSC. International students must be 18 years or older for admittance.

I-20 Certificate of Eligibility

This document issued by the designated international student admissions officer to international students with non immigrant status, is to be used to apply for an F-1 Visa to the United States.

Only persons who do not intend to remain permanently in the United States and who have adequate financial resources are eligible for such status.

Form I-94

The I-94 is issued to international students at the port of entry to the United States. Normally the form is stapled to each individual's passport. This card must be presented prior to registration.

Educational Costs

An estimate of an academic school year costs, as determined by UVSC, is stated on the I-20 form prior to issuance to the student. The American Consul uses this information to determine the adequacy of the applicant's financial resources.

Contract of Support

UVSC requires international applicants (with their sponsors) to submit a "Contract of Support" for an International Student at UVSC. The contract states that a sponsor is legally bound to financially support the applicant. Upon satisfactory completion of other admission requirements, the contract is returned to the prospective student with the I-20, which may then be presented to an American Consul or Embassy to gain an F-1 Visa.

Transcript of Credits

This is an official copy of the permanent academic record of the student's high school (12th grade equivalency) and/or college grades. It is used by UVSC to determine admission qualifications.

TOEFL or Compass ESL

The TOEFL (Test of English as a Foreign Language) is a confidential examination given through procedures designed to protect its security before, during, and after its administration. Scores over one-year old are not acceptable. Information for TOEFL may be obtained by writing:

Test of English as a Foreign Language
(TOEFL)
Box 899
Princeton, NJ 08541
U.S.A.

or by contacting the American Consul. A minimum score of 500 written test or 173 computer based test for TOEFL or 90 for Compass ESL is required for admittance to an associate level program at UVSC. No scores are needed for admittance to the Intensive English program.

Note: Assessment tests are administered to all incoming students. The results of that exam determine first semester classes.

Scholarship and Financial Aid

International students are not eligible for scholarships or financial aid from the United States Government.

Academic Load

An international student is required to carry a minimum of 12 hours of credit that apply toward a major each academic semester of fall and spring. Summer is optional unless it is the student's first term at UVSC or the student has attended school for more than one year and uses a semester other than summer as a vacation. The 12 credit-hour requirement may not include repeated classes or audit classes.

Hospitalization and Health Insurance

UVSC recommends that international students acquire appropriate insurance while in school. Information can be obtained at the UVSC Student Health Services Office.

Tuberculin Skin Test

Each international student must independently acquire a Tuberculin Skin Test after entering the United States. This may be obtained at the Student Health Services office on campus or the Utah County Health Department. Written results must be submitted to Student Health Services prior to registering for classes. An international student transferring from another institution within the United States may present written results from a previous skin test.

Admissions to Baccalaureate Degree Programs

Utah Valley State College currently offers Bachelor of Science/Arts Degrees in a variety of areas. Admission to upper division programs at Utah Valley State College will be based upon successful completion of specific department criteria. Formal application must be made for admission to each baccalaureate program through the appropriate department. See appropriate departmental section(s) for

detailed admission information.

Registration, Tuition and Fees

REGISTRATION OFFICE

Office: BA 106
Telephone: (801) 863-8468

REGISTRATION PROCEDURES

A schedule of classes is published every semester/term in advance of each registration period, indicating courses offered, times, instructors, and room assignments. Registration procedures are available online at www.uvsc.edu/.

Special Notice to Students

It is the responsibility of the student to verify registration accuracy and completeness. Official receipt issued to the student by the cashier is the official record of registration.

Change of Registration (Add/Drops)

After initial registration, students may modify their schedules by adding, dropping, or changing to audit. The semester class schedule specifies the time period when changes may be made.

Beginning the first day of the semester/term students may add open classes without a fee or approval. After the first week of class students wishing to add a class must obtain instructor approval on an Add Card and pay the corresponding fee. Students may not attend classes for which they are not officially enrolled.

The add fee may be waived for department-recommended changes.

The Add Card may be obtained at Registration. After obtaining the instructor's signature and department approval, the student pays the fee at the Cashier window and returns the card to Registration. Full semester classes may only be added through the first three weeks of the semester.

Students may withdraw from full semester classes up to the end of the fourth week of the semester. Classes may be dropped and not appear on the transcript through the third week of the semester. After the third week, a grade of "W" will appear on the transcript for all official withdrawals. Withdrawing from a course after the fourth week 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 will 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.

Block classes may be withdrawn through the second week of class. The semester class schedule includes deadline dates for other sessions.

Students who add classes must finalize the process through the Cashier to pay for any additional credit.

Administrative Drop

Students may be dropped from classes by the administration if they: 1. Register, but do not attend equipment-related courses within the first three days of a semester, 2. Register for courses for which they have not completed prerequisites, 3. Default on short-term loans, or, 4. Neglect to pay tuition and fees for any given semester/term by the end of the third week. Such changes to a student's schedule could affect financial aid, scholarships, and/or refunds.

Auditing

Students may choose to register for classes on an audit basis (register for classes as a "listener" without receiving credit). Tuition, registration times

and add/drop criteria are the same as for regular class registration. For an audit, the student must complete and sign an "audit form." Audits may only be requested through the third week of the appropriate semester or block. Students may not change from audit to credit status.

Classes appear as "AU" (audit) on the official transcript. Since they are noncredit, they do not count in the credit load for foreign students, veterans, students receiving financial aid, etc.; nor do they fill graduation requirements.

Students may not challenge courses that they have audited. An incomplete grade may not be made up by repeating the class for audit.

Noncredit Continuing Education Unit (CEU)
The Division of Continuing Education offers a variety of courses and programs for life-long learning. Many of these programs are offered under a noncredit option. The Continuing Education Unit (CEU) is a means for measuring and recording noncredit study.

TUITION AND FEES POLICY

Tuition and student fees are established by the Utah State Board of Regents. Tuition and other charges as listed in the catalog and other UVSC publications are subject to change without notice. Students are advised to consult current information at **www.uvsc.edu/. The College policy regarding payment of tuition and fees is that all tuition and fees are due and payable to the Office of Business Affairs (Cashier) at the time of registration.** Checks for an amount larger than the total tuition and fees due will not be accepted.

This policy applies to Early Registration, Open Registration, and Late Registration.

Early Registration not paid for or covered by Financial Aid by the published payment deadline date will be dropped.

Students who default on all or any portion of their tuition and fees will be suspended from further registration and records activity at the College until their account is paid in full.

The registration and records activity suspension will be carried forward to perpetuity until all past due tuition and fees are paid in full.

Past due tuition accounts may be reported to the Credit Bureau and/or turned over to an outside collection agency for collection.

Tuition Surcharge Policy

A student who takes course work in excess of 135% of the credits required for graduation may be charged for those excessive credit hours at the same rate as for nonresident students. For further information on this policy, contact the Graduation and Transfer Services

2005-2006 TUITION & GENERAL FEE SCHEDULE

RESIDENT				NON-RESIDENT			
Hours	Tuition	Fees	Total	Hours	Tuition	Fees	Total
0.5	140.00	26.00	166.00	0.5	490.00	26.00	516.00
1.0	190.00	41.00	231.00	1.0	665.00	41.00	706.00
1.5	240.00	56.00	296.00	1.5	840.00	56.00	896.00
2.0	290.00	71.00	361.00	2.0	1,015.00	71.00	1,086.00
2.5	340.00	86.00	426.00	2.5	1,190.00	86.00	1,276.00
3.0	390.00	101.00	491.00	3.0	1,365.00	101.00	1,466.00
3.5	440.00	116.00	556.00	3.5	1,540.00	116.00	1,656.00
4.0	490.00	131.00	621.00	4.0	1,715.00	131.00	1,846.00
4.5	540.00	146.00	686.00	4.5	1,890.00	146.00	2,036.00
5.0	590.00	161.00	751.00	5.0	2,065.00	161.00	2,226.00
5.5	640.00	176.00	816.00	5.5	2,240.00	176.00	2,416.00
6.0	690.00	191.00	881.00	6.0	2,415.00	191.00	2,606.00
6.5	740.00	206.00	946.00	6.5	2,590.00	206.00	2,796.00
7.0	790.00	221.00	1011.00	7.0	2,765.00	221.00	2,986.00
7.5	840.00	221.00	1061.00	7.5	2,940.00	221.00	3,161.00
8.0	890.00	221.00	1111.00	8.0	3,115.00	221.00	3,336.00
8.5	940.00	221.00	1161.00	8.5	3,290.00	221.00	3,511.00
9.0	990.00	221.00	1211.00	9.0	3,465.00	221.00	3,686.00
9.5	1040.00	221.00	1261.00	9.5	3,640.00	221.00	3,861.00
10.0	1090.00	221.00	1311.00	10.0	3,815.00	221.00	4,036.00
10.5	1140.00	221.00	1361.00	10.5	3,990.00	221.00	4,211.00
11.0	1190.00	221.00	1411.00	11.0	4,165.00	221.00	4,386.00
11.5	1240.00	221.00	1461.00	11.5	4,340.00	221.00	4,561.00
12.0	1290.00	221.00	1511.00	12.0	4,515.00	221.00	4,736.00
12.5	1290.00	221.00	1511.00	12.5	4,515.00	221.00	4,736.00
13.0	1290.00	221.00	1511.00	13.0	4,515.00	221.00	4,736.00
13.5	1290.00	221.00	1511.00	13.5	4,515.00	221.00	4,736.00
14.0	1290.00	221.00	1511.00	14.0	4,515.00	221.00	4,736.00
14.5	1290.00	221.00	1511.00	14.5	4,515.00	221.00	4,736.00
15.0	1290.00	221.00	1511.00	15.0	4,515.00	221.00	4,736.00
15.5	1290.00	221.00	1511.00	15.5	4,515.00	221.00	4,736.00
16.0	1290.00	221.00	1511.00	16.0	4,515.00	221.00	4,736.00
16.5	1290.00	221.00	1511.00	16.5	4,515.00	221.00	4,736.00
17.0	1290.00	221.00	1511.00	17.0	4,515.00	221.00	4,736.00
17.5	1290.00	221.00	1511.00	17.5	4,515.00	221.00	4,736.00
18.0	1290.00	221.00	1511.00	18.0	4,515.00	221.00	4,736.00
18.5	1335.00	221.00	1556.00	18.5	4,672.00	221.00	4,893.00
19.0	1380.00	221.00	1601.00	19.0	4,829.00	221.00	5,050.00
19.5	1425.00	221.00	1646.00	19.5	4,986.00	221.00	5,207.00
20.0	1470.00	221.00	1691.00	20.0	5,143.00	221.00	5,364.00
20.5	1515.00	221.00	1736.00	20.5	5,300.00	221.00	5,521.00
21.0	1560.00	221.00	1781.00	21.0	5,457.00	221.00	5,678.00
21.5	1605.00	221.00	1826.00	21.5	5,614.00	221.00	5,835.00
22.0	1650.00	221.00	1871.00	22.0	5,771.00	221.00	5,992.00
22.5	1695.00	221.00	1916.00	22.5	5,928.00	221.00	6,149.00
23.0	1740.00	221.00	1961.00	23.0	6,085.00	221.00	6,306.00
23.5	1785.00	221.00	2006.00	23.5	6,242.00	221.00	6,463.00
24.0	1830.00	221.00	2051.00	24.0	6,399.00	221.00	6,620.00
24.5	1875.00	221.00	2096.00	24.5	6,556.00	221.00	6,777.00
25.0	1920.00	221.00	2141.00	25.0	6,713.00	221.00	6,934.00

Equal Tuition Payment

Application Fee $30

Late Application Fee.....$75

Foreign Student Admission Fee $100

Graduation Fee.....$20

Late Graduation Fee $25

Special Lab and Course Fees. (see online class schedule)

Challenge Credit Fee ..... $5 per credit

Challenge Credit Form..... $15

Add Card Fee..... $5

For each credit hour over 25 -
Resident $90
Non-resident $314

Baccalaureate Fee $20

Late Registration Fee -
First three weeks..... $25
After the third week $50

Office.

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

Semester

Through third week of instruction	*100 percent*
Beginning fourth week of instruction	*0 percent*

Thereafter, the refund periods for instructional cycles other than the semester are extrapolated from the above schedule.

A Petition to the Refund Policy Form can be obtained from the office of the Registrar.

Check Cashing Procedures

The College will not accept two-party checks. Checks written to UVSC must have the writer's social security number, local address, and phone number on the face of the check. Two forms of identification are required at all campus check-cashing locations.

Checks written that later have a "stop payment" placed upon them will be considered as "dishonored checks".

Checks written up to $5 over the amount of the purchase may be cashed at the Bookstore. All other campus locations accept checks for amount of purchase (or payment) only.

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

Students who have current dishonored checks will not be allowed to receive grades and/or transcripts, make changes in registration, register for future semesters, graduate, nor pick up checks that are disbursed by UVSC, which may include but are not limited to financial aid, guaranteed student loans, tuition refunds, and payroll checks.

Special Lab and Course Fees

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

Late Registration Fee

A $25 late registration fee is charged beginning the first day of the semester/term and continues for three weeks. A $50 late fee is charged after the third week.

Add Fee

An Add Card may be obtained at Registration. Beginning the second week of instruction, after obtaining the instructor's signature and departmental approval, the student pays a $5 fee at the cashier and returns the card to Registration. Add cards will be accepted through the third week of the semester. Classes will not be added after this time.

Financial Aid

A varied and comprehensive program of financial assistance is available to all students at the College. The general qualifications include acceptable scholastic standing and financial need. Citizens and permanent residents of the United States may apply for assistance under these programs regardless of race, color, religion, age, sex, national origin, pregnancy-related condition, handicap, or status as a veteran.

INTRODUCTION

Financial aid is designed to bridge the gap between the costs of attending the College and what students and their families are expected to pay. Estimated average costs for the academic year (two semesters) are listed below. (Note: A "commuter" is a student who resides with family; a "resident" is a student who, for tuition purposes, is a resident of Utah; and a "nonresident" is a student who comes from another state and pays nonresident tuition.) Tools and lab fees vary with each program and are not included in the costs listed below.

	Commuter	Resident	Nonresident
Books & Supplies	1,458	1,458	1,458
Living Expenses	4,896	8,606	8,606

FINANCIAL AID APPLICATION PROCEDURE

To be considered for financial aid a student must meet the following conditions:

1. Submit an Application for Admission and be admitted with a high school diploma, or the recognized equivalent, or (if 18 years of age or older) have passed a test approved by the U.S. Department of Education. For more information contact the Admissions Office or the Assessment Center.
2. Complete the UVSC Financial Aid Data Form at www.uvsc.edu and return it to the Financial Aid Office.
3. Complete the Free Application for Federal Student Aid (FAFSA), either the electronic (www.fafsa.ed.gov) or paper version, and send it to the Federal processor. Be certain the Financial Aid Office has record of the FAFSA.
4. Check "UV On-line Services" at www.uvsc.edu for status of application.
5. Submit to the Financial Aid Office all requested verification information.
6. Meet all other eligibility requirements.

Note: 1st Priority deadline is May 1. To have financial aid to pay registration costs before school begins, an applicant must have an accurate application completed by this date. Additional information and help are available through the Financial Aid Office.

APPLICATION DEADLINES

February 1 Fall and Spring Scholarship application deadline for new UVSC students for all scholarships.

April 1 — Fall and Spring Scholarship application deadline for continuing UVSC students for all scholarships.

May 1 — Federal/State financial aid for Fall Semester 1st priority processing for registration.

December 15 — Spring only Scholarship deadline for new or continuing students.

June 15 — Federal/State financial aid final processing for end of program year.

THE FINANCIAL AID AWARD

(see endnotes at the end of this section)

With the exception of most scholarships, financial aid is awarded on the basis of "need." Financial need is determined by analyzing the Institutional Data Form and the needs analysis information reported in the Free Application for Federal Student Aid (FAFSA). These forms are available at the Financial Aid Office or on our web site.

If all necessary qualifications have been met and financial need is demonstrated, assistance from scholarships, grants, loans, or part-time employment may be offered. As long as money is available a "package" of aid, funds from a combination of different programs, is awarded. All awards are granted for the academic year. Application must be made each year.

Students will be notified about the decisions regarding their application when processing is complete. Notice of your financial aid award will be sent to your UVSC email account.

TYPES OF FINANCIAL AID

Grants

FEDERAL PELL GRANTS (FPELL) provide non-repayable aid for eligible students. The awards range between approximately $400 and $4,050 per year. The amount of the award is based upon the family contribution, the cost of attendance, and a payment schedule issued by the U.S. Department of Education.

FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS (FSEOG) make additional funds available to students with unusual need. This grant is usually combined with other forms of aid and is also non-repayable.

LEVERAGING EDUCATIONAL ASSISTANCE PARTNERSHIP GRANTS (LEAP), available to Utah residents only, are also awarded to students with substantial financial need. This award is usually combined with other forms of financial assistance and is also non-repayable.

UTAH CENTENNIAL OPPORTUNITY PROGRAM FOR EDUCATION (UCOPE) GRANTS are limited to eligible Utah residents only, and are usually combined with other financial aid.

Loans

FEDERAL PERKINS LOANS (FPL) are excellent long-term loans. Although the money must be repaid, no payments need be made and no interest is charged until nine months after the borrower ceases to be enrolled at least half-time. When interest begins to accrue it is at the rate of 5% per year (subject to change). A minimum monthly payment of $40 (subject to change) is required. Under special circumstances payment may be deferred for a time. Loan-counseling is required of every student who receives a loan.

FEDERAL STAFFORD LOANS (FSL) are the first of the Federal Family Education Loan Program options which enable students to borrow from a bank, credit union or other participating lender. The amount that may be borrowed depends on the borrower's need and year in school. The interest rate on new loans is variable, subject to change every July 1, but will not exceed 8.25% for new borrowers. The minimum monthly payment, which begins 6 months after the borrower ceases to be enrolled at least half-time, is $50 (subject to change). Loan-counseling is required of every student who receives a loan.

UNSUBSIDIZED FEDERAL STAFFORD LOANS (UFSL), another of the Federal Family Education Loans, are available from private lenders to any student who meets the general eligibility criteria. Subject to annual limits, the UFSL may not exceed the cost of education minus financial aid. The variable interest rate for new loans, which may not exceed 8.25%, is adjusted each year. Interest accrues during in-school, grace, and deferment periods. It may be paid monthly or quarterly, or added to the principal amount of the loan.

FEDERAL PARENT LOANS FOR UNDERGRADUATE STUDENTS (FPLUS) are the third of the Federal Family Education Loan Program alternatives. Parents of dependent students enrolled at least half-time may borrow from a bank or credit union. The variable interest rate for new loans is adjusted annually, with the maximum being 9%. Not based on need and subject to limits, the amount of the FPLUS may never exceed the student's cost of attendance (as determined by the College) minus the student's financial assistance. Repayment of principal (unless deferred) and interest begins 60 days after the loan is disbursed. The lender has more information.

SHORT-TERM TUITION PAYMENT PLANS allow an eligible student to defer a portion or all of the tuition and fees. Instead of interest, an application fee is charged. To obtain the short-term tuition payment plan a student must make a down payment of 1/3 of the total tuition and fee costs and/or have the note secured by a credit worthy co-signer. The remaining balance of the charges must then be paid before the end of the term for which the note was made.

Student Loan Limits

Annual and aggregate limits are prescribed within the Federal aggregate limits below. The maximum aggregate limit allowed by Federal law is $23,000 for an undergraduate program of study. Following are the annual loan limits for Federal Stafford (Subsidized and Unsubsidized) Loans.

Student Loan Limits

Loan Level	Credit Hours	Stafford Annual Limit	Perkins Annual Limit
1	0 - 29.9	$2,625	$3,000
2	30 - 96	$3,500	$3,000
3*	97 - 192	$5,500	$3,000
Aggregate Total		$23,000	$20,000

*Must be matriculated into a four-year program. Loan offered up to 192 credits.

Students may request an "additional unsubsidized" loan above the annual limits. However, the total amount of Perkins and/or Federal Stafford plus Additional Unsubsidized loans cannot exceed the student's cost of attendance.

Work

FEDERAL WORK-STUDY (FWS) funds provide opportunities for students who can demonstrate need and want to work part-time. Salaries are usually equal to current minimum wage. The total amount a student may earn is determined on the basis of need.

UTAH CENTENNIAL OPPORTUNITY PROGRAM FOR EDUCATION (UCOPE) WORK-STUDY is for eligible Utah residents and usually combined with other financial aid.

HOURLY CAMPUS EMPLOYMENT is available on a limited basis. At their own expense some departments hire students without regard to financial aid eligibility. For more information check with Career Employment Services.

Scholarships

Utah Valley State College offers a comprehensive and varied scholarship program. Scholarships are provided by State and College funding, alumni, and private donors and are awarded on the basis of academic excellence and promise of future achievement. Financial need is a factor for some awards. Additionally, students who have acquired skills may be

awarded for their talents.

There are additional facts to know about scholarships. Utah residency is required for all except Academic, Athletics, Student Government, Preforming Arts, and privately funded. Certain awards can be placed on hold. If a student is offered more than one scholarship, it may be necessary to indicate a preference. Scholarships are offered to New and Continuing students.

New UVSC Students, those students who have never attended UVSC (including transfers and high school concurrent enrollment) will automatically be considered for academic scholarships if they are admitted to UVSC and they have current official high school transcripts with ACT scores on file with the Admissions Office by February 1st for Fall & Spring two-semester awards; December 15 for Spring one-semester-only awards. Please see "scholarships" at www.uvsc.edu/finaid for more information.

Continuing UVSC Students, those who have completed at least 12 total post-high-school UVSC credits since enrolling at the College after high school graduation, may apply for scholarships. Applications must be postmarked by: April 1 for Fall & Spring two-semester awards; December 15 for Spring one-semester-only awards. Please see "scholarships" at www.uvsc.edu/finaid for detailed information.

ATHLETIC SCHOLARSHIPS are awarded to students who are selected by the coaching staff for specific athletic teams. Tryouts are required. Contact Athletics Department 801-863-8998 for more information on the different sports/
programs or for the specific head coach(es).

PRIVATELY FUNDED SCHOLARSHIPS are funded through generous donations from individuals and organizations. Recipients are selected through a joint process between the UVSC Gifts and Grants Committee and the individuals and organizations. All awards are subject to available funding and donor specified criteria. Contact the Scholarship Desk at 801-863-8443.

ROTC SCHOLARSHIPS are awarded to new and continuing UVSC students interested in pursuing a demanding, exciting, and growth-oriented career with the US Army through the Reserve Officer's Training Corps (ROTC); cadets continue to serve as commissioned officers in the active armed forces, National Guard, or the Reserves. An interview is required. Contact the Enrollment Officer at 801-378-7725 or 801-863-8295.

PRIVATELY FUNDED SCHOLARSHIPS are awarded to residents and non-residents, New and Continuing UVSC students seeking a pre-major/majors in one of the seven schools. These scholarships are available as a result of the generous donations from individuals and organizations; all awards are subject to available funding. Application deadlines are as follows: "New UVSC Student" Scholarship Application forms are due no later than February 1. "Continuing UVSC Student" Scholarship Application form are due not later than April 1. Students are required to apply for Federal Financial Aid by completing the FAFSA, for need based privately funded scholarships only.

UTAH CAREER TEACHING SCHOLARSHIPS are offered to continuing UVSC education-major students who are planning to certify as teachers and to teach in the State of Utah. The award covers regular tuition and fees. To be considered for this scholarship, applicants must: (1) be a Utah resident; (2) have a minimum cumulative UVSC GPA of 3.0; and (3) have completed at least 25 UVSC credits hours. Applications must be submitted no later than March 1. Contact the Education Department at 801-863-8527

SUMMARY OF SELECT FINANCIAL AID POLICIES

Satisfactory Academic Progress
(see endnote at the end of this section)

To be eligible to receive or continue to receive financial aid a student must be enrolled in the College and be in good standing. Being in good standing means complying with accepted enrollment and behavior standards and practices of the College and the Financial Aid Office.

Section 484 of the Federal Higher Education Act requires that a student also be making satisfactory academic progress-qualitative and quantitative—to be eligible to receive or continue to receive Title IV financial assistance. "Neither the Secretary of Education nor an institution has the authority to waive this requirement for any student or group of students."

Because the required academic progress standard is intended to measure advancement toward a degree, diploma or certificate objective, federal guidelines state it "must be cumulative and it must include any periods of enrollment". The standard must also be applied consistently to everyone, recipient as well as applicant. To be eligible, then, "a student must be maintaining satisfactory progress regardless of whether [he/she] had previously received Title IV aid." So all terms of enrollment, not just those during which financial aid was received, will be considered when evaluating the academic progress of any financial aid applicant.

The "quality" of academic progress is measured by the Grade Point Average (GPA). Required to measure the "quantity" of progress is a maximum time frame—divided into semester increments—in which the student must complete the educational objective, and after which he/she is no longer making progress. The quantitative measurement also requires a designation of the minimum amount of work a student must successfully complete by the end of each increment of enrollment.

The same principles of academic progress are applied to Institutional forms of assistance. However, the standards are higher for scholarships.

Requirements for Federal and State Aid

- 2.0 (C) minimum cumulative Grade Point Average (GPA) to receive and keep financial aid;
- 9.0 earned credit hours, minimum, completed each semester for full-time financial aid (12+);
- 6.75 earned credit hours, minimum, completed for each semester for three quarter-time financial aid (9.0-11.5);
- 4.5 earned credit hours, minimum, completed each semester for half-time financial aid (6-8.5);
- A maximum eligibility time frame, measured in completed earned credit hours, of 96 semester hours for an associate degree and 192 semester hours for a bachelor degree.

Financial aid will be denied or canceled if a student's records indicate failure or inability to maintain good standing and/or satisfactory academic progress. Students are commonly found ineligible because they have: (1) too low of a cumulative GPA; (2) Audits, Drops, Failing "E" Grades, Incompletes, Repeats, Challenge Credits, Withdrawals or Unofficial "UW" Withdrawals; (3) not completed the required number of credit hours; (4) not officially withdrawn from classes; (5) completed more than the permitted maximum hours; (6) failed to maintain progress at a previous institution. A repayment may also be owed.

If an aid recipient has the tuition and fee account credited from financial assistance before grades are available and it is later determined that he/she is no longer eligible, the Financial Aid Office has the right to recover those aid funds and to charge the student for the tuition and fees due or to withdraw the student from school.

A student who is not eligible or who loses eligibility may still be able to (re)qualify. To do so the individual must attend school, at his/her own expense, and raise his/her GPA to the required level and/or complete the required number of credit hours. Once the deficiencies are corrected, a written appeal (forms available) must be submitted to the Financial Aid Advisor(s) for determination of eligibility status

and whether a new aid award can be calculated. However, no payments and no adjustments will be made to compensate for aid lost during periods of ineligibility.

REFUNDS AND RETURNS

(see endnote at the end of this section)

Students who officially withdraw from school or drop classes no later than the end of the refund period may be entitled to a UVSC refund of tuition and fees. Time schedules are published in the catalog and/or class schedules.

If a refund is payable and the student received any Federal, State or Institutional scholarship or financial assistance funds (except Federal Work-Study or UCOPE Work) the entire amount of the UVSC refund may be restored to the financial aid programs. Federal regulations require that funds be returned first to the Title IV programs. The federal share is calculated according to new federal guidelines.

Students who formally withdraw or leave school unofficially (but for whom attendance can be documented) may be required to return all or part of the Title IV funds disbursed. The amount of Title IV assistance earned by the student must be calculated for official and unofficial withdrawals which occur through the first 60% of the semester or term of enrollment. Thereafter, no return of Title IV funds is required. Important: Financial aid recipients who completely withdraw BEFORE ATTENDING 60% of the semester will be required to repay financial aid.

If the amount of aid received by the student exceeds the amount earned, according to the percent of time the student was enrolled, the excess must be returned to the Title IV programs. The amount to be returned is the "lesser of the unearned amount of Title IV assistance or an amount equal to the total institutional charges the student incurs for the payment period or period of enrollment for which the assistance was awarded, multiplied by the unearned percentage of awarded Title IV grant and loan assistance." (484B).

Students who do not officially withdraw from school and who cannot document their attendance are not considered to have earned any financial assistance. Such students will be responsible to return all Title IV funds the College restores to the Title IV accounts. In addition, all State and Institutional funds received for non-institutional costs must also be repaid.

Repayment of unearned funds is generally due immediately. Students will be notified of the repayment amount and the repayment deadline for federal funds. Institutional services such as grade transcripts, enrollment for future terms, and so on may be withheld until repayment is received. **Until** Title IV funds are returned, a student who owes repayment will not receive aid at any other college or university. Students who completely withdraw for the semester after receiving federal financial aid are not considered to be making satisfactory academic progress.

VERIFICATION

Approximately one third of all applicants are randomly selected by the Federal Processor for a process called verification. The UVSC Financial Aid Office is required to verify the accuracy of data in those selected files. There are three reasons for doing so: (1) to reduce errors; (2) to prevent mistakes that may result in either the student or the Institution having to repay Federal or State funds; (3) to ensure that the limited dollars available for financial assistance are offered to students who are truly eligible for assistance.

If selected, you will be required to give the Financial Aid Office many forms and documents to help in the verification process. The most common are listed on the Document Checklist. Errors cause considerable delay, so make sure to report only accurate information.

Mountainland Advanced Technology Center

Financial Aid may be available for some programs through the MATC. Contact them for further information.

CONSUMER INFORMATION

Accreditation: Information regarding the associations, agencies/and or governmental bodies that accredit, approve, or license the school and its programs, can be found in the College Catalog.

General institutional issues: Contact the information desk or Student Service Center.

Costs of attending UVSC: Outlined in the College Catalog, Class Schedule, and Admissions/Registration Office.

Degree programs, training, and other education offered: Information is available at Career and Academic Counseling and in the College Catalog.

Equity in Athletics: Information on the campus athletic programs including the number and gender of participants that compete as well as campus coach staff information, can be found in the Athletic Department.

GED program information: Available on-line at www.uvsc.edu/testingservices/ged.

Institution's completion or graduation rate and transfer-out rate: Contact Career and Academic Counseling or Graduation.

Instructional, laboratory, and other physical plant facilities associated with the academic programs: Refer to the College Catalog or Class Schedule.

List of faculty and other instructional personnel: Listed in the College Catalog.

Loan repayment: Information available in the Loan Counseling Handbook or at the SFA Office.

Prevention of drug and alcohol abuse: Refer to the College Catalog or Class Schedule.

Refund policy: Defined in the College Catalog and Class Schedule.

Special facilities and services available to disabled students: Contact Accessibility Services.

Student Right-to-know and campus security: Detailed reports listed in the College Catalog and Class Schedule as well as the UVSC web site.

ENDNOTES

Details are available in the Financial Aid Office for procedures and requirements, including the following:

1) Budget and Resource
2) Awarding and Packaging
3) Satisfactory Academic Progress
4) Refunds and Returns
5) Verification and Documentation
6) Student Loan Limits

CONCLUSION

For additional information on financial assistance or help completing forms, please contact:

Financial Aid Office
Utah Valley State College
Office: BA-105, Administration Building
800 West University Parkway
Orem, Utah 84058-5999
Telephone: 801-863-8442
Fax: 801-863-8448

Academic Policies and Standards

ACADEMIC YEAR

The academic year consists of two semesters (Fall and Spring) of 15 weeks each. Additionally, classes may be taken during the Summer term.

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:

a. One hour of lecture, plus a minimum of two hours of personal work outside of class. (One hour of lecture is considered to be 50 minutes per week)

b. Three hours in a laboratory, with additional outside work in preparation and documentation;

c. 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 ratio. For example, a three credit hour course from a quarter calendar institution transfers to UVSC as two semester credits. A three semester credit course at UVSC transfers to a college or university operating on the quarter calendar as 4.5 quarter credits.

FULL-TIME STUDENT STATUS

UVSC 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 fulltime status. Financial aid recipients receiving full benefits and students on scholarships are required to carry a minimum of 12 credits.

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, 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 Fall or Spring semester or the equivalent hours for Summer term, must have approval from Deans of appropriate schools.

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/laboratory contributions, mastery of pertinent skills, etc. The letter grade "A" is an honor 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.

One Credit of:	Equals Grade Points:
A	4.0
A-	3.7
B+	3.4
B	3.0
B-	2.7
C+	2.4
C	2.0
C-	1.7
D+	1.4
D	1.0
D-	0.7
E	0.0
UW	0.0

The following grades are not computed in the GPA:

W	Official Withdrawal
I	Incomplete
AU	Audit
CR	Credit Granted
NC	No Credit Granted
CEU	Noncredit—Continuing Education Unit

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 OnAccess or VoiceAccess systems at the end of the semester/term. **All financial obligations to the College 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/term. 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 appropriate by the instructor.

If circumstances are deemed appropriate, the student may petition the instructor for time beyond the end of the semester/term 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 department chairperson, and turned into the Records Office with the instructor's final grades.

"I" grades should not be requested nor given for lack of completion of work because of procrastination or dissatisfaction with the grade earned.

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/term in which the "I" was given.

The incomplete work cannot be completed by retaking the class. If such an option is preferred, the student should 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," (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 remark "included in GPA" is placed next to the last class taken and the previous class(es) will show "Repeat (excluded from GPA)."

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

Board of Regents policy requires that tuition for repeating a course more than once shall be charged at the full cost of the instruction 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

POLICY

(Currently under revision. For updates, see your academic dean.)

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. He/she has the right to discuss the merits of his/her appeal in an informal and non-threatening environment.

Second - After obtaining feedback from the instructor regarding 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 an informal appeal to the department head, either in writing or verbally, 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 College 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 UVSC, 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 College 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.

The Records Office notifies the student of a grade change.

WITHDRAWAL AND REINSTATEMENT

Withdrawal from Classes

For Fall and Spring Semesters, if a student officially withdraws from a semester class during the first three weeks of the semester, no grade entry will appear on the permanent record. For Summer term, and block classes, no grade entry will appear on the permanent record of students who officially withdraw from classes through the 100% tuition refund date.

For Fall and Spring Semesters, if a student officially withdraws after the third week, but prior

to the last day to drop classes, the withdrawal will appear on the permanent record as a "W." For Summer Terms and block classes, if a student officially withdraws after the 100% tuition refund date, but prior to the last day to drop classes, the withdrawal will appear on the permanent record as a "W."

If a student stops attending (but does not officially withdraw) **before the last day to drop**, he/she should receive a "UW."

If a student stops attending (but does not officially withdraw) **beyond the last day to drop**, he/she may receive the grade earned up to that point or an "E".

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

Administrative Withdrawal

Students may be withdrawn from classes by the administration if they: 1. Register, but do not attend equipment or lab-related courses within the first three days of a semester, 2. Register for courses for which they have not completed prerequisites, 3. Default on short-term loans, or 4. Neglect to pay tuition and fees for any given semester/term by the end of the third week. Such changes to a student's schedule could affect financial aid, scholarships and/or refunds.

Withdrawal from the College

It is the responsibility of the student who withdraws from school to complete an Official Withdrawal Form and submit it to the Registration/Records Office. Complete withdrawal from college may adversely affect financial aid and/or Veterans' benefits. Simply stopping attendance does not qualify as a withdrawal, and a student who does so may receive a failing grade.

Reinstatement

Students who withdraw from the College and then desire to be reinstated during the same academic semester may do so by obtaining clearance from the Registration Office and by paying a $5 reinstatement fee.

Student Military Leave Procedure

Students activated into military service during an academic semester/term 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 College officials regarding the implementation of the selected option.

A. A request to withdraw from school will be honored with a full refund of all tuition and fees paid. Nonpunitive "W's" will be recorded on the transcript and the date of action maintained on the student's record.

B. 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.

C. 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.

COLLEGE CREDIT

College credit at UVSC may be obtained through the following methods: 1. UVSC 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. UVSC Credit

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

Cooperative Education

Cooperative Education (Coop) offers another avenue for students to obtain UVSC college credit. Students enrolled in cooperative education work as paid employees of a business, agency, or institution while enrolled at the College 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:

Credit Hours	Minimum Hours of Work
1	75
2	150
3	225
4	300
5	375
6	450
7	525
8	600

Coop credits are registered for at the same time and in the same manner as UVSC 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 UVSC Admissions Office. Transcripts accepted as official by the UVSC 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 courses with grades below "C-" will not be accepted at UVSC. 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 which may be accepted; however, UVSC 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 UVSC.

General Education for Transfer Students

For transfer students from any Utah State Higher Education institution, UVSC shall accept at full value all General Education course work approved by the sending institution in any area specified by the Board of Regents document R465. These areas include Composition, Quantitative Literacy, Fine Arts, Humanities, Social and Behavioral Science, Biology and Physical Science. UVSC shall require transfer students to complete in addition to those areas specified in the American Institutions Requirement and only any additional General Studies course work needed to equal the minimum number of credits (35) required in the UVSC General Education Program. Previously completed General Studies course work shall be applied to assure the best possible fit with UVSC's General Education requirements. As each transfer student's requirements may vary, see the Graduation Office (BA 114) for specific requirements.

Upper Division Course Work

Under rare circumstances, and only if subject content is equivalent, 1000 or 2000-level courses transferred from other institutions may be substituted for UVSC upper-division courses. However, these courses will not satisfy upper-division credit-hour requirements.

The baccalaureate degree requires a minimum of 40 hours of upper-division (3000 and 4000-level) credit.

U.S. Institutions outside of Utah

For transfer credit to be accepted by UVSC, 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 Association of Colleges and Universities (NACU)
* 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.)

Individual departments may choose to make exceptions to this list on a course by course basis.

Military courses are evaluated using the ACE recommendations from the Guide to the Evaluation of Education Experiences in the Armed Services.

International and Foreign Institutions

The Graduation/Transfer Office, working with department advisors, is authorized to evaluate credit from foreign colleges, universities, and/ or International Baccalaureate (IB) Diplomas after a student has been admitted to UVSC. International students requesting transfer of credit from foreign institutions of higher education must submit a transcript from an approved Foreign Credentials evaluation Service. See BA 114 for a list of these accepted services.

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

3. **Experiential/Challenge Credit** (Equivalency Examination and/or Documentation of Earned Competency)

Credit for any course that appears 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

a. be admitted to the College and currently enrolled for at least three semester hours of credit;

b. complete the semester in which the challenge credit is awarded with at least three earned semester hours of credit, excluding the challenge credit;

c. obtain department chair approval prior to step d;

d. pay in advance a nonrefundable processing fee;

e. complete a comprehensive examination (theoretical and/or applied) with at least a "C-" grade and/or provide documentation of practical experience to the satisfaction of the department chairperson and dean showing course objectives have been met; OR complete an advanced course with a grade of "C-" or higher as a validation procedure (if deemed necessary by the department);

f. pay a fee for each approved credit hour.

Students may not challenge a class for which they are/or have been enrolled.

No more than 25 percent of the credits applied toward an associate degree, diploma, or certificate may be awarded through challenge credit. Regardless of the certificate, diploma, or degree (to include bachelor of science degrees), 16 credit-hours of challenge credit is the maximum that may be applied.

A course may be challenged through prior permission of the department chairperson through enrollment in an advanced class that typically would require previous course work when there is valid evidence that the student may have already achieved the required competency. The competency may have been attained through work experience and/or private study. If the student is successful in the advanced class (grade "C-" or better), he/she may apply for credit, through the offering department's chairperson, for classes taken as a sequence up to the challenged class. When a class is successfully challenged, a fee is charged for each credit hour.

A specific course may be challenged only once. Duplicate credit will not be awarded.

Credits achieved by the challenge procedure outlined above are recorded as "CR" on the official transcript and will be posted to the transcript at the end of the semester/term.

4. **Language Challenge Credit**

Students may obtain an Experiential Language Credit Request Form in the UVSC Language Department.

Students who have acquired proficiency in languages **offered at UVSC** by means other than college courses (high school, foreign residency, etc.) may earn up to 18 credit hours. To qualify for these credits, a student must complete a course in that language at a higher level than the credits for which he/she applies; the grade in that course must be a "C-" or better.

To qualify for credit for language courses **not offered at UVSC**, a student may take the appropriate nationally normed language test at an accredited four-year college or university and provide UVSC with the satisfactory (C-) test results. In this circumstance, the student should meet with the language department chairperson to ascertain the maximum language credits that may be applied to any degree from UVSC.

Proficiency tests to determine placement (not credit) in advanced courses are administered in the UVSC Assessment Center prior to the beginning of each semester. Students unsure of their language skills should 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 Foreign Language 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 Foreign Language Department.

5. **Advanced Placement Credit**

In recognition of the Advanced Placement Program sponsored by the College Entrance Examination Board, students who complete an Advanced Placement course in high school and receive a grade of 3, 4, or 5 on the corresponding Advanced Placement Examination may be granted up to 10 credits in that subject. Credit will be posted as a "**CR**" grade and will not be calculated in the GPA. Students having AP test scores of 3 or higher should contact the Graduation/Transfer Office to ensure posting of the results to their UVSC transcripts.

If all **residence**, **credit**, and **grade point average** requirements have been met, there is no limit to the number of Advanced Placement credits which may be accepted.

6. **CLEP Credit** (College Level Examination Program)

Students may receive college credit for CLEP

exams as specified on the approved list in the Graduation/Transfer Office. Additionally, students intending to transfer to another institution from UVSC should articulate 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 16 total CLEP hours maybe awarded.

COURSE NUMBER SYSTEM

0000-0999 Remedial or preparatory non-credit 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.

3000-4990 Upper division (junior and senior courses); courses designed to count toward a bachelor's degree, or any other degree as required by department.

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 of Arts, Associate of Science, and Bachelor of Science degrees.

The letter suffix "R" indicates that a course is repeatable for credit (example: PES 161R). Course descriptions indicate 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 classes are identified on the transcript by an "H" following the course number (example: ENGL 225H).

ACADEMIC STANDARDS

Career and Academic Counseling Center

Room: WB 147
Telephone: 863-8425

The mission of Academic Standards at Utah Valley State College (UVSC) is to help students succeed academically. Students are considered to be succeeding academically if they continue in good standing (defined as earning at least a 2.0 GPA on a 4.0 scale), graduate, or leave UVSC in good standing. To this end, the following policies have been established:

Academic Warning

A student with a current GPA below 2.0 will be on academic warning and will be required to attend a short workshop before the hold will be removed from his/her student record.

Academic Probation

1. A student with a cumulative GPA below the 2.0 minimum will be on academic probation.

2. A student will be removed from academic probation when their cumulative GPA and current GPA are 2.0 or above.

Suspension

1. A student who fails to achieve both a current and cumulative GPA of at least 2.0 after two semesters of probation will be suspended from UVSC.

2. A student who has been suspended must petition the Academic Appeals Committee in order to register for a subsequent semester.

3. If a student's petition is granted, the conditions and length of probation will be determined by the Academic Appeals Committee. When the student has completed the terms of probation and his/her grades are consistently above 2.0 for a least two semesters, the student will be returned to good standing at UVSC.

Dismissal

When a student fails to comply with the terms of probation, as determined by the Academic Appeals Committee, the student will be dismissed from UVSC. Such a student has exhausted his/her opportunity to study at UVSC in a degree-seeking program until he avails himself of the appeals process.

Re-Admission

Students who withdraw from UVSC with a final semester GPA of less than 2.0 but have a cumulative GPA higher than a 2.0, will be readmitted on probation and must meet with their advisor to establish an academic plan.

Any student with a cumulative GPA below 2.0 who withdraws from UVSC must petition the Academic Appeals Committee in order to be readmitted.

Appeals From Suspension Or Dismissal Status

A student subject to suspension or dismissal may petition the Academic Appeals Committee for an exception to the Academic Standards Policy. To do so, he/she must submit a written appeal to the Appeals Coordinator. In this petition the student may request that he/she be granted a hearing before the Academic Appeals Committee. The petition should set forth the extenuating circumstances that would warrant the granting of a waiver of the student suspension, or dismissal status. Evidence should be presented which would indicate that the student has carefully considered and reassessed educational objectives and has eliminated those factors which led to suspension, or dismissal status.

If a student is dissatisfied with the decision of the Academic Appeals Committee, the student has the right to present a written appeal to the Vice President for Student Services, within two weeks following notification of the committee's decision. Following a review of the appeal, the Vice President for Student Services will make the final decision.

Academic Renewal

To facilitate graduation and future academic pursuits for students who have had a period of study that does not reflect their academic potential, UVSC will allow a student to petition the Registrar for academic renewal once during his/her enrollment at the college. This process will allow the removal of some previous academic work for computation of GPA or from credit towards graduation. To be eligible, the following conditions must be met:

1. The student must be currently enrolled at UVSC.

2. At the time the petition is filed, a minimum of two years must have elapsed since the most recent course work to be eliminated was completed.

3. Before the petition may be filed, the student must have completed at least 30 semester hours of UVSC course work within a minimum cumulative GPA of 2.50. This course work must have been completed after the course work being considered for elimination.

The student may have a maximum of two semesters/terms of academic course work disregarded in all calculations regarding the computation of total credits and cumulative GPA. The petition to be filed by the student will specify the semesters/terms to be disregarded.

If the petition qualifies under this policy, the student's permanent academic record will be suitably annotated to indicate that no work taken during the disregarded semester(s) and/or term(s), even if satisfactory, may apply toward the computation of credits, GPA, academic standing, and/or graduation requirements. However, all work will remain on the records, ensuring a true and accurate academic history. The word "Academic Renewal" and the affected semester(s)/term(s) will be annotated on the student's transcript.

This policy will not be used for individual courses, or for students already holding associate or baccalaureate degrees. Since this is already a policy of exception, no exceptions

will be made to the aforesaid conditions. Students should be aware that this policy MAY NOT BE ACCEPTED at transfer institutions. Academic renewal may be requested only once during a student's academic career at UVSC.

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.

Graduation and General Education

GRADUATION OFFICE

Room BA 114
801-863-8438

Utah Valley State College offers the following degrees: Bachelor of Applied Technology; Bachelor of Arts; Bachelor of Fine Arts; Bachelor of Science; Associate in Science; Associate in Arts; Associate in Science in Nursing; Associate in Applied Science; Diplomas, and Certificates are also offered.

GENERAL GRADUATION REQUIREMENTS

Students are expected to familiarize themselves with the rules and regulations of both the College 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. Utah Valley State College reserves the right to change graduation requirements at any time.*

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

Credit Requirement

A candidate for a Bachelor's Degree must complete a **minimum** of 120 semester hours, 40 of which must be upper-division credits (level 3000 or above); an Associate Degree a **minimum** of 60 semester hours; a diploma, a **minimum** of 50 semester hours; and a one-year certificate, a **minimum** of 30 semester hours. In addition to the appropriate number of credit hours, to be eligible for graduation a candidate must show satisfactory completion of appropriate program requirements.

Computer Literacy

It is recommended students complete a computer literacy course before Graduation. The course should cover the areas of: Basic Computer Concepts/Operating Systems; Basic Internet/E-mail Applications; Basic Word Processing Applications; Basic Spreadsheet Applications; Basic Presentations Applications; and Basic Database Applications. The recommended course is ISYS 1050. All School of Business Graduates are required to satisfy computer proficiency requirements. See your advisor for specific details.

Grade Point Average Requirement

A 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 (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 maxium of 7 years to complete Bachelor Degree Programs and 5 years to complete all others. In the case of Bachelor's 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 choose from any one catalog published within the accepted period prior to their 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.

Residence Requirement

At least 30 credit hours in residence at UVSC or satellite sites are required for a Bachelor's Degree, with 10 hours earned during the last 45 earned hours. Two-year degrees require at least 20 hours in residence. One-year certificates require at least 10 hours in residence.

Multiple Degrees

Individuals may earn either an AS or an AA degree and may, in addition, earn AAS degree(s) and bachelor degree(s). A student having an AS/AA degree may not earn another AS/AA degree at UVSC. However, a student having an AAS degree from another college may earn additional AAS degree(s) and/or an AS/AA degree at UVSC, as well as earning a bachelor's degree and multiple emphases.

Additional **AAS degrees** may be awarded when all requirements for **each** degree are satisfied. A second **bachelor's degree** may be awarded when all requirements for **both** degrees are satisfied, along with the following:

1. All UVSC general education requirements must be satisfied.
2. Thirty semester hours beyond the original degree must be completed.
3. Twenty semester hours of the thirty hours in No. 2 above must be completed at UVSC (resident hours).
4. Approval of a second bachelor's by the supervising dean.

DEGREE REQUIREMENTS

Bachelor of Arts/Science Degree

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 UVSC, 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 for specific courses required for graduation;
- Completion of specific departmental (major) requirements.

For a Bachelor of Arts degree in programs offering the degree, students must complete 18 credit hours of course work from one language to include the 1010, 1020, 2010 and 2020 levels, or transferred equivalents.

NOTE: Academic Departments may require specific general education courses in addition to major requirements.

Multiple Emphases

Additional emphases (not tracks or specialities) under a specific bachelor's degree may be earned by completion of the requirements for those emphases. Additional emphases will appear on transcripts, but no additional diplomas will be awarded.

Associate in Science/Arts Degree*

Graduation requirements for the Associate in Science/Arts Degree 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 UVSC;
- 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 10 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:

1. Ten credits of the same language taken at UVSC or transferred from another college;

or

2. Application of foreign language challenge credit as described in the Foreign Language Challenge Procedures (available from the Foreign Language Department Chair).

Language credit does not apply to the General Education Humanities Distribution area (except for any 2020 course) but will apply as elective credit in the AS/AA degree and as Humanities credit for the AAS degree.

Associate in Applied Science

Graduation requirements for the Associate in Applied Science Degree 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 UVSC;
- Completion of department general education requirements;
- Completion of specific department major requirements.

Diploma

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

Certificate

Certificates require a minimum of 30 credit hours. Many departments offer one-year certificates. Not all departments offer a certificate. See specific department program listings for details.

GENERAL GRADUATION INFORMATION

Application for Graduation

Graduation is not automatic. Prospective graduates must complete an Application for Graduation form (obtained from the Graduation Office, BA 114 or online), fulfill all requirements listed thereon, turn the application in to the Graduation Office by the deadline on the application. The graduation fee must be paid to the cashier prior to graduation.

APPLICATION DEADLINES ARE:

Fall Semester Deadline First Friday in October
Spring Semester Deadline First Friday in February
Summer Semester Deadline 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. Students failing to complete graduation requirements by the end of the semester for which they have applied must reapply for graduation and pay another graduation fee.

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 desirable, but not mandatory.

FINANCIAL HOLDS

Candidates for graduation who owe money to Utah Valley State College will not receive their diplomas until all debts are paid.

GRADUATION WITH HONORS

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.)

Two-year Degrees

Associate in Science/Associate in Arts
Honors GPA 3.60
High Honors GPA 3.80

UVSC Honors Program

GPA 3.50
(Other criteria required by Honors Department)

Phi Theta Kappa

GPA 3.50
(Other criteria required by Club)

Bachelor's Degrees

Cum Laude GPA 3.60
Magna Cum Laude GPA 3.80
Summa Cum Laude GPA 3.90

Valedictorians

Each of the Schools of the College will select a valedictorian from a list supplied by the Graduation office of candidates graduating with honors during the academic year. Schools with bachelor's degrees will select a valedictorian for both associate degree graduates and one for bachelor's degree graduates.

Approved guidelines will provide the framework for the process of selecting valedictorians.

GENERAL EDUCATION INFORMATION

General Education assists students to become independent, creative, and productive learners. The knowledge and skills gained from General Education provide a broad educational background that benefits students for a lifetime, regardless of their career paths.

Completion of the Utah Valley State College 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 UVSC has not articulated these courses with higher education institutions outside the State of Utah, they will generally articulate to other 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 Career and Academic Counseling Center, WB 145, Phone: 801-863-8425. Students who have declared a specific major that is taught at UVSC will be directed to the appropriate 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 UVSC department advisors or the Graduation and Transfer Services Office, BA 114.

GENERAL EDUCATION CODE SYSTEM

General Education course designator codes 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 Science/Arts Degrees and Bachelor of Science/Arts Degrees:

AS - American Institutions
BB - Biology
CC - English Composition
FE - Fitness for Life
FF - Fine Arts
HH - Humanities
IH - Ethics and Values
LH - Foreign Language
MM - Mathematics
PP - Physical Science
SS - Social Science
TE - Personal Health
XF - Must be taken with another course to equal FF (see department)

In addition to the courses listed above, the courses listed below also fulfill the minimum requirements in general education for the Associate in Applied Science Degree:

GB Biology
GC English Composition
GE Health or Physical Education
GF Fine Arts
GH Humanities
GM Mathematics
GP Physical Science
GS Social Science

The "G" coding also identifies courses which count as general education electives for the Associate in Arts/Science Degrees or Bachelor of Arts/Science Degrees.

GENERAL EDUCATION REQUIREMENTS

Associate in Arts/Science Degree

Bachelor of Arts/Science Degree

These requirements satisfy the general education requirements for both the Associate in Science and the Associate in Arts Degrees, as well as the Bachelor of Arts/Science Degree at UVSC, 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.

Complete the following: ..... **6 credits**
ENGL 1010 Introduction to Writing
and
ENGL 2010 Intermediate Writing—Humanities/Social Science
or
ENGL 2020 Intermediate Writing—Science and Technology

Complete one: ..... **3 or 4 credits**
MATH 1030 Quantitative Reasoning
(recommended for Humanities or Arts majors)
or
MATH 1040 Introduction to Statistics
(recommended for Social Science majors)
or
MATH 1050 College Algebra
(recommended for Business, Education, Science, and
Health Professions Majors*)
or
One course that requires MATH 1050 as a prerequisite (excluding MATH 1060)
or
An Advanced Placement (AP) Mathematics Test with a score of 3 or higher.

*All Other majors should check with their advisor for the correct course.

American Institutions
Complete one of the following ..... **3 credits**
POLS 1000 American Heritage
HIST 2700 & 2710 US History to/since 1877
HIST 1700 American Civilization
ECON 1740 US Economic History
POLS 1100 American National Government

Complete the following: ..... **5 credits**
PHIL 2050 Ethics and Values
HLTH 1100 Personal Health & Wellness
or
PES 1097 Fitness for Life

Distribution Requirements ..... 18 credits

A. SCIENCE

All Majors must complete **One course of Biology (BIOL 1010 or BIOL 1610 highly recommended), 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

BIOL 1010	General Biology	3.0
BIOL 1070	Genetics	3.0
BIOL 1200	Prehistoric Life	3.0
BIOL 1500	Physical Anthropology	3.0
BIOL 1610	College Biology I	5.0
BIOL 204R	Natural History Excursion*	3.0
BIOL 2500	Environmental Biology	3.0
BOT 2050	Field Botany	3.0
BOT 2100	Flora of Utah	3.0
BOT 2400	Plant Kingdom	4.0
HLTH 3400	Human Diseases	3.0
MICR 2060	Microbiology for Health Professions	4.0
NUTR 2020	Nutrition Through Life Cycle	3.0
ZOOL 1090	Introduction to Human Anatomy/Physiology	3.0
ZOOL 2320	Human Anatomy	4.0
ZOOL 2400	Animal Kingdom	4.0

* May be used as the third science only

Physical Science

CHEM 1010	Introduction to Chemistry	3.0
CHEM 1110	Elementary Chemistry for the Health Sciences	4.0
CHEM 1120	Elementary Organics Bio-Chemistry	4.0
CHEM 1210	Principles of Chemistry I	4.0
CHEM 1220	Principles of Chemistry II	4.0
GEO 1010	Introduction to Geology	3.0
GEO 1020	Prehistoric Life	3.0
GEO 1080	Introduction to Oceanography	3.0
GEO 204R	Natural History Excursion*	3.0
METO 1010	Introduction to Meteorology	3.0
PHSC 1000	Survey of Physical Science	3.0
PHYS 1010	Elementary Physics	3.0
PHYS 1040	Elementary Astronomy	3.0
PHYS 1070	Cultural Astronomy	3.0
PHYS 2010	College Physics I	4.0
PHYS 2020	College Physics II	4.0
PHYS 2210	Physics for Scientists/Engineers I	4.0
PHYS 2220	Physics for Scientists/Engineers II	4.0

*May be used as the third science only

B. HUMANITIES - One course minimum

AMST 2000	Introduction to American Studies	3.0
ASL 2020	Intermediate American Sign Language II	3.0
CHIN 2020	Intermediate Chinese II	3.0
COMM 1020	Public Speaking	3.0
COMM 1050	Introduction to Speech Communication	3.0
COMM 1130	Writing for Mass Media	3.0
COMM 1500	Introduction to Mass Communications	3.0
COMM 2010	Mass Communication and Society	3.0
ENGL 2030	Rhetoric of Persuasion	3.0
ENGL 2130	Science Fiction	3.0
ENGL 2200	Introduction to Literature	3.0
ENGL 2210	Introduction to Folklore	3.0
ENGL 2230	Myths/Legends in Literature	3.0
ENGL 2250	Creative Procedure/Image Writing	3.0
ENGL 2300	Shakespeare	3.0
ENGL 2310	Technical Writing	3.0
ENGL 2510	American Literature before 1865	3.0
ENGL 2520	American Literature after 18653.0	
ENGL 2600	Critical Introduction to Literature	3.0
ENGL 2610	British Literature Before 1800	3.0
ENGL 2620	British Literature After 1800	3.0
ENGL 3760	World Literature	3.0
FREN 2020	Intermediate French II	3.0
GER 2020	Intermediate German II	3.0
HUM 1010	Humanities Through the Arts	3.0
HUM 2010	Arts in Humanistic Traditions I	3.0
HUM 2020	Arts in Humanistic Traditions II	3.0
IS 3000	Introduction to Integrated Studies	3.0
JPNS 2020	Intermediate Japanese II	3.0
PHIL 1000	Introduction to Philosophy	3.0
PHIL 1250	Logical Thinking, Philosophical Writing	3.0
PHIL 1610	Western Religions	3.0
PHIL 1620	Eastern Religions	3.0
PHIL 2010	Ancient-Medieval Philosophy	3.0
PHIL 2020	Modern-Contemporary Philosophy	3.0
PHIL 2110	Ancient Philosophy	3.0
PHIL 2130	Medieval Philosophy	3.0
PHIL 2150	Early Modern Philosophy	3.0
PHIL 3400	Philosophy of Science	3.0
PHIL 3530	Environmental Ethics	3.0
PORT 2020	Intermediate Portuguese II	3.0
RUS 2020	Intermediate Russian II	3.0
SPAN 2020	Intermediate Spanish II	3.0

C. FINE ARTS - One course minimum

ART 1010	Introduction to Visual Art	3.0
ART 1020	Basic Drawing	3.0
ART 1050	Photography	3.0
ART 1110	Drawing I	3.0
ART 2110	Drawing II	3.0
ARTH 2710	History of Art to the Renaissance	3.0
ARTH 2720	History of Art from the Renaissance	3.0
AVC 1540	Creativity	3.0
AVC 1640	Painting I	3.0
AVC 1650	Introduction to Watercolor	3.0
AVC 1660	Introduction to Clay Sculpture	3.0
AVC 1670	Introduction to Ceramics	3.0
AVC 1680	Fundamentals of Fiber Design	3.0
AVC 1690	Glass Design and Construction	3.0
AVC 1700	Process of Jewelry/ Metal Design	3.0
AVC 1710	Fundamentals of Sculpture, Fabrication, and Construction	3.0
AVC 1720	Architectural Rendering	3.0
AVC 2620	Photographic Darkroom Tech	3.0
AVC 2630	Photographic Camera Tech	3.0
AVC 3400	Fundamentals of Art Education	2.0
DANC 1010	Dance as an Art Form	3.0
DANC 2110	Orientation to Dance	3.0
MUSC 1010	Introduction to Music	3.0
MUSC 2010	Music History/Literature I	3.0
MUSC 2020	Music History /Literature II	3.0
MUSC 1100	Fundamentals of Music	2.0
	To Be Taken With One of the Following:	
	MUSC 120RA Cappella Choir	2.0
	MUSC 122RChamber Choir	1.0
	MUSC 124RUVSC Concert Choir	2.0
	MUSC 126RShow Choir (Encore)	2.0
	MUSC 130RSymphonic Band	2.0
	MUSC 132RJazz Ensemble	2.0
	MUSC 170RSymphony Orchestra	2.0
	MUSC 172RChamber Orchestra	1.0
THEA 1013	Introduction to Theater	3.0
THEA 1023	Introduction to Film	3.0
THEA 2313	Film History I	3.0

Complete 2 of the following to equal 1 Fine Arts Distribution course*

DANC 3400	Dance in Elementary School*	2.0
MUSC 3400	Music in Elementary School*	2.0
THEA 3713	Child Theater Elementary School*	2.0

D. SOCIAL/BEHAVIORAL SCIENCE - One course minimum

ANTH 1010	Social/Cult Anthropology	3.0
ANTH 1070	Multicultural Societies	3.0
ANTH 1500	Physical Anthropology	3.0
ANTH 1800	Introduction to American Indian Studies	3.0
ANTH 3150	Culture/Ecology/Health	3.0
ARCH 1100	Introduction to Archaeology	3.0
CJ 1010	Introduction to Criminal Justice	3.0
COMM 2110	Interpersonal Communications	3.0
ECFS 1500	Human Development: Life Span	3.0
ECFS 1400	Marriage	3.0
ECFS 2400	Family Relations	3.0
ECON 1010	Economics As Social Science	3.0
ECON 1740	US Economic History (If not used as Core Requirement)	3.0
GEOG 1300	Survey of World Geography	3.0
GEOG 2100	Geography of U.S.	3.0
HIST 1100	History of Civilization I	3.0
HIST 1110	History of Civilization II	3.0
HIST 1700	American Civilization (If not used as Core Requirement)	3.0
HIST 1800	Introduction to American Indian Studies	3.0
HIST 2700	US History to 1877 (If not used as Core Requirement)	3.0
HIST 2710	US History Since 1877 (If not used as Core Requirement)	3.0
HIST 3420	History of Technology	3.0
HIST 4320	History of Scientific Thought	3.0
HLTH 2600	Drugs, Behavior and Society	3.0
HLTH 2700	Health Concepts on Death/Dying	3.0
HLTH 2800	Human Sexuality	3.0
HLTH 3150	Culture/Ecology/Health	3.0
MGMT 1010	Introduction to Business	3.0
MGMT 2020	Macroeconomics	3.0
MGMT 2110	Interpersonal Communications	3.0
POLS 1000	American Heritage (If not used as Core Requirement)	3.0
POLS 1010	Introduction to Political Science	3.0
POLS 1100	American National Government (If not used as Core Requirement)	3.0
POLS 2100	Introduction to International Relations	3.0
POLS 2200	Introduction to Comparative Politics	3.0
PSY 1010	General Psychology	3.0
PSY 1100	Human Development: Life Span	3.0
PSY 2800	Human Sexuality	3.0
SOC 1010	Introduction to Sociology	3.0
SOC 1020	Modern Social Problems	3.0
SOC 1200	Sociology of the Family	3.0
TECH 2000	Technology and Human Life	3.0

ADDITIONAL GUIDELINES FOR COMPLETION OF THE ASSOCIATE IN SCIENCE/ARTS DEGREE

The Associate in Science and the Associate in Arts Degrees are designed to complete General Education requirements and could complete lower division pre-majors for Baccalaureate Degrees at UVSC 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 10 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 Career and Academic Counseling Center (WB 147) has some specific outlines available to transfer to other institutions.

ASSOCIATE IN APPLIED SCIENCE DEGREE

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 two credits in each area, except "F" (PE/Safety/Environment/Health.)

A. ENGLISH 2 credits

ENGL 1010 Introduction to Writing
ENGL 1060 Career Writing for Technology
or
ENGL 106A Career Writing for Technology - A
or
MGMT 2200 Written Business Communications

B. MATHEMATICS 2 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 2 credits

PHIL 2050 Ethics & Values (Highly recommended)
or
Any approved Humanities, Fine Arts, or Foreign Language Distribution Course

D. SOCIAL AND BEHAVIORAL SCIENCE2 credits

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

E. BIOLOGY OR PHYSICAL SCIENCE 2 credits

PHYS 1810 Principles of Technology I
or
PHYS 1820 Principles of Technology II
or
Any approved Biology or Physical Science Distribution Course

F. PHYSICAL ED/HEALTH/SAFETY OR ENVIRONMENT 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

UVSC 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 Science or Arts Degree, or a Bachelor of Science Degree, a certified letter verifying completion of the UVSC 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 UVSC general education requirements as fulfilling all of the general education/liberal education requirements of the gaining institution.

NOTE: Completion of an AA/AS 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 AND UNIVERSITIES

Since these schools are not bound by Utah State Regents' policies, colleges and universities outside the Utah System of Higher Education may have specific requirements and may not accept all courses available at UVSC.

BRIGHAM YOUNG UNIVERSITY

Brigham Young University accepts the Associate in Science/Arts Degree 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.

Student Rights and Responsibilities

The primary purpose of the enactment of a student rights and responsibilities code is to set forth in a clear and concise manner the rules and regulations of conduct expected of those who join the college community. Students, faculty, staff, and administration should always exercise their freedom with personal responsibility.

The College expects all students to obey the law, to show respect for properly constituted authority, to perform contracted obligations, to maintain absolute integrity and high standards of individual honesty in academic work, and to observe a high standard of conduct for the academic environment. In short, a student enrolled in the College accepts the obligation to conduct himself/herself in an adult manner acceptable at an institution of higher education.

POLICY STATEMENT

The educational environment is ideally conducted in an atmosphere where respect for all individuals exists. Therefore, students enrolled in the College accept the obligations to conduct themselves in an appropriate manner acceptable at an institution of higher learning.

The College has established written procedures outlined in this Student Rights and Responsibility Code, which provide a clear set of standard and fair treatments for its students.

STUDENT DISCIPLINARY PROCEDURES

Members of the student body should exercise their freedoms with personal responsibility. Should violations of the Student Code occur, sanctions may be enforced for the protection of the campus and its members.

Behavior which violates the Student Code should be reported to the Office of Student Judicial Affairs at 801-863-8694 (non-emergency) or Campus Police at 801-863-5555 (emergency.)

GENERAL RIGHTS

A student, while properly enrolled at the College, will have the right to the following college services, treatment, and information:

1. Free and open discussion, inquiry, expression, and assembly subject to constitutional limitations regarding time, place, and manner. (See college peaceful assembly policy)

2. Protection against the College's improper disclosure of students' records, work, views, beliefs, and political associations.

3. Procedural safeguard and personal privacy with respect to testing for drugs and infectious diseases.

4. Timely and understandable information and respectful treatment regarding policies, refunds, lab fees, course fees, library fines, lab breakages and liability, etc.

5. Freedom from a discriminatory and offensive campus environment directed toward another person.

6. Freedom from sexual harassment.

7. Full protection under the Constitution for freedom of the press, including the Constitutional limitations on prior restraint and censorship.

8. Due process of law recognized as being essential to the proper enforcement of College rules.

9. Security for his/her person, papers, and personal effects against unreasonable searches and seizures.

10. Freedom to inquire and to be informed regarding campus crime statistics.

11. Freedom to form and to operate an organized student association within the guidelines prescribed by the institution.

12. Access to the College Ombudsman for consultation in matters of personal and school issues and concerns.

13. Student representation through ASUVSC on College 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.

14. Access to all ASUVSC sponsored activities.

15. Accurate information in advertising, recruitment, and orientation efforts.

16. When contractually agreed to, off-campus housing grievances may be addressed under the student code of conduct.

ACADEMIC RIGHTS

A student will have the following rights in academic affairs, services, and information when properly enrolled as a student at Utah Valley State College:

1. Performance based on a written syllabus.

2. Appropriate and open discussion, inquiry, and expression, both in the classroom and in student/instructor conferences.

3. Freedom to take exception to views presented in a classroom setting and to reserve judgment in matters of opinion.

4. Professional and ethical conduct from all college personnel.

5. Competent and professional instruction.

6. Competent academic advisement.

7. Protection against an instructor's improper disclosure of a student's records, academic work, views, beliefs, and political associations.

8. Information prior to registering regarding the costs of tuition, activity fees, lab fees, course fees, etc.

9. Scheduled access to and use of college services, facilities, and programs.

10. Accurate information regarding course offerings, programs, majors, transfer policies, and institutional requirements and expectations.

11. Accurate information regarding changes in course programs or institution requirements and reasonable accommodations for those already enrolled in a program or class.

12. The right to receive academic credit and/or academic degrees when all specified requirements and course work have been satisfied.

13. The right to appeal regarding grade change, withdrawals, etc.

GENERAL RESPONSIBILITIES

A student assumes the responsibility to conduct himself/herself in an appropriate manner. Categories of misconduct that are not considered responsible behavior include, but are not limited to, the following:

1. Failure to respect the right of every person to be secure and protected from fear, threats, intimidation, harassment, hazing, and/or physical harm caused by the activities of groups or individuals.

2. Sexual assault, harassment, or any other unwelcome verbal or physical sexual activity, including the support or assistance of such activities.

3. Unauthorized seizure or occupation of any College building or facility.

4. Obstruction, disruption, or interference with teaching, disciplinary proceedings, College-sponsored activities, services, or events.

5. Use or possession of any weapon, explosive device, or fireworks or storage of such on college property without prior written approval from the Chief of Campus Police.

6. Unlawful use, possession, distribution, sale, manufacture, or possession for purposes of distribution or sale of controlled substance or illegal drug on any property or in any building owned, leased, or rented by the College or at any activity sponsored by the College.

7. Initiation or circulation of any false report, warning, or threat of fire, bombs, or explosives on College premises or during College-sponsored events.

8. Violation of the Utah Indoor Clean Air Act and/or the College no smoking policy.

9. Sale, possession, manufacture, distribution, or consumption of alcoholic beverages on College properties or during college sponsored events on/off campus.

10. Unauthorized possession, forgery, alteration, misuse, or mutilation of College documents, records, educational materials, identification, (i.e. personal ID, parking decal) library material or other College property.

11. Violation of city ordinances and/or state statutes regarding gambling.

12. Delivery of false information to College personnel.

13. Theft or malicious destruction, damage, or misuse of College property or private property of another person on the College campus or when engaged in activities sponsored or supervised by the College off campus.

14. Intentional or reckless destroying, defacing, vandalizing, damaging, or misusing property, equipment, materials, services, or data of the College.

15. Unauthorized possession or use of a key, or a combination to any College facility or equipment.

16. Obscene or lewd conduct as defined by College policy, city ordinances, and/or state statutes, including but not limited to, personal audio, video, film, and computer generated material.

17. Failure to adhere to all laws and regulations governing the duplication and use of copyrighted materials including, but not limited to, printed and audio materials, video film, and/or computer generated material.

18. Unauthorized use of or charges to any College telephone for long distance calls.

19. Unauthorized off-campus fund raising activities on behalf of the College. All fund-raising must have prior written approval from the College Development Office.

20. Intent to defraud the College in any financial matter including, but not limited to:

    a. non-redemption of personal checks refused by a bank;

    b. sale/resale of supplies, books, or equipment in violation of College agreements;

    c. falsifying College financial records; and/or

    d. nonpayment of tuition and fees as set forth by College regulations.

21. Failure to adhere to all laws/College Policies or to conduct oneself in a way not to endanger the health and well-being of other students and college personnel.

22. Unauthorized commercial ventures or enter-

prises on College property.

23. Bringing animals on campus except for those serving the disabled or those used for educational purposes.

24. Allowing children in College classrooms or laboratories (unless they are an integral part of instruction) or leaving children unattended in hallways, and restrooms or at college-sponsored events and functions.
Students are encouraged to report violations of this policy to the office of Student Life (SC 109) or College Police (863-8187).

ACADEMIC RESPONSIBILITIES

1. Each student is expected to take an active role in the learning process by meeting course requirements as specified in written syllabi.

2. Each student is expected to display appropriate conduct in classroom situations, which will enhance the learning environment.

3. Faculty members have the right to set classroom standards of behavior and attendance requirements. Students will be expected to meet these requirements and make contact with faculty members when unable to do so.

4. Each student is expected to maintain academic ethics and avoid dishonesty in all its forms, including but not limited to, cheating and plagiarism, and fabrication as defined hereafter:

   a. Cheating is the act of using, attempting to use, or providing others with unauthorized information, materials, or study aids in academic work. Cheating includes, but is not limited to, passing examination answers to or taking examinations for someone else or preparing or copying another's academic work.

   b. Plagiarism is the act of appropriating any other person's or group's ideas or work (written, computerized, artistic, etc.) or portions thereof and passing them off as the product of one's own work in any academic exercise or activity.

   c. Fabrication is the use of invented information or the falsification of research or other findings. Examples include but are not limited to:

1) Citation of information not taken from the source indicated. This may include the incorrect documentation of secondary source materials.

2) Listing sources in a bibliography not used in the academic exercise.

3) Submission in a paper, thesis, lab report or other academic exercise of falsified, invented, or fictitious data or evidence, or deliberate and knowing concealment or distortion of the true nature, origin, or function of such data or evidence.

4) Submitting as your own any academic exercises, (e.g., written work, printing, sculpture, etc.) prepared totally or in part by another.

SANCTIONS

The purpose of sanctions is to provide a uniform method of dealing with infractions of the Student Code at Utah Valley State College. This process ensures that each situation considered for action receives a fair and impartial hearing. In preparing the procedure, careful attention will be given to the Student Code of Rights and Responsibilities including the legal rights provided citizens under the Constitution of the United States and the State of Utah.

Sanctions are assigned in accordance with two criteria:

1. The educational value for the person penalized.

2. The consistency between the offense and the penalty assigned.

INSTITUTIONAL SANCTIONS

The student found in violation of the Student Code may be subject to one or more of the following sanctions:

1. Warning: Verbal or written notice to a student that his/her conduct may be in violation of College rules and regulations and that the continuation of such conduct or actions may result in further disciplinary action.

2. Reprimand: Issuance of a written censure by the faculty member or College official stating violations and possible penalties sent to the student and also kept on file.

3. Probation: A specified period of observation and review of conduct during which the student must demonstrate compliance with College rules and regulations. Counseling or participation in specific courses or workshops for a specified period of time may be required. Terms of probation and the probationary period will be determined at the time the sanction is imposed. Appropriate College officials shall be notified of the imposition of the sanction.

4. Suspension from Participation in a Restricted Enrollment Program: The opportunity to participate in a restricted enrollment program may be denied or suspended.

5. Suspension of Specific Privileges: The opportunity to participate in extracurricular activities; attend campus activities; utilize campus facilities, resources, and services; or other such measures may be suspended for a specific period of time, up to one year.

6. Suspension of Use of Specific College Services: The right to access and receive transcripts, to register, etc., may be suspended for a specific period of time or until specific conditions are met.

7. Separation of the Person from the College: Separation of the person from the college for a specified or indefinite period of time. Temporary and/or permanent suspension may appear on the student's transcript. Participation in any college-sponsored activity or the person's physical presence on the campus may be restricted.*

8. Expulsion: The student may be permanently separated from the College. A permanent indication of expulsion will be made on the student's transcript. The person can also be barred from the College campus or campus activities.*

9. Readmission: Students separated from the College may reapply with the consent of the Campus Appeals Board and the President of Utah Valley State College.

**Sanctions 7 and 8 will be recommended to the President of Utah Valley State College for implementation.*

MONETARY SANCTIONS

1. Forfeiture: Loss of tuition and/or monies due to an individual or group and/or other appropriate fees may be imposed jointly with expulsion, suspension, suspension of specific privileges, or probation.

2. Restitution: Reimbursement for damage to or misappropriation of property, which may take the form of direct financial compensation and/or up to 20 hours per week of uncompensated work for the College, community, or other forms of indirect compensation as outlined in the official decision.

3. Fines: Payment of punitive fines may be required. Fines may be imposed separately or in conjunction with any other individual sanction or combination of sanctions. A portion of the fine may be suspended pending successful completion of other sanctions. Failure to make required payment may result in cancellation or denial of academic registration or to hold office in student organizations (ASUVSC).

PERSONAL DEVELOPMENT SANCTIONS

Requirements or recommendations for counseling, enrollment in specific campus courses, or workshops may be made. If requirements are not met, probation and further sanctions may result.

INDIVIDUAL/GROUP SANCTIONS

Any single sanction or combination of sanctions listed in this Student Code, including the loss of ASUVSC status, may be imposed against an entire group, individual group officers, or individual group members, arising from their conduct in or leadership of the group, pursuant to the provisions for personal conduct outlined in this Student Code. Notification of any sanction imposed may be made to national affiliates and officials.

TEMPORARY/INTERIM/ EMERGENCY SANCTIONS

In special circumstances, any sanction listed below may be temporarily implemented prior to a hearing and carried out by official enforcement agencies or officers.

1. Situations in which there is reasonable cause to believe the continued presence of either the student or a student group on campus or at College events poses an unreasonable risk of harm to the health, safety, or welfare of the college community or individuals in the college community include:

   a. Threatening or inflicting bodily harm on oneself or others;

   b. Inflicting serious emotional or mental distress or fear on oneself or others;

   c. Creating a substantial disruption of normal campus functions, including campus instruction;

   d. Presenting a threat to the stability and continuance of any normal College function;

   e. Being arrested on misdemeanor or felony charges.

2. Any student/student group receiving a sanction on an interim basis shall be given the opportunity for a review by the College Appeals Board chair or another appropriate authority before a hearing committee within a reasonable time period from the effective date of the action.

3. If, after a review, the determination is made that a student or registered student organization did not violate College policy or fall under the provisions of this emergency section, arrangements will be requested of faculty members so that any missed academic work may be made up.

4. As soon as possible, the chair of the appropriate committee will schedule a hearing to determine if temporary sanctions should be extended or become permanent.

PENDING CIVIL OR CRIMINAL ACTIONS

Civil or criminal court actions may be grounds for sanctions imposed by the college before or after courts have determined guilt or civil liability.

1. College actions, in addition to formal civil or criminal legal action, may be considered at the request of campus police or other interested parties. Such an issue must allow for due process before further action is taken.

2. Temporary sanctions may be imposed, based on guidelines outlined in this Student Code.

3. Permanent sanctions may be imposed only after a hearing committee decision is reached.

4. The due process procedures and guidelines outlined in this Student Code must be followed where permanent sanctions or additional College sanctions may be imposed.

APPEALS

As with all issues, problems should be resolved at the lowest possible level and shall involve individuals closely aware of, and involved in, the issue(s) before seeking appeals.

In the case of appeal hearings, penalties may not be assigned that are more severe than those assigned by the lower body unless additional evidence has been presented justifying such an action.

Penalties may not be overthrown until a review of written lower body recommendations and evidence. (See Grievance Procedures)

GRIEVANCE PROCEDURES

The appeals procedure outlined hereafter applies to all student grievances. Individuals who feel they have been unfairly treated may make a written appeal through the appropriate channels described herein.

The primary purpose of this document is to provide a set of procedures through which a student may seek redress, or be disciplined for violations of college policies and practices that are relative to provisions found in the Student Rights and Responsibility Code. The grievance procedure is not applicable for situations deemed more appropriate for other appeal and adjudication procedures provided by the College.

TYPES OF COLLEGE APPEALS

Academic Grievances

For academic grievances, the channel of appeal shall be through the Academic Department regarding academic dishonesty, plagiarisms, cheating, grade change, withdrawals, etc. by contacting the respective department coordinator or chairperson.

Discrimination Grievances

For matters related to discrimination on the basis of national origin, race, color, sex, sexual harassment, marital or parental status, religion, age, the channel of appeal shall be through the Equity Officer by contacting the office of Human Resources or the office of Student Life.

General Student Grievances

For general student grievances in which alleged violations of the Student Rights and Responsibility Code are involved, an individual may petition for a hearing by contacting the Office of Student Life in SC 109.

FILING A GRIEVANCE

Individuals utilizing any grievance procedure may do so by completing and submitting the appropriate appeal form to the responsible body. Appeals subject to the Campus Appeals Board should be submitted no later than 14 days following the time of the alleged violation. College personnel directly involved in or knowledgeable about the student(s) issue must also respond within 14 days, after which the procedure will automatically proceed to the next step as outlined in the Campus Appeals Board procedure (steps 1-3) as listed below.

CAMPUS APPEALS BOARD PROCEDURE

1. The aggrieved student is encouraged to first confer with the individual(s) involved in the grievance in an attempt to resolve the problem informally. This could include assistance from the Office of Student Life.

2. Unresolved grievances shall be filed in written form, utilizing the Campus Appeals Board appeal form, and submitted to the respective chairperson or his/her designee. The chairperson, within 14 days from the date of the grievance filing date, shall conduct a formal hearing or inquiry and shall attempt to resolve the matter impartially as quickly as possible.

3. If the panel's decision requires a student's separation or termination from school, the recommendation for dismissal will be forwarded with copies of all documentation to the College President or his/her designee who shall accept the panel's decision or provide written exception after review of all evidence presented. The decision of the President or his/her designee shall become the final institution decision. The College President will provide the hearing panel a written copy of his/her final decision within 14 days.

At the step the grievance is resolved, a written statement shall be prepared, signed, dated, sent to appropriate parties and filed with the appropriate corresponding office.

HEARING COMMITTEE/HEARING AND DECISIONS

The Campus Appeals Board shall constitute the hearing panel, consisting of at least two faculty (selected by the Faculty Senate Executive Board), one staff member (selected by the PACE Board), three student representatives (selected by the student body President). The hearing panel shall serve three, two-, or one-year terms as needed to provide continuity. The intent of the Board will be to establish a hearing panel that is unbiased. Therefore, all panel members shall be impartial toward the case before them. The Dean of Student Life will appoint panel members as needed where members are disqualified or unavailable for the entire hearing. The panel will receive legal advise in conducting such hearings.

Due process shall be accorded to all parties involved in the grievance including their right

to notice of hearing, time and date, a list of charges, the right to obtain advice from counsel, the right to present witnesses, and the right to present written statements.

Should any of the parties by their choice wish not to attend, the hearing will continue to be conducted. No fewer than five committee members will hear grievances put before the panel. Decisions by the hearing panel will be by majority vote of the members present at the meeting. At the completion of the hearing, a decision will be rendered and announced by the panel chairperson.

A panel's written decision will be made available within 14 days following the conclusion of the final hearing. Copies of the written decision shall be provided to appropriate parties and official officers.

WITHDRAWAL

A grievance may be withdrawn by the grievant at any time without prejudice.

REPRISALS

No reprisal of any kind shall be taken by or against any party or legitimate participant in the grievance procedure by reason of such participation; however, individuals furnishing false information and/or documentation to the hearing panel are subject to disciplinary action.

CONFIDENTIALITY

Appropriate confidentiality will be observed in all grievance procedures and record thereto.

INFORMAL RESOLUTION OF GRIEVANCE ENCOURAGED

Nothing contained herein shall be construed so as to limit in any way the ability of the grievant and the College to resolve any grievance mutually and informally.

APPROVAL AND AMENDMENT

1. Approval

   Approval of the Student Code becomes effective immediately as per college policy and procedure and approval of the College Board of Trustees.

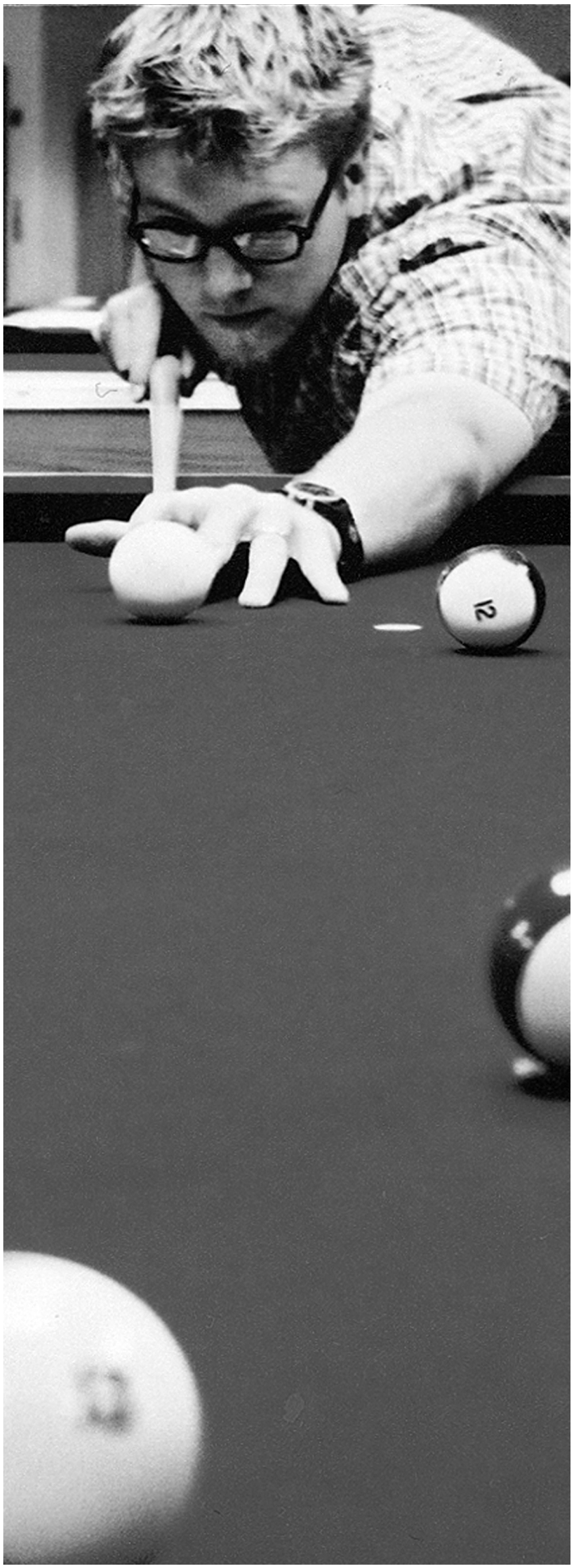
2. Amendment

   Any member of the UVSC community may recommend amendment of this procedure by submitting such recommendation in writing to the Student Rights and Responsibility Committee. An amendment becomes effective immediately as per College policy and procedure and approval of the College Board of Trustees.

CAMPUS APPEALS BOARD
GRIEVANCE PROCEDURES
Utah Valley State College
800 West University Parkway
Orem, UT 84058-5999

THE ASSOCIATED STUDENTS OF UTAH VALLEY STATE COLLEGE

ALL STATEMENTS HEREIN ARE BELIEVED TO BE TRUE AND CORRECT AT TIME OF PUBLICATION. UTAH VALLEY STATE COLLEGE RESERVES THE RIGHT TO MAKE NECESSARY CHANGES, DELETIONS, OR REVISIONS.



Student Services

ACADEMIC TUTORING

Academic Tutoring is available at no charge to all UVSC students. Qualified tutors provide one-on-one tutorials and help lead group study sessions and workshops. Information about tutoring or learning assistance programs may be obtained by contacting coordinators of any of the following services.

Learning Assistance

Bonnie Jean Blackburn, M.A., Learning Strategist
Office: LC 208
Telephone: 801-863-7418
http://www.bonnie.blackburn@uvsc.edu

The Learning Strategist provides many resources:

- counseling to develop a personalized program of effective study processes
- advisement for students transitioning from pre-college into college level courses
- preparation for the Compass test
- stress management and test anxiety assistance
- student success workshops, individual, and group appointments
- referral to other services and agencies

Math Lab

Kathryn Van Wagoner, Coordinator
Academic Tutoring: LA 201
Telephone: 801-863-8310
http://www.uvsc.edu/mathlab

The Math Lab offers free drop-in math tutoring for all UVSC students in a relaxed, friendly atmosphere. Video-taped lectures are available for use in the lab, as well as solution manuals. Other resources include individual tutoring, group tutorials, a group study room, and live Internet tutoring through MathLab Online.

Peer Tutoring

Regie Holdaway, Coordinator
Drop In Lab: LC 202
Telephone: 801-863-8356
http://www.uvsc.edu/opt

Free tutoring assistance for all classes other than math or English is available in the Peer Tutoring Center to all UVSC students. Services include drop-in tutoring and Supplemental Instruction. Live, interactive tutoring is also available for some classes on the Internet through Online Peer Tutoring.

Writing Center

Lisa Eastmond Bell, Coordinator
Academic Tutoring: LA 201
Telephone: 801-863-8310
http://www.uvsc.edu/owl

The Writing Center provides free one-on-one tutoring to all UVSC students. Students may bring writing assignments for any class and meet with a tutor by appointment or by dropping in for a tutorial. In addition, the Center offers writing workshops, handouts, practice grammar tests, typing tutorial programs, reference books, textbooks, writing manuals,

ESL materials and the On-line Writing Lab (OWL).

ACCESSIBILITY SERVICES DEPARTMENT
(SERVICES FOR STUDENTS WITH DISABILITIES)

Office: WB 146
Telephone: 801-863-8747

Provides accommodative services necessary for the integration of students with disabilities into all aspects of college life in accordance with *The Americans with Disabilities Act* and other applicable legislation. UVSC will take all steps necessary to ensure that no qualified individual with a documented disability is excluded from participation in or be denied the benefits of services, programs, or activities of UVSC for which he/she would otherwise qualify to participate. In addition, individuals with disabilities will not be subjected to discrimination by the college or its personnel. Services are available to students who have documentation substantiating a physical, psychological, or learning disability. Services include: sign language interpreting, testing accommodations, text on tape, note taking, adaptive equipment, educational planning, and other individualized services.

ALUMNI ASSOCIATION

Office: EB 010j
Telephone: 801-863-8179

The UVSC Alumni Association exists to serve both present and former students, and operates utilizing a "perpetual fund" concept used by Utah's pioneer ancestors. Today's students are the beneficiaries of former students, who continue to give to UVSC, and replenish the resources they used while they attended school. Just as yesterday's students were the recipients of gifts from a previous generation, the students of today will be expected to replenish those resources they have used to obtain their education.

The UVSCAA provides benefits and support for over 100,000 UVSC alumni, and is responsible for many services, like publishing SEQUEL Magazine, benefits programs, access to UVSC athletic facilities, and other similar offerings. In addition, the UVSCAA maintains its home page, located on the internet at www.uvsc.edu/alumni, where both students and alumni can access various services of the association.

The UVSCAA also sponsors and provides scholarship for the Student Alumni Association (SAA), which is involved in hosting important events on campus, activities, and regional and national conferences. In addition, SAA is involved in service projects and fund-raisers for various charitable causes. Membership in SAA is open to all students, but an application must be submitted to the Alumni Office, located in the Institutional Advancement office in EB-010j. For more information about this and other Alumni related topics, call 801-863-8179

BOOKSTORE

UVSC Wolverine Pride Bookstore
Located: SC 102
Telephone: (801) 863-8641
Hours:
- Mon-Thurs 7:45 am-7:00 pm
- Fri 7:45 am-5:00 pm
- Sat 9:00-1:00 (Fall and Spring semesters only)
- Mon & Fri 8:00 am-5:00 pm (Summer semester only)
- Tue, Wed, Thurs 8:00 am-6:00 pm (Summer semesters only)
- Closed Sunday

The bookstore is open each weekday to serve the students, faculty and staff of UVSC. At the bookstore you will not only find your required text books, but also everything else you will need for your college career: school supplies, computers, academically-priced software, general reading material, reference books, candy and sundry items, and UVSC apparel.

THE BUTLER INSTITUTE FOR INTERNATIONAL UNDERSTANDING

Office: WB 100
Telephone: 801-863-8342

Established more than a decade ago, the Ross and Margie Butler Institute for International Understanding coordinates UVSC's international student services and educational activities. The International Student Services section of the Butler Institute manages the federally mandated Student and Exchange Visitor Information System (SEVIS) on behalf of UVSC. Professionally trained advisors work to ensure that UVSC's international students maintain their legal status and successfully adjust to their new living environment. In addition to managing the college's SEVIS compliance, the Butler Institute's director oversees the coordination of UVSC's international sister-school relationships and short-term training programs. In addition, the Butler Institute staff assists with hosting distinguished international visitors, advising and supporting the International Student Council, and promoting various international educational and cultural activities for the campus and Utah Valley communities.

Directly related to UVSC's mission to provide "international opportunities" to students, the Butler Institute's International Study Programs section provides support for faculty and academic departments regarding international faculty exchanges, visiting scholars, Fulbright Program opportunities, and faculty-directed study abroad. The Institute's associate director collaborates with UVSC faculty and staff in developing and coordinating the College's study abroad, international internship, and overseas volunteer opportunities. Recently, faculty led study abroad experiences in Ghana, Italy, England, and Spain. The Institute's staff works hard to maintain economically feasible opportunities while providing safe, high-quality international academic experiences.

CAMPUS CONNECTION

Student Center
Telephone: 801-863-8797

Campus Connection provides information on all student activities sponsored by or held at the College campus. Campus Connection is open from 8:00 a.m. to 7:30 p.m. Monday through Thursday, 8:00 a.m. to 5:00 p.m. on Friday, and 9 a.m. to 1 p.m. on Saturdays. Holiday hours may vary.

ID/Library Card/Activity Card/Wolverine Debit Card (available at Campus Connection)

The card will allow access to most student activities, athletic events, library book check-out, PE Issue Room, and athletic facilities. Student fees entitle each student to one ID/Activity Card for the duration of his/her enrollment at UVSC. Students should save their cards even if they skip a semester or a year or two, because the card is automatically validated when registration is paid. Replacement cards (lost, stolen or name changes) are $10.

Your ID/Activity Card can also be a valid UTA Bus Pass by taking your UVSC ID and current semester tuition receipt to Campus Connection to obtain a UTA bus pass. It also offers entrance into selected different community events, activities, and dances.

The Wolverine Debit Card is a debit account made available for students to deposit funds at Campus Connection and then to use their card to make purchases on campus for food, books, and special event tickets. Students can also pay for their tuition and fees at the Cashiers office with their Wolverine Debit Card. When the Wolverine Debit Card is used in food services, students receive a 5% discount. VISA, MasterCard, and Discover cards are accepted to put money on the Wolverine Debit Card.

Other Services

Lost and Found for the College Campus; Box Office for various Campus and community events; UTA Bus Passes; general information.

US Post Office

Student Center
Telephone: 801-863-6067

The US Postal Service is also available across the hall from Campus Connection. Stamps (singles, books, and rolls), Packaging Products, Express, Priority, Media-Mail, Bound Printed Matter, Global Priority, Global Express, Global Air Mail, Global Economy, Registered, Certified, Delivery Confirmation, and so forth, are available. Mail pickup is at 3:45pm Monday-Friday and 12:45pm on Saturday. Cash, Check, Credit and Debit Cards are accepted. Sorry, no Wolverine Debit Card use for the Post Office.

CAREER AND ACADEMIC COUNSELING CENTER

Office: WB 147
Telephone: 801-863-8425 or 863-8386
Hours:
Mon., Fri. 8:00 am - 5:00 pm
Tues., Wed., Thurs. 8:00 am - 6:00 pm

The Career and Academic Counseling Center provides comprehensive services to students, alumni, and members of the community. These services include academic advising and counseling, career assessment and counseling, academic standards, college transfer information, and advisor training.

Academic Advising and Counseling

Academic counselors are available to assist students in determining and achieving their educational goals. Advisors are qualified to help students select majors, review prior education, and plan educational programs.

Specific help is given to students in understanding General Education requirements for various degrees. Students are referred to department advisors for help in meeting department requirements. Other services provided include assisting students experiencing academic difficulties and help with academic standards. Individual assistance and workshops are available to students experiencing these academic difficulties.

Referrals are made to help students achieve their educational goals. These include referrals to personnel in the Accessibility Services Center, Student Health Services, Testing Services, General Academics, and to academic department advisors.

Advisor Training

Advisor Training at UVSC is an evolving campus-wide program based on the standards outlined by the Council for the Advancement of Standards (CAS) in Higher Education. Training is initiated by a computer-based Orientation program to familiarize new advisors with many of their advising duties and school resources. An on-line Advisor Handbook provides detailed information about school policy and procedures. Advisors are also encouraged to participate in one-on-one, small group, and Advisement Forum training sessions. The goals of the program include the following objectives:

- Develop and improve training programs for new academic advisors
- Disseminate current information and resources.
- Model and facilitate best advising practices to advisors
- Cultivate professional relationships among administrators, departmental advisors, central advisors and other academic/student support services.
- Oversee and facilitate peer advising at Instant Info kiosk centers.
- Provide continuing professional development through the campus Advisement Forum.

Career Assessment and Counseling

Our counselors provide a full range of vocational evaluation and counseling services to students, faculty and the community. Assessment and evaluation services are available in the following areas:

- academic achievement
- vocational interests
- personality preferences
- work values
- learning styles

Counselors guide students through individual counseling sessions, group workshops, career library resources, and computerized career information systems. Counseling services include:

- test interpretation
- labor market information
- occupation information
- computer-assisted testing
- career exploration
- written vocational evaluations

Academic Standards

Under the direction of the CACC Director, the academic standards office administers the academic standards policy, oversees the suspension petition process, trains faculty and staff in student support methods and policies, counsels and assists at-risk students on warning, probation, and suspension, and oversees the peer mentor program. For more information regarding the academic standards policy, see page 19.

College Transfer Information

Detailed information and counseling regarding transferring into UVSC and out to other colleges and universities is available, including:

- Articulation agreements between UVSC and other state colleges and universities including degree transfer (AA and AS), course preferences, and GPA requirements.
- Application procedures and deadlines.
- Information about graduate schools and admission requirements.

"THE JOB PLACE"...AND MORE! CAREER AND STUDENT EMPLOYMENT

Office: BA 113
Telephone: 801-863-8395
E-Mail: cse@uvsc.edu
http://www.uvsc.edu/cse
Hours: 8:00 AM - 5:00 PM M, F
8:00 AM - 6:00 PM T, W, Th

Our mission is to provide comprehensive employment related services to students and alumni, and to foster professional relationships with faculty, staff and administrators. We seek career employment opportunities by developing valued relationships with premier employers. We help students and alumni develop job search skills leading to meaningful career and student employment, and service to society. Our services include access to:

- UV Job Board and eRecruiting at www.uvsc.edu/cse for students and employers (on-line job posting, job search, submitting resumes, scheduling interviews, etc.)
- Off-campus full-time, part-time, summer and temporary job openings
- On-campus, part-time student employment
- Federally-funded work study jobs
- Internship and Cooperative Education positions
- Counseling on career employment planning and preparations
- Training and workshops on writing resumes, interviewing and networking
- Labor market, salary and career employment information
- Career and Student Employment Fairs
- Local, national and international employers recruiting on campus
- Group and class presentations on career employment related topics

CENTER FOR HIGH SCHOOL STUDIES

Office: 243E 2230N, Provo or SA 325
Telephone: 801-374-4840

The Center for High School Studies offers services to all UVSC students who begin their college studies before they have earned a high school diploma. The purpose of the Center is to help students convert college credits into credits that apply toward high school diplomas. Any UVSC student can participate regardless of age, school district boundaries, or resident status. Services for the Center include counseling for high school completion, high school level classes, and GED testing information and preparation. The Center is located in the Auto Trades Building (SA 325) on the Orem Campus.

THE CENTER FOR SERVICE AND LEARNING

Office: SC 101
Telephone: 801-863-8786

The Center for Service and Learning is dedicated to providing service and service-learning opportunities for the students, faculty, and staff of UVSC. Through programs and projects in the classroom, the community, and the world, the Center works to increase social and cultural awareness, build a sense of community commitment, and extend meaningful educational opportunities that increase knowledge and enhance academic skill. These goals are realized through community outreach, classroom-based service-learning, service expeditions and leadership development programs. Students, faculty, and staff are encouraged to get involved.

THE CENTER FOR STUDENT COMPUTING

Office: SC 116
Telephone: 801-863-8948
http://csc.uvsc.edu

The Center for Student Computing has been established to provide computing resources and technical support services that enhance the educational experience of the students of UVSC. These services include: The Open Student Computer Labs, Campus Kiosks, student account management, UVlink portal.

The Open Student Computer Labs are available to all currently registered UVSC students on a first-come, first-serve basis. No charge is required for the use of the computers. Lab Assistants are available to provide support and to help keep the equipment running. These labs contain 135 computers and have Internet access and E-mail as well as popular application software to assist students with their class work.

The "Computer Loft" is located in SC215 on the second floor of the Student Center across from the Ragan Theater. With 55 workstations this is the largest open lab on campus. The hours in this lab are 7:00 am to 11:00 pm Monday through Thursday, 7:00 am to 7:00 pm Friday, and 9:00 am to 5:00 pm on Saturday. Check with lab assistant for holiday hours. The lab's telephone number is 801-863-6081.

The "Fishbowl" lab is located in SC116 at the north end of the Student Center. The hours in this lab are 8:00 am to 6:00 pm Monday through Friday. The lab's telephone number is 801-863-8390.

The "Greenhouse" lab is located in PS101 at the junction of the Student Center, Science Building, and Activity Center. The hours are 8:00 am to 6:00 pm Monday through Friday. The lab's telephone number is 801-863-7147.

The "Spy" lab is located in BA008 in the basement of the Administration Building. The hours are 8:00 am to 6:00 pm Monday through Friday. The lab's telephone number is 801-863-6070.

OnAccess Student Information System is for internet access to class registration, degree information, and grades. To use this system you must be accepted for admissions and have a PIN number that is assigned at the time you were admitted.

Student network and E-mail account management are handled by a program that was developed for The Center for Student Computing and is used to create all student network and E-mail on campus.

CLUBS AND ORGANIZATIONS

Office: SC 105
Telephone: 801-863-8835

Clubs and Organizations, also known as UV Clubs, connects students to UVSC in a unique way that reflects each student's individual interests and academic desires.

UV Clubs, a branch of ASUVSC, works with over 70 active clubs facilitating club success on campus. Many clubs are very active on campus and have received local, state, and national recognitions.

By getting involved in a club or organization students have the opportunity to increase leadership, citizenship, and service skills that enhance UVSC and the community. Students meet new people, and most of all, have fun. For information on existing clubs and/or procedures for chartering a new club, contact the UV Clubs Office in SC105.

DAVID O. MCKAY EVENTS CENTER

Office: MC 012
Telephone: 801-863-8767

The David O. McKay Events Center is a multipurpose facility serving the College and the community. The Events Center hosts a variety of local and special performances, sports events, educational seminars, concerts, conventions, trade shows, lectures and other community gatherings.

Some events that are hosted here include basketball and volleyball games; ballet, symphony, and circus performances; rodeos, business trade shows and expos as well as various types of concerts. The events center is an excellent choice for hosting any kind of event.

Athletics

The mission of UVSC Athletics is to provide a wide range of athletic programs that are highly competitive and nationally recognized on a consistent basis. The department seeks to provide the individual athlete with the opportunity to improve athletic skills and abilities while obtaining an exceptional quality education with the best facilities and coaching staff available, to benefit the athlete in future academic, athletic, and vocational endeavors. Each student-athlete is required to be in good standing academically and making progress toward an associate degree.

Financial Aid is available in all sports, with awards ranging from "Full-Ride" scholarships to partial scholarships for tuition, fees, or books.

The Wolverines compete in the National Junior College Athletic Associations Region 18, Scenic West Athletic Conference, in the following sports: Baseball, Men's and Women's Basketball, Men's and Women's Cross Country, Men's and Women's Indoor and Outdoor Track and Field, Women's Volleyball, Men's Golf, and fast pitch Softball.

Club sports associated with the athletic department are Men's and Women's Soccer, Men's Volleyball, Lacrosse, Men's and Women's Tennis, and Rodeo.

For more specific information regarding any sport or team, please call our Athletic Department Office at (801) 863-8653, or look us up on the internet at: http://www.uvsc.edu/depts/athletic.

Cheerleaders and "THE WOLVERINE"

The UVSC Cheerleaders are a large part of promoting fan involvement and enthusiasm at UVSC athletic events. The squad consists of highly talented young men and women who perform stunting and tumbling routines.

The WOLVERINE is the school mascot who is

also involved in crowd interaction and may be seen hanging from the rafters or dropping through the middle of the basketball hoop to excite fans.

Tryouts for these positions are held each spring, and specific information about tryouts may be obtained by calling Student Leadership and Activities at 801-863-8150.

Dance Team

The UVSC Dance Team is comprised of 12-16 skilled dancers who perform regularly at UVSC Athletic Events. The Team employs a wide range of styles and utilizes Jazz, Funk, and Lyrical Dance numbers, all choreographed by the team members and director. Tryouts are held each spring, and more information may be obtained by calling Student Leadership and Activities at 801-863-8150.

DINING SERVICES

Office: SC 201
Telephone: 801-863-8664

The Dining Services Department is operated by and under the direction of Auxiliary Services in the Sorensen Student Center. The mission of the department is centered to students and their dining enjoyment and benefit.

The Centre Courte main food court is located on the main floor of the Sorensen Student Center. With the recent expansion of the Student Center, food service options are plentiful. The "CENTRE COURTE" has a large variety of retail food options: Chick-fil-A, Courte Side Grille, Stone Willy's Pizza, Wolverine Cuisine Corner, Hogi-Yogi, Teriyaki Stix, and La Esquina Fresh Mexican Food complete the food court list. Areas of the Food Court will open at 10:00 A.M. and close at 7:30 P.M. Located just adjacent to the game room is the Scoops Ice Cream Shoppe. Its hours of operation are from 8:00A.M. until 8:00 P.M., offering convenience store items and an ice cream parlor through the day and evenings when the Student Center has late events scheduled.

Located directly above the Food Court is an additional dining facility. Named for its exquisite view of the Utah Valley, the Valley View Room offers a more relaxed and unique atmosphere for students, faculty and staff. Its hours of operation are 7:00A.M. to 3:00P.M. Monday through Friday.

The Sorensen Student Center and Catering Services is recognized in the community as the areas finest catering services. It has earned a reputation in outstanding dining service quality for over 20 years. Clientele range from students, administrators, staff personnel, conference groups, weddings, class reunions and local community groups. The Dining Services Department provides an excellent source of employment opportunities for students.

DISABILITIES SERVICES
(ACCESSIBILITY SERVICES DEPARTMENT,

Office: WB 146
Telephone: 801-863-8747

See *Accessibility Services Department* in this section.

EXTRAMURAL/INTRAMURAL SPORTS

Office: SC 108
Telephone: 801-863-6163

The Extramural/Intramural Sports Department offers a variety of different competitive activities for UVSC students. Intramural activities include team sports such as basketball, flag football, volleyball, and ultimate frisbee, as well as individual and dual sports including racquetball, tennis, chess, and many others. Competitive opportunities are available for men, women, and co-ed participation. Most activities have a minimal fee. In additon to Intramural sports (teams within UVSC competing against one another), we also have Extramural Sports (teams from UVSC that compete against other campuses). Extramural activities include teams sports such as Men's Soccer, Men's Volleyball, Men's Lacrosse, Men's Rugby, Men's Golf, and Rodeo Team.

LIBRARY

Losee Center (3rd & 4th Floor)
Telephone: 801-863-8886
Fax: 801-863-7065
http://www.uvsc.edu/library

Director: Michael J. Freeman
Office: LC 403
Telephone: 801-863-8751

Assistant Director: Kimberly Rollins
Office: LC 312e
Telephone: 801-863-8752

Hours: Mon-Thurs 7:00 am-11:00 pm
Fri 7:00 am-7:00 pm
Sat 8:00 am-5:00 pm

Advisory Committee: Cindy Clark, Chair; Jeff Kahn; Gene Nelson; Joel Sybrowsky

The library houses over 195,000 volumes, 10,000 videos, and over 18,000 periodicals in print or electronic format. Reference service is available to assist students doing research; formal classroom instruction is also available. The library network provides electronic access to 95 indexes and databases, six full-text newspaper databases, and library catalogs throughout Utah, the United States, and around the world. Full Internet access is provided. Through the Utah Academic Library Consortium, UVSC student cards are good at all public and private academic libraries in the state. Web-based Interlibrary Loan moves materials quickly between consortium members. The library contains reserve materials (including electronic reserve) for instructors, a teacher education resource center, specialized hardware and software for students with disabilities, and hosts a series of art exhibits throughout the year.

LOCKERS

Physical Plant Office
936 South 400 West, Orem
(Next to Parking Services)
Hours: Mon - Fri, 7:00 a.m. to 5:00 p.m.
Telephone: (801) 863-8130

Lockers are available for student use in the Gunther Trades Building and are rented through the Facilities/Physical Plant Office. Locker rentals are $5 per semester or $13 per year. This fee is non-refundable. Renewal of lockers needs to be completed before the end of the semester to avoid locker changes and clearance of contents. The renter is responsible for any damages to the locker(s).

MATH LAB

Academic Tutoring: LA 201
Telephone: 801-863-8310
http://www.uvsc.edu/mathlab

See *Academic Tutoring* in this section.

MULTICULTURAL CENTER

Office: WB 145
Telephone: 801-863-8357

The Multicultural Center provides a full range of support services for minority (African American, Native Americans, Pacific Islanders, Asian Americans, Hispanics and many others), non-traditional and educationally disadvantaged students of all backgrounds. Services include:

- recruitment and retention programs
- educational and cultural programs
- academic and financial aid advising
- tutoring and counseling
- scholarship information
- computer/study area access
- social gatherings
- ethnic club membership
- leadership opportunities
- cultural talent opportunities

OFF-CAMPUS HOUSING

Office: SC 103
Hours: Mon - Fri, 8:00 a.m. - 4:00 p.m.

Telephone: 801-863-8659
http://www.uvsc.edu/housing
E-mail: herdjo@uvsc.edu

The off-Campus Housing Office provides a variety of housing services. Information concerning local housing is available at the Housing Office, on our website: www.uvsc.edu/housing, or it can be mailed to you.

The UVSC campus does not provide dormitories, but they work with local landlords to provide accurate and up-to-date information on all housing listed by the Housing Office.

Should disputes between a Landlord and a UVSC Student Tenant arise, a free mediation service is available through the office of Judicial Affairs & Dispute Resolution located in SC-107, 801-863-8694.

THE OFFICE OF PERSPECTIVE STUDENT SERVICES

BA 115, BA 100a
800 West University Parkway
Telephone: 801-863-8811
Fax: 801-863-7305

The Office of Prospective Student Services provides information to prospective UVSC Students, promotes UVSC, and establishes positive relationships with high school and junior college counselors and administrators. Utah Valley State College is also promoted by attendance at college, and education fairs

The Office of Prospective Student Services also provides Campus Tours. To schedule an individual or group tour call us at 801-863-8811. For more prospective student information visit our website, http://www.uvsc.edu/prospective.html or call an Orientation Leader at 801-863-7445.

OMBUDS

Office: SC 107
Telephone: 801-863-8665

Within the UVSC community misunderstandings and disagreements needing resolution occur. The UVSC Ombuds is a mediator who is familiar with campus policies, student's rights and responsibilities, and can help find useful options within these guidelines. In order to serve as a mediator, as opposed to an advocate, the Ombuds neutrally and objectively listens to all problems and works with the parties involved to find a solution. We hope you use this person as a resource for help in a variety of difficult situations. The Ombuds provides the following services:

- Academic Complaints and conflicts
- Housing/Landlord disagreements
- Discrimination
- Grading procedure disputes
- School policy and procedures
- Interpersonal conflicts
- Sexual Harassment
- Others

All services are offered to UVSC students free of charge.

ONE STOP STUDENT SERVICES

Office: BA 106
Liz Childs, Director
Office: BA 112
Telephone: 801-863-8460

The mission of One Stop is to provide quality professional services in the areas of Enrollment, Financial Aid, Parking and Payments, in support of students' academic objectives. UVSC One Stop affirms that the student is the heart of the educational enterprise.

One Stop Advisors provide assistance to prospective and current students in the following areas:

- Admissions
- Registration
- Parking
- Payments
- Financial Aid

Each of these processes are also available through UVSC on-line services.

OUTDOOR EDUCATION

Office: SC 103h
Telephone: 801-863-7052
Hours: Mon-Fri, 9AM - 5PM

The Outdoor Education department provides students, staff, and faculty an opportunity to learn from the vast outdoor classroom. We offer students a chance to experience nature while also learning how to protect and preserve the natural environment. Opportunities range from clinics, adventure outings and outdoor equipment rentals. Rentals include; but are not limited to - white water inflatable boats and kayaks; two, three, four, and six person tents; sleeping bags; nordic ski packages; snow boards; and snowshoes. We also have a resource library with maps, books, and videos. Stop by and take advantage of this great resource, located in the Student Center SC 103h or visit our website at www.uvsc.edu/outdoored.

PARKING

Parking Services: 936 South 400 West, Orem
Telephone: 801-863-8188

Adequate student parking is available on campus. Restricted parking zones, which are clearly posted, are provided for faculty, staff visitors, and others. Students, faculty, and staff are required to obtain parking permits for each vehicle parked on the College campus. Parking permits may be purchased at the Campus/Parking Services Office located at the northeast corner of the campus on 936 South 400 West in Orem or at our satellite office in the Student Center.

Parking for People with Disabilities

Only those vehicles carrying distinctive (logo) license plates for people with disabilities or temporary permits obtained from the Utah State Division of Motor Vehicles at 150 East Center in Provo plus a valid UVSC handicapped parking permit shall be allowed to park in stalls for the disabled.

Student and Employee Parking

Students and employees operating vehicles on College properties must adhere to all state, local, and college traffic/parking regulations. To park on campus, students and employees must obtain a valid parking permit from Parking Services. Before a permit can be issued to a vehicle, proof of registration and current emissions must be shown.

Parking Services also provides a campus map and a copy of campus parking regulations.

Visitor Parking

Visitors operating vehicles on College properties must adhere to all state, local, and college traffic/parking regulations. Free parking is provided for visitors in Lot U, or free day passes may be obtained at the Parking Services Office at 936 South 400 West in Orem. The free passes will allow visitors to park in any student or employee area on campus. Visitors may also park in the metered areas or in Lots L, or D, which are pay lots. Visitors using these pay areas are required to pay the fees for these areas.

PHYSICAL EDUCATION BUILDING

Physical Education Building
Telephone: 801-863-8374

The Physical Education building serves as the home for many Physical Education classes, the Exercise Physiology Department, Intercollegiate Women's Volleyball, Men's Wrestling and the Intramural/Extramural Program.

Facilities included are men's/women's locker rooms, one main basketball floor, and a multipurpose area and track, one aerobic/dance area, a martial arts room, a motor learn lab, and various faculty/staff offices.

Issue uniforms are required of students using the Physical Education Building. Students with current activity cards are encouraged to use the facilities during open hours.

PRINTING SERVICES

Printing
GT 533
Telephone: 801-863-8415

Copy Center
SC 101g
Telephone: 801-863-8355

Printing Services provides copying, offset printing, and graphic design services for UVSC faculty and staff. However, students only have access to copying services. These services can be acquired at either of two copy center locations. The main copying production center is located in the Gunther Trades Building room 516D. A smaller facility is located in the Student Center near the bookstore. Students may request black & white copies, color copies, transparencies, laminating services, coil binding and other related services.

SORENSEN STUDENT CENTER

Office: SC 103
Telephone: 801-863-8612

Located in the heart of the Orem campus, the Wilson W. Sorensen Student Center represents the center for campus life. The Center provides students, faculty, staff, and guests a setting for informal associations, special events, banquet and workshop facilities, social and cultural activities, and the everyday amenities such as food, books, and supplies. Services and activities provided by the Student Center include the following: Office of Student Affairs (SC 109); Student Center Administration and Scheduling (801-863-8612), (SC 103); UVSC Dining and Catering Services (SC 201); Centre Courte (food court); Valley View Room (cafeteria and dining services); Scoops Ice Cream Shop (SC 103F); Centre Stage (dining, banquet, and multi-purpose services); Wolverine Pride Campus Bookstore (SC 102) and Wolverine Spirit Shop (SC 101F), (bookstore services); Judicial Affairs and Dispute Resolution (SC 107); Student Leadership and Activities (ASUVSC services - student government, campus clubs, and extramural sports), (SC105); NetX News services (SC220); Center for Service Learning (SC101); Outdoor Education (rentals and sales), (SC 103H); Campus Intramurals (SC 108H); Student Health Services (medical and mental health services), (SC 221); Wellness Education (SC 222); Campus Connection (student and department I.D.'s, proximity cards, debit card services, information services, ticket box office services, and campus lost and found services (SC 106); U.S. Postal Services (SC104); Ragan Theatre (400 seating for multipurpose events and programming), (SC 216); Copy Center services (SC 101G); Utah Community Credit Union Services (101E); Off-Campus Housing Services (SC 108G); and Conference Room facilities (the Grande Ballroom, the Commons, SC 206, SC 213, SC 214 and Centre Stage).

STUDENT GOVERNMENT

(Associated Students of UVSC)

Office: SC 105
Telephone: 801-863-8652
Activities Hotline: 801-863-LIFE

Student government offers a range of elected and appointed offices through which students can influence and enhance the social and academic climate of the College. All students are encouraged to support and participate in the student association. Elections and appointments to fill positions in student government are held each spring. All students are members of the Associated Students of Utah Valley State College (ASUVSC).

Information on student government can be obtained from the Student Government Office (SC 105).

STUDENT HEALTH SERVICES

Office: SC 221
Telephone: 801-863-8876

The Student Health Center is designed to assist students, faculty, and staff with a variety of health related issues. Our purpose is to provide patrons with opportunities to improve their well-being through basic medical care and psychological services (counseling). We promote healthy lifestyles, through educational programs that teach effective life skills and behaviors.

Counseling and Psychological Services

Personal Counseling, Emotional Support and Referral

Wellness is promoted through short term counseling to assist students through stressful and crisis situations affecting their performance in school as well as personal relationships. Self-help and educational materials are available in areas of assertiveness training, ADHD assessment, stress management, alcohol and drug abuse, motivation, and self esteem. Counseling is available for pre-marital issues, conflict management, eating disorders, abuse, depression/anxiety, LD testing. Persons aware of problems with friends, roommates, or family members enrolled at or employed by UVSC are encouraged to act responsibly by consulting with one of UVSC's counselors as soon as possible. The College supports the premise that students and employees will help one another to cooperatively solve problems as they occur.

The counselors are experienced professionals who offer support in an atmosphere of understanding and confidentiality. Programs offer both individual assessment and referral to campus and community resources. Psychiatric help is available for medications with referral from a counselor.

Insurance

The student insurance fee (nonrefundable after classes begin) provides secondary insurance coverage for accidental bodily injury to all students while attending classes or participating in school-sponsored activities. Additional optional student and family health and accident insurance is available by contacting the Student Health Center.

Medical Services

Medical Services of UVSC is located in SC 221. A fee of $8.00 is charged for each visit. Insurance coverage is not needed to receive medical services. An additional nominal fee is charged for lab work. We are staffed by medical doctors, nurse practitioners and medical assistants.

Students enrolled at UVSC or any of its satellite campus locations are eligible for medical care on campus. We treat a variety of acute and chronic illnesses and injuries. We are able to write prescriptions, do lab work, physical exams, suture and treat many other medical conditions.

STUDENT MEDIA AND PUBLICATIONS

Office: SC 214
Telephone: 801-863-8617

Student Media and Publications is UVSC's home of The College Times and UVX News. This is the place students interested in producing news; including writing, photography, graphic design, advertising sales, video broadcast content, and web page content and design should come for practical experience and learning. These nationally award winning student media are produced year around. If you're interested in producing news media, this is the place. Students are encouraged to enroll in communications and production classes. We are located on the second floor of the Student Center, next to the theater.

TESTING SERVICES

Office: BA 004
Telephone: 801-863-8269

Testing Services assists both students and staff. It is divided into three branches: Student & Community Testing, the Classroom Testing Center, and the Proctored Exam Center.

Student & Community Testing

The primary responsibility of Student Testing is to assist all new students in developing a first year educational plan. In addition to orientation and advisement, all students must meet the College's assessment requirements. This information is used to place students into

appropriate Math and English courses, which will in turn, help to ensure student success. Testing sessions for new students are conducted throughout the day, no appointment necessary.

New students must meet one of following assessment requirements:

1. *ACT Scores*
   English: Not older than 3 years AND students with scores below 19 will be required to take the COMPASS English test and Reading test.

   Math: Not older than 2 years AND students with scores below 19 will be required to take the COMPASS Math test.

2. *COMPASS Test*
   Offered at no cost, the first time, to UVSC students in the Testing Services department. There are 3 sections: COMPASS Reading, Writing, and Math sections. For more details and information, call the Testing Services department or visit our web pages: http://www.uvsc.edu/testingservices/

3. *SAT*
   Not older than 3 years. Scores of 500 in English and/or Math are required Math scores are good for 2 years.

4. *Transfer Credit*
   Completed English Composition and Algebra at another college/university, with a C- or higher (verified by official college transcripts mailed directly from your previous institution to UVSC Admissions)

Another function of Testing Services is to administer screening instruments, standardized tests, and other assessment instruments required by College programs and departments. Some of these include the Ability to Benefit, LSAT, GED, CLEP, SAT, ACT, EMT and POST tests. Pre-enrollment English proficiency assessment for foreign students is also a service provided in Testing Services. The department is an established site for residual ACT testing. Certification testing for different programs offered by UVSC and the surrounding community is also available. Technical assistance is also provided in the interpretation and use of tests. Students can obtain information on tests in the office and hours of operation by calling 801-863-8269 or by visiting the web page at: http://www.uvsc.edu/testingservices/.

Classroom Testing Center

The Classroom Testing Center (CTC) is located in the basement of the Administration Building (BA 002). The CTC provides testing services enabling students to take participating instructors' exams in the center on a flexible schedule. The CTC is generally open six days a week Monday - Saturday. Students can obtain information on tests in the center and hours of operation by calling 863-8140 or by visiting the Testing Services home page on the web at http://www.uvsc.edu/testingservices/.

Proctored Exam Center

Testing Services provides testing accommodations to students with disabilities. Students requiring assistance MUST obtain a letter from the Accessibilities Services Department and then schedule an individual appointment for testing. Call 801-863-8544.

TRIO STUDENT SUPPORT SERVICES

Office: WB 145a
Telephone: 801-863-8541

TRIO Student Support Services (SSS) is a federally funded program. The purpose of TRIO SSS is to:

a. Increase the retention and graduation rates of eligible students

b. Increase the transfer rate of eligible students from two-year to four-year institutions

c. Foster an institutional climate supportive of the success of low-income and first generation college students and individuals with disabilities through a variety of services such as:

- needs assessment testing
- individual education planning
- academic, career, and transfer counseling
- tutoring
- cultural events
- study skills and personal development classes
- workshops and guest presentations

To be eligible to receive TRIO SSS services, a student must meet all of the following requirements:

a. Is a citizen or national of the U.S. or meets the residency requirement for Federal student financial assistance

b. Is enrolled at UVSC or accepted for enrollment in the next academic semester

c. Has a need for academic support, as determined by UVSC, in order to pursue successfully a post-secondary educational program

d. Is:

- A low-income individual or
- A first generation college student or
- An individual with disabilities

Eligible students are selected into UVSC's TRIO SSS program based upon their academic need and upon their ability to benefit from the services offered. Space is limited, so students are advised to apply early.

UV LEADERS CENTER FOR STUDENT EXCELLENCE

Director: Julie Baker Bagley
Office: SC 119
Telephone: 801-863-6741
http://www.uvsc.edu/uvleader

The mission of the Center for Student Excellence is to prepare students to help them become self-motivated independent learners ready to accept the challenges of the 21st century. Focusing on the college years experience the Center offers students an inclusive opportunity to connect academically with UV Leader Peer Mentors. This program is designed to provide a unique educatinal mentoring environment where students are encouraged to express, sharpen, and convey their emotional intelligence, ciritcal thinking , and leadership abilities.

Established in 1999, the UV Leader Center for Student Excellence was designed in an effort to increase student retention after research revealed that students relate better with other students. The Center utilizes experienced students, UV Leaders, to help incoming students and students at risk. The mission of a UV Leader is to mentor and provide their peers with the following skills and abilities:

- Critical thinking skills
- Self awareness
- Study skills
- Service
- A connection to UVSC campus

When applied, these skills and abilities empower students to be more successful in their academic endeavors and future careers.

The UV Leader's primary responsibility is to assist in Student Success courses around campus. Student Success (CLSS 1000) provides students with a learning system for attaining maximum success in college, in work , and in life. The course presents effective techniques for dealing with time management, reading, writing, and critical speaking. Students enrolled in student success develop an awareness of campus resources and are assisted in exploring and establishing personal, academic, and career goals. In student success you have an opportunity to achieve new heights including:

- Participating in campus activities
- Helping other students
- Developing leadership attributes
- Polishing presentation skills
- Earning great grades

- Learning study techniques
- Improving communication abilities

Students Success offers students the tools and techniques to explore, dream, and discover their potential.

UVSC INSTANT INFO/ COMMUNICATION CENTER

Desks and Computer Kiosks Located at:
Administration Building AD100
Business Building Level 1
Gunther Trades Level 6 Entry
Computer Science Building Level 4
Science Building Level 1
Liberal Arts Building Level 1 entry

Computer Kiosks Located at:
Business Building Level 4
Automotive Trades Level 3
Student Center/Learning Center Level 1
Telephone: 801-863-INFO (4636), 801-863-7439

E-mail: instinfo@uvsc.edu, information@uvsc.edu, instantinfo@uvsc.edu - Answer within 24 hours

Instant Info provides comprehensive assistance to new, continuing, and transferring students as well as parents, staff, faculty, and the general public regarding all aspects of student services. Trained peer advisors field all walk-in or inquiries made by telephone and assist patrons in resolving issues. Should a referral be required, patrons are directed to an individual/department or contact information is provided. Instant Info personnel are trained to assist patrons with the following:

- Electronic admissions applications - immediate response
- WEB START
- Registration - OnAccess
- Personalized textbook lists - BookMatch
- Degree and program requirements
- Degree audits - academic record of completed, in progress, and remaining classes
- On-line credit card payments
- Electronic financial aid applications-FAFSA (award amount possible in 72 hours)
- Electronic loan counseling
- Accessing instructors and on-line assignments -WebCT
- Class schedules and catalogs
- Campus activities and events

Parking services assistance

- Locations and directions
- PIN numbers/change of address

Communication Center

- Answer all incoming Student Service calls

VETERAN'S SERVICE OFFICE

Office: BA 114
Telephone: 801-863-8212

Veterans eligible for VA Educatin Benefits may obtain assistance at the Veterans' Services Office located in the Graduation and Transfer Services Department.

Guideline for Enrollment and Progress

According to VA standards of progress, educational benefits will be paid for courses required for graduation in the student's declared educational objective. Eligible persons will be required to maintain a 2.0 cumulative GPA or higher and to actively and consistently pursue their declared educational objective. To receive Veterans Educational Benefits, students are required to attend class. Benefits will be terminated for non-attendance. This may cause an over-payment to the student.

Veterans and dependents receiving grades of "UW" (unofficial withdrawal) or "W" (withdrawal) will have to reimburse the VA for any difference in pay retroactive to the beginning of the semester unless they can report mitigating circumstances to the Department of Veterans Affairs. Benefits will not be paid for a course that is audited (AU). Students receiving Veterans Educational Benefits, must complete "T" grades within 1 year, or they will owe the money paid to them for that course back to the VA.

New Veterans

New students applying for VA educational benefits may be requested to submit to the UVSC Veterans' Service Officer either original or certified copies of the following documents: (1) DD Form 214 (students may be eligible for a minimum of four semester hours of transfer credit), (2) DD-2384 (Notice of Basic Eligibility), and (3) VA claim (c) number, if applicable. This information is needed as soon as possible to ensure timely and accurate processing of benefits.

Official transcripts from all previously attended colleges or universities are required. The VA will not pay for any course the student has previously taken and successfully completed.

One month's advance pay may be requested by contacting the UVSC Veterans' Services Office at least six weeks prior to the first day of classes. In addition, the student requesting the Advance Payment may not have been already receiving VA Educational Benefits within 30 days prior to the start of the semester. This payment does not automatically pay a student's tuition. (Contact Veterans' Services Office for further information).

Continuing and Returning Veterans

All continuing and returning veterans must come to UVSC Veterans' Service Office promptly after registering for the semester. A Veterans' Class Schedule Form must be completed for each semester attended. This form with the student's signature, indicates that the student wants to receive educational benefits for that semester.

WELLNESS EDUCATION PROGRAMS

Office: SC 221
Telephone: 801-863-8127

The Wellness Education Office provides students and employees useful and informative prevention/education programs throughout the year. Its purpose is to create awareness, influence attitudes, and ultimately impact behavior among students regarding substance abuse and wellness- related issues. This is done through programs which include: prevention campaigns, classroom presentations, educational workshops, student support groups, and referrals to community agencies.

In compliance with the Drug-Free Schools and Communities Act, UVSC has established an alcohol and drug education program to provide information to students regarding:

1) policies and sanctions of the College related to alcohol and drugs on campus

2) potential health risks associated with the use of drugs and the abuse of alcohol

3) State and Federal sanctions that can be imposed for misconduct in this area

4) community resources available for alcohol and drug treatment, counseling, or rehabilitation.

This information can be found in class schedules and on the UVSC web site: http://www.uvsc.edu/info/policy/admin/a-7_2.

WRITING CENTER

Academic Tutoring: LA 201
Telephone: 801-863-8310
http://www.uvsc.edu/owl

See *Academic Tutoring* in this section.

OTHER IMPORTANT STUDENT INFORMATION

ALCOHOL, TOBACCO AND DRUGS

Utah Valley State College, 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 UVSC, or at any activity sponsored by the College. (UVSC Policy A-7.2)

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

Smoking is prohibited in all college buildings and concourses. (UVSC Policy A-7.1)

All students can access a copy of the College Drug Policy in class schedules each semester. It is also available through the UVSC web site, http://www.uvsc.edu/info/policy/admin/a-7_2. It is explained therein what the policy is and legal sanctions that may follow as a result of inappropriate drug and or alcohol use and the known health risks associated with inappropriate use.

CONFIDENTIALITY OF RECORDS POLICY

Utah Valley State College 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 College 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 College 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 College to be private records of College 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 disciplinary 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 with written permission of the student. Similarly, data will be furnished to university accrediting bodies and governmental officials with written permission of the student.

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 College that they are providing one-half or more of the student's support. Court orders and subpoenas for records will be referred to the Registrar/Director of Admissions and acted upon according to his directions. The institution 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:

1. Name of student
2. Address and telephone number of student
3. Hometown city and state of student
4. Verification of current enrollment
5. Dates of enrollment
6. Degrees conferred, dates, major field of concentration and honors received
7. Birth date

Students may request, at any time, through the Admissions and Records Office of the College, that Directory information be withheld by submitting a Request to Prevent Disclosure of Directory Information form.

DISCRIMINATION

Discrimination shall not be tolerated against any student or applicant for admission because of race, color, religion, age, sex, national origin, pregnancy-related condition, disability, status as a disabled veteran or veteran of the Vietnam era. Such discrimination or harassment will not be tolerated in any program or instructional area of the College.

Policy

Students who believe that they have been discriminated against or harassed should contact the Director of Judicial Affairs, SC 107.

Note: Employees or students bringing a grievance against an employee who believe that they have been discriminated against or harassed should contact the Director of Human Resources Services/College Equity Officer.

Students should also consult the Student's Rights and Responsibilities Handbook, which is printed in this catalog. See Student Rights and Responsibilities Section.

Procedure

1. Purpose

The primary purpose of this procedure is to provide a remedy through which to seek redress for alleged acts of discrimination or harassment on the basis of race, color, religion, age, sex, national origin, pregnancy-related condition, disability, or veteran status. This grievance procedure is not applicable for situations for which other appeal and adjudication procedures are provided in State law or in which the College is without authority to act.

2. Stages of Redress

a. Students grieving against another student or an employee who is grieving against a student must present the grievance in written form to the Office of Student Affairs within 14 days (two calendar weeks) of the violation.

b. If not satisfied with the response the grievant may appeal within 14 days (two calendar weeks) of receipt of the response to the Dean of Students.

3. Hearing and Decisions

At each of the levels noted above, the grievant shall be given the opportunity to be present and to be heard. Due process shall be accorded to all parties involved in the grievance, such as written notice of hearing dates and charge, right to counsel, right to present witnesses, and to present written statements. However, formal rules of evidence and trial procedure required in a court of law will not be applicable to such hearings. Decisions by the Campus Appeals Board shall be by a majority of the members present at the meeting. If an appeal is sent to the President, it must be accompanied by all documentation related to the prior hearings. The President's decision is final.

4. Withdrawal

A grievance may be withdrawn by the grievant at any level without prejudice or record.

5. Reprisal

No reprisal of any kind shall be taken by or against any party or legitimate participant in the grievance procedure by reason of such participation.

6. Confidentiality

Appropriate confidentiality will be observed in all grievance procedures.

7. Informal Resolution of Grievance

Nothing contained herein shall be construed so as to limit in any way the ability of the grievant and the College to resolve any grievance, mutually and informally.

PEACEFUL ASSEMBLY

Policy

Free expression and peaceful assembly are rights guaranteed by the Constitution, subject to time, place and manner regulations. The College acknowledges this right for its students to assemble and express their views peacefully. However, to protect the health and safety of both participants and bystanders, peaceful assembly procedures follow.

Preparation Strategies

1. Plan your peaceful assemblies through the Office of Judicial Affairs
2. Reserve an appropriate location from the list below
3. Schedule appropriate amplification, if necessary
4. Contact College Police for traffic and crowd control, if necessary
5. Post fliers and/or cardboard signs according to the College Poster Policy
6. Pay rental charges, if required
7. Commit to obey local, state and federal laws and College policies
8. Agree not to disrupt the educational process of the College

Prohibitions

1. Interference with the rights of others. Examples are harassment, intimidation and discrimination
2. Disruption of normal functions of the College
3. Damage to College property
4. Endangerment of the health or safety of self or others
5. Use of classrooms during academic hours
6. Refusal to vacate the premises upon official request by a College administrator or Law Enforcement personnel
7. Use of objects that might injure participants or bystanders; examples are wires, ropes, sticks and chains

Penalties

Prohibited acts are grounds for suspension or dismissal. Utah law provides that a student may be barred from campus for up to 14 days following an incident where the student violates College policy or state law. Refusal to vacate premises upon official request warrants immediate temporary suspension and arrest under the law.

Locations Appropriate For Peaceful Assembly

Locations are subject to availability; some locations may not be available at all times due to previously scheduled engagements.

Large assemblies (more than 50 people): Sorensen Student Center: Courtyard Lawn, North Parking Lot, Ballroom, Theater, or meeting rooms; Athletic fields/Lawn areas; McKay Events Center: Arena, or Presidential Level.

Small assemblies (fewer than 50 people): Student Lounges or Student Center Meeting Rooms.

Resources

Reservations:

1. Sorensen Student Center Scheduling Office, SC 103, 801-863-8612
2. McKay Events Center Scheduling, MC Concourse, 801-863-8767
3. All other Campus Scheduling, Planning Center, 801-863-8883

Amplification for the Sorensen Student Center and outdoor areas can occur between 11:00 a.m. and 1:00 p.m., Monday through Friday. Saturday hours are flexible. Adequate and effective amplification will be provided within limits necessary to protect the neighboring community. Amplification for small peaceful assembly sites is rarely needed. Contact: College Media Services, LC 300, 801-863-8888 or Sorensen Student Center, SC 103, 801-863-8612.

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.

Campus Police

CRIME AWARENESS AND CAMPUS POLICE

The safety and well-being of our students, faculty, and staff are a high priority at Utah Valley State College.

Although the UVSC campus is a relatively safe place, we are not immune to those problems that beset all urban citizens, including problems related to public safety and law enforcement.

The Utah Valley State College Police Department (UVSCPD), a police force fully accredited by the State of Utah, is charged with protecting your safety and property on our campuses. The following outlines the services, policies, and programs which help us to meet that challenge.

The full support and cooperation of the entire College community is required to allow for the pursuit of knowledge in a safe and secure environment.

Utah Valley State College provides several important services to a diverse College community consisting of approximately 25,500 students and supporting faculty and staff by providing 24-hour-a-day police patrol and security protection for the benefit of all College properties, employees, students and visitors on campus.

Utah Valley State College police officers have the same full police powers and responsibilities as do officers in other Utah law enforcement agencies.

All UVSCPD police officers are trained at the Utah State Police Academy and each year receive a minimum of forty (40) hours of in-service and specialized training in crime prevention and awareness, first aid, firearms, defensive tactics, legal updates, evidence gathering, traffic control and traffic accident investigation, follow-up on criminal and civil investigations, etc.

Several patrol methods are used to secure and patrol College properties, including uniformed and plain clothes, vehicle, foot, and bike patrol.

College police officers are also responsible for providing a full range of public safety services to the College community, including the handling of all crime reports, investigations, traffic accidents, enforcement of laws regulating underage drinking, the use of controlled substances, weapons violations, and enforcement of all applicable State, County and local laws, and all other incidents such as medical and fire emergencies which require police assistance.

College police officers prepare and submit reports of incidents brought to their attention. As a courtesy, they share information on arrests and serious crimes with any law enforcement agency having a legitimate need to know.

The serial numbers of all vehicles, office equipment, and personal property stolen from our College campuses are reported nationwide through the National Crime Information Center (NCIC).

UVSCPD encourages the prompt and accurate reporting of crimes to our office by victims, witnesses or any other persons having knowledge that a crime has been committed on our campus.

The UVSC Dispatch office is staffed 24 hours a day, 7 days a week, 365 days a year and can be reached by calling 801-863-5555.

The College Police office is located at 1034 West 800 South.

There are emergency telephones located in each Orem campus elevator and in the parking lots. When activated these phones will automatically put you in direct contact with a College police dispatcher.

CRIME AWARENESS/CRIME PREVENTION

An important function of UVSCPD is making our campus users aware of how to prevent becoming a victim of crime.

If requested, one of our College police officers will talk to groups regarding Crime Awareness/Crime Prevention.

CAMPUS SAFETY AWARENESS PROGRAMS

The Chief of Police/Director of Public Safety, the College Fire Marshall and other staff members are involved in a College Safety Committee which makes periodic security and safety surveys of campus facilities.

Officer Friendly Program

Several times throughout the school year our College police officers will make an Officer Friendly presentation to the College Child Care Center emphasizing "police are our friends". Child safety is stressed.

Traffic School

Utah Valley State College police offer traffic school for persons cited for moving violations. Attendance will give licensed drivers an opportunity to improve their knowledge and keep a clean driving record. Upon completion of the class the citation will be dismissed and will not appear on your driving record with the Utah Driver's License Division. Traffic school is allowed for one citation per calendar year.

GROUNDS AND BUILDING SAFETY

The College Facilities and Planning/Plant Operations Departments maintain college buildings and grounds with a concern for safety and security. These facilities are inspected regularly; plant staff attempt to make prompt repairs and respond 24 hours-a-day to reports of potential safety and security hazards, such as broken windows and locks. The College Police Department assists maintenance personnel by reporting potential safety and security hazards. Students, as well as employees, are encouraged to call Facilities Planning and Maintenance (801-863-8130) to report any hazard.

Representatives from College Police/Department of Public Safety and Facilities Planning routinely inspect the entire campus to review lighting and environmental safety concerns.

CRIME STATISTICS FOR THE COLLEGE COMMUNITY

The College Police Department submits a monthly Uniform Crime Report to the Federal Bureau of Investigation (FBI) through the Utah Bureau of Criminal Identification. UCR data is available online through BCI at http://bci.utah.gov/Stats/StatsHome.html

UVSC also submits crime data to the Department of Education. The following statistics show the aggregate number of occurrences and arrests for on campus, non-campus, and public property. For a more detailed breakdown, see http://www.uvsc.edu/police/statistics.html

Number of Occurrences for Selected Crimes

Criminal Offense	2000	2001	2002	2003
Murder/Non-negligent Manslaughter	0	0	0	0
Forcible sex offences	0	0	1	0
Non-forcible sex offences	0	0	0	0
Robbery	0	0	0	0
Aggravated Assault	0	0	0	1
Burglary	5	5	2	6
Motor Vehicle Theft	1	1	0	1
Arson	0	0	0	0
Negligent manslaughter	0	0	0	0
Total	6	6	3	8

Number of Arrests for Liquor/Drug and Weapons Offenses

Arrests	2000	2001	2002	2003
Liquor Law Violations	23	16	27	40
Drug Law Violations	12	5	23	26
Illegal Weapons Possessions	0	0	2	1
Total	35	21	52	67

No hate crimes were reported during this period.

A glossary of offenses is available at http://ope.ed.gov/security/Search.asp

Updated campus crime data is posted by October 1 of each year on the UVSC Police statistics page http://www.uvsc.edu/police/statistics.html

ON CAMPUS HOUSING

At the present time, UVSC does not have any on campus housing.

OFF-CAMPUS STUDENT RESIDENCES

There are numerous privately owned rental units off-campus in which students reside. The College encourages students to locate and investigate off-campus living units whose owners have agreed to exercise reasonable efforts to maintain rental facilities in good repair including properly functioning locks on doors and windows. Some of the large apartment complexes provide their own night security watch.

THE COLLEGE CANNOT AND DOES NOT GUARANTEE OR REPRESENT THAT OWNERS AND MANAGERS ALWAYS MEET OUR SUGGESTED PHYSICAL CRITERIA. Thus, students are individually responsible to carefully choose a safe and secure off-campus apartment.

Crime prevention and crime awareness programs emphasizing security and what students and employees can do to help themselves from becoming a victim are provided, free, upon request by contacting local police agencies or the College Police Department, telephone 801-863-5555.

The College Police Department is responsible for policing the Utah Valley State College campuses. The respective city police departments are responsible to police the surrounding areas where our students may choose to live.

The College Police Department has a mutual working relationship with all Local, County, Federal and any other State law enforcement agencies in Utah County (Utah Valley region), providing each department as requested or as becomes necessary with patrol assistance, information exchange, and back up.

SKATEBOARDS, ROLLER BLADES, ROLLER SKATES, BICYCLES, AND MOTORCYCLES

Skateboards, roller blades, roller skates, and bicycles are allowed on campus for transportation only. NO stunts or tricks are allowed. Motorcycles and like devices shall not be operated on sidewalks or paths under any circumstances.

Sanctions

Violations of this policy may be enforced against students, employees and visitors of Utah Valley State College by notices or citations which may be processed and settled through the police office.

OTHER FACILITIES UTILIZED BY UVSC

UVSC has satellite offices located in several

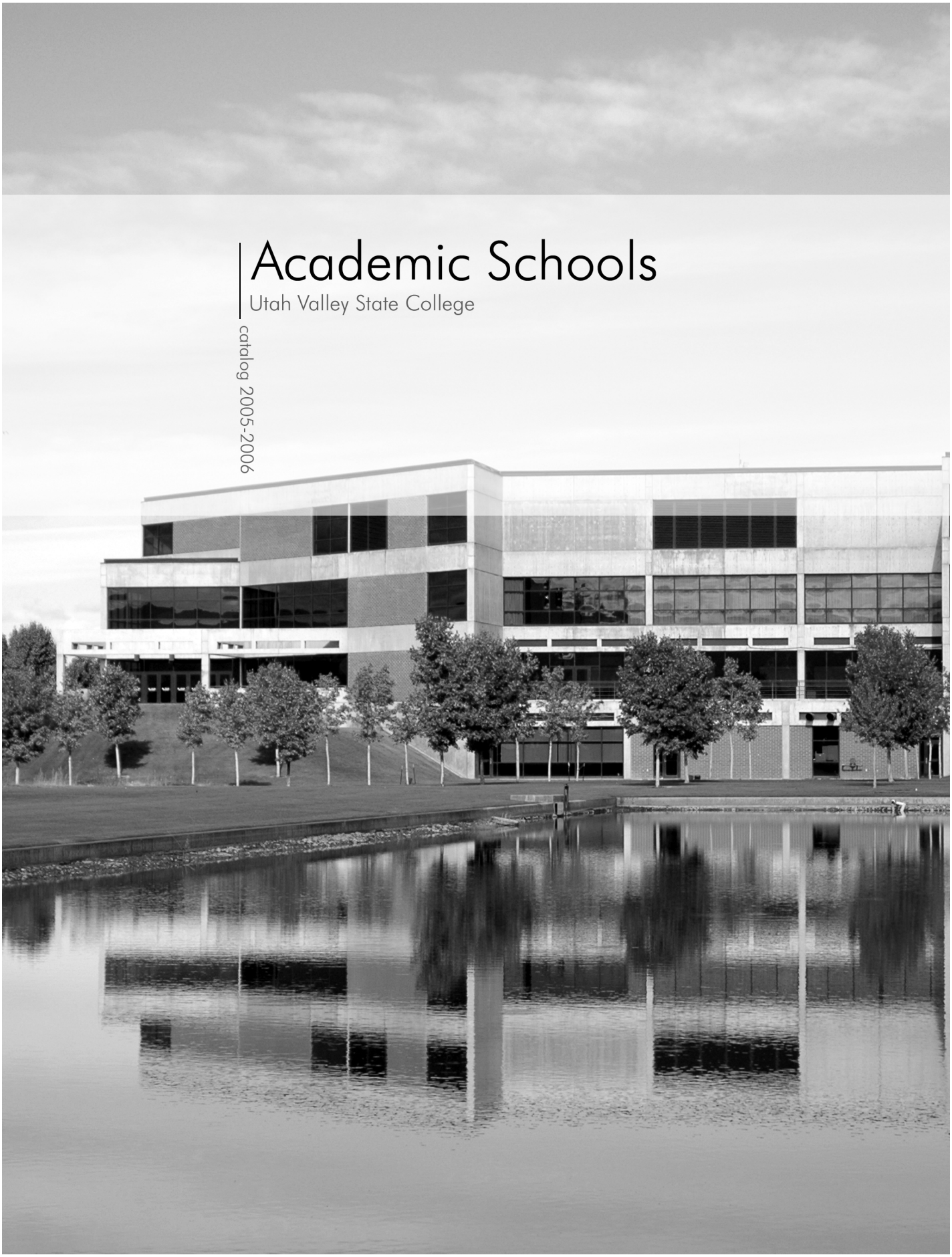
communities throughout Utah such as: American Fork, and Heber City. College Police provide law enforcement and crime prevention services for these areas as needed. Routine patrol coverage is by the appropriate local law enforcement agencies.

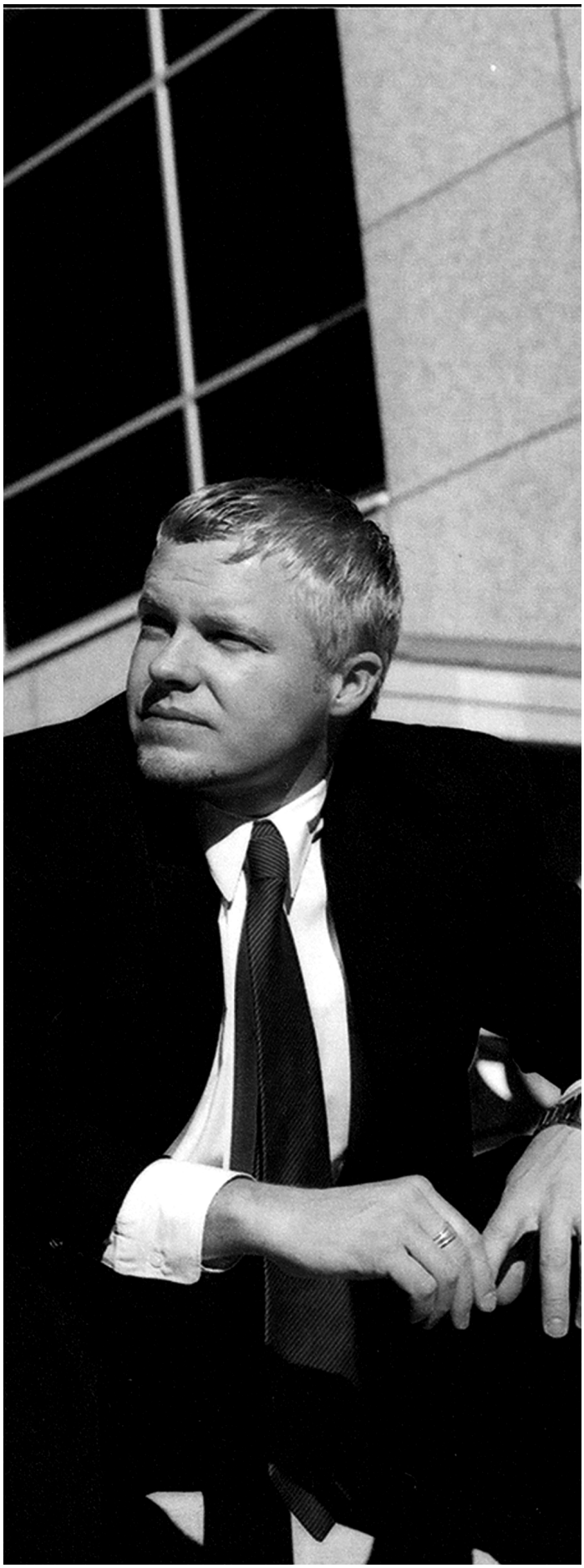
Please feel free to direct any comments and or questions that you may feel have not been answered in this document to the office of the Director of Public Safety.

Academic Schools

Utah Valley State College

catalog 2005-2006





School of Business

The School of Business aspires to be the premier undergraduate business school in the intermountain states recognized for its up-to-date curriculum, quality faculty, and graduates who continue to learn and achieve in the world of business.

DEAN: JAMES W. FENTON, JR.

Office: WB 128b
Telephone: 801-863-8239
E-mail: fentonja@uvsc.edu
Fax: 801-863-7314

Associate Dean: Janice Gygi

Office: WB 219
Telephone: 801-863-8863
E-mail: gygija@uvsc.edu
Fax: 801-863-7314

Assistant Dean: Mikki O'Connor

Office: WB 129
Telephone: 801-863-8850
E-mail: oconnomi@uvsc.edu
Fax: 801-863-7314

Assistant Dean External Relations: David A. Brewer

Office: WB 128c
Telephone: 801-863-8458
E-mail: brewda@uvsc.edu
Fax: 801-863-7314

Advisory Council

Edward F. Allebest, Law Office of Allebest and Associates; Jeri Allphin, UVSC Alumni Director; Craig Bryson, Founder and Vice President, Nu Skin Enterprises; Blake Christensen, UVSC Alumni President; Michael Colemere, Consultant; James Croft, Mortgage Asset Research Institute; Steve Edgren, Vice President (retired), Goldman Sachs; Reed Halladay, Managing Director, Bel Air Investments; Dan Howells, CEO Nature's Sunshine Products, Inc.(retired); Amy Lewis, President IPOPLLC.com; Kenneth Macey, President/CEO Macey's Food Stores (retired); Duane L. Madsen, Vice President Wealth Management, Goldman Sachs, Investment Advisory Services; Mary Morris, Co-Owner Morris Motors (retired); Dan Reeve, Council Chair, Managing Director, Horsley Bridge; Thomas E. Sawyer, Chairman, NeTrue Communications; Bill Siddoway, Consultant, UVSC Institutional Advancement; Kevin L. Simister, Partner, Hawkins, Cloward & Simister; Jerold Simons, Chairman, Pacific Seatec Corp; Greg Warnock, Managing Director, vSpring Capital; John Whetten, President & CEO Challenge Dairy; W. Richards Woodbury, Council Past Chair, President, Woodbury Corporation; John H. (Jack) Zenger, Zenger Folkman Co.

Small Business Development Center

Director: Shauna Theobald
Office: EB 100
Address: 500 West 1200 South, Orem, UT 84058
Telephone: 801-863-8230
Fax: 801-863-7071
Web Site: utahsbdc.com

The Center for the Advancement of Leadership

Director: Bruce Jackson
Office: WB 203b
Telephone: 801-863-7431
E-mail: jacksobr@uvsc.edu
Fax: 801-863-7314

Leadership Certification Program

The Center for the Advancement of Leadership (CAL) has designed an extra-curricular Leadership Certification Program for any and all students on the UVSC Campus. Whether you are majoring in business, engineering, fire science, biology, aviation, or any other degree or program, this Leadership Certification Program is designed for students who wish to advance their personal, interpersonal, and leadership skills while pursuing their degrees and programs-making them more productive and marketable to their future employer.

All students are invited to preview the program by visiting our website at www.uvsc.edu/leadership, or requesting a DVD from the Director, Dr. Bruce H. Jackson (x 7431).

Leadership Certification Structure

There are three certification options that are available through the CAL. Each certification denotes a different level of rigor. Students can choose between: Leadership Certification (approximately 1 year to complete); Leadership Certification with Distinction (approximately 1 ½ - 2 years to complete) and Leadership Certification with High Distinction (approximately 2-2 ½ years to complete). Each leadership certification program has been customized for every academic degree on campus. The basic steps of each leadership certification program as are follows:

1. Application and interview
2. Peer and self leadership assessment (360° Feedback)
3. Begin personal journal of reflection on leadership development
4. Participate in a group mentoring program
5. Begin your academic core courses (3, 4, or 5 courses based on certificate level goal)
6. Choose among a variety of leadership development workshops/seminars (15, 30, or 45 hours based on certificate level goal)
7. Participate in leadership experience projects (30, 45, or 60 hours based on certificate level goal)
8. Interview leaders in your chosen field (1, 3, or 5 interviews based on certificate level goal)
9. Portfolio review and certification
10. Use the CAL to write a letter of recommendation and generally promote you to your employer.

Board Members:

Richard J. Allen, Pillar Enterprises LLC; Clay Anderson, UVSC PE Dept.; Travis Anderson, Management Consultant; Christopher Barden, Clinical Psychologist & Trial Attorney; Wesley M. Bitters, Center Past Director; David Brewer, UVSC Asst. Dean External Relations; Chris Brown, UVSC Athletics; Bruce Bushnell, Pleasant Grove High School Counselor; Jack Christianson, LDS Institute Director; Dan Clark, Author and Motivational Speaker; Phil Clegg, UVSC Student Life; Ryan Coombs, Assistant to the Director; Chuck Cozzens, UVSC Professor; Elane Cuell, UVSC Administrative Assistant; Rondo Fehlberg, Board Chair; James Fenton, Dean, UVSC School of Business; David Freeman, Glenwood Intermountain Properties; Shad Glover, Marketing Executive; Steven Hall, Fundraising Consultant; Bruce Jackson, Center Director; Ralph Jamsa, Spanish Fork High School Counselor; Glen Jensen, Entrepreneur/Business Owner; Jordan Jensen, Assistant to the Director; Luella Jones, UVSC, Seminars & Conferences Coordinator; William Jones, Intermountain Healthcare CEO (retired); Bob Ligget, Management Consultant and Trainer; Kyle Love, Board Past Chair; Tom Macdonald, Pres/CEO Canyon Park Management Co.; Brad Mertz, UVSC Institutional Advancement; Kevin Miller, Leadership Consultant; Andrew Monks, Research Assistant; Christian Moore, Why Try Program; Mike Morrey, UVSC Institutional Advancement; Martin O'Loughlin, Retired Top Gun Pilot and Business Consultant; Bob Rasmussen, UVSC Student Life; Ashley Robinson, Fundraising Consultant; Tim Rush, Snapp Norris Group; Jeff Sermon, President/CEO Utah Community Credit Union; Ken Shelton, CEO Executive Excellence; Jerry Taylor, Snapp Norris Group; Maren Turnidge, Corporate Alliance; Nate Warner, Timpview High School Counselor; Drew Williams, Configuresoft; Brad Winn, Snow College Vice President.

Consultants:

Stephen R. Covey, Franklin Covey Inc.; Bill Siddoway, UVSC Institutional Advancement; Hyrum Smith, Consultant; Meg Wheatley, Berkana Institute, Jack Zenger, Zenger Folkman Co.

Law Enforcement Academy

Director: Steve DeMille
Office: WB 254
Telephone: 801-863-8062
Fax: 801-863-7327
E-mail: Demillst@uvsc.edu

Professorships

Reed and Christine Halladay Executive Lecture Professorship: Doug Miller, Professor of Management
Miles and Mary Morris Professor of Entrepreneurship: Peter Robinson, Professor of Management

School of Business Alumni Board

Blake Christensen, President, Nature's Sunshine Products, Inc.; Polly Clauson, Administrative Assistant, UVSC; Paul Gifford, Systems Support Specialist, Associated Food Stores; Eric Graves, Nature's Sunshine Products, Inc.; Jared Hanson, UVSC; Tami Jensen, UVSC; Robynn Kirkham, UVSC; Baron Rohbock, Past President, Director of Training, Hartman Communications; Toni Sullivan, Co-Owner, A-Plus Home Care; Steve Teeter, Faculty Director, UVSC Professor; Brian Wall, President Elect, Nature's Sunshine Products, Inc.

Human Resource Advisory Board

Todd Anderson, Regional Director of Human Resources, Convergys; Dr. Greg Berry, Associate Professor of Human Resources, Utah Valley State College; David Dyches, Human Resource Consutlant, Employer Solutions Group; Dee Henderson, Vice President of Human Reources, Employer Solutions Group; Pritha Lal, Resource Generalist, Nu Skin International, Inc.; Kirk Livingston, Director of Human Resources, Gold's Gym of Utah; Dr. Susan Madsen, Assistant Professor, HR Track Coordinator, Utah Valley State College; Lori Smith, Director of Human Resource Operations, FranklinCovey; Jeff Weber, Vice President of People, MyFamily.com; David Willden, Larry H. Miller, Corporate.

Mission

The School of Business strives to provide quality undergraduate education to its students to prepare them to become competent Business professionals.

Our focused effort is to prepare students by providing them with state-of-the-art technical skills for use in a global society, refining their ethical perspectives and commitments, and developing and mastering effective interpersonal skills. We foster the philosophy of lifelong learning in our students, alumni, faculty, and community at large.

As a community of business academicians, our emphasis is on excellent teaching that positively impacts each student's educational experience. Faculty members stay current in their fields and complement their teaching focus primarily through enhancement of instructional efforts and applied scholarship. By performing public service, both inside and outside the school, they aspire to improve the social fabric of the region, state, and country.

Accreditation

The School of Business is currently in AACSB (Association to Advance Collegiate Schools of Business) International candidacy status. The programs in the School of Business are reviewed and accredited by Northwest Association of Schools and Colleges.

Advising and Financial Aid

A School of Business Advising Center provides one-on-one advising throughout a student's program. Information regarding financial aid, scholarships, and transfer programs is readily available by contacting departmental advisors in WB 257 of the Woodbury Business Building. Privately funded scholarships, as well as tuition waivers, are awarded by the School of Business.

Advisor: Diana Johnsen
Office: WB 257f
Telephone: 801-863-8832
E-mail: johnsedi@uvsc.edu

Advisor: Terry Acord
Office: WB 257b
Telephone: 801-863-8314
E-mail: acordte@uvsc.edu

Advisor: Mignon Nicol
Office: WB 257d
Telephone: 801-863-8749
E-mail: nicolmi@uvsc.edu

Internships

The School of Business encourages students to enroll in internship courses. Completing between two and eight credits of internship is required of many degrees in the School of Business. An internship combines classroom theory with related, practical job experience. Students select a work environment related to their major while enrolled at the college. Internship experience serves as a resume builder and assists students in launching their careers following graduation. It is recommened that students complete MGMT 3890 Career Preparation before registering for internship credit.

A coordinator works closely with students and employers to ensure that the work experience is a successful career education experience. The School of Business managers of career and corporate development are:

Peggy Adams-Williams
Office: WB 257c, 801-863-8379

John Wilson
Office: WB 257a, 801-863-6307

ADMISSION TO THE SCHOOL OF BUSINESS

Students choosing to pursue majors in the School of Business should decide early, plan their schedules carefully, be aware of all the requirements, and stay informed about any changes by checking often with advisors in the School of Business Advisement Center.

All students seeking a degree within the UVSC School of Business must be formally admitted. Freshmen, sophomores, and transfer students may be admitted to the School throughout the academic year. The deadline dates to submit a completed Admission Form to the School of Business Admission's Office are September 15 for Spring Semester, February 15 for Summer Semester, and June 30 for Fall Semester. Only completed Admission Forms are reviewed for selection consideration. A letter will be sent indicating whether or not a student has been accepted into the School. While awaiting acceptance, a student may register for general education courses, 1000- and 2000-level business courses, and selected 3000- and 4000-level courses.

Each student must submit a completed School of Business Admission Form to the School of Business Admissions Office in WB 257 or by mail to:

School of Business Admissions Office
Utah Valley State College, MS 207
800 West University Parkway
Orem, UT 84508

Accessibility to the School of Business Courses

All 1000- and 2000-level business courses are open to all UVSC students along with selected 3000- and 4000-level courses. Some courses have prerequisites, which must be satisfied. No more than 15 credits of upper-division courses can be taken before a student has been formally matriculated into the UVSC School of Business with advanced standing.

Repeating Failed Foundation Core Courses

Each School of Business major has foundation core courses. A student will be allowed to repeat a failed foundation core course only twice. If the foundation core course is not passed with a minimum grade of "C-" as required in this catalog after the second retake, the student will not be allowed to apply for advanced standing (matriculation) toward a degree in one of the School of Business majors.

Application Requirements for Advanced Standing (Matriculation)

To be considered for admission to advanced standing in a School of Business four-year program, a student must do the following:

- Complete the foundation core courses listed for their major with at least a "C-" grade; Paralegal Studies majors must have a grade of "C+" or higher. A student will be limited in taking upper-division coursework until these foundation courses are completed.
- Achieve a grade point average (GPA) in business courses of at least a 2.5 and an overall GPA of 2.0.
- Make formal application to advanced standing (matriculation) through the School of Business advisor by completing the appropriate form.
- Pay the fee at the cashier's office.

The student will be required to complete the program that is in effect at the time advanced standing (matriculation) is granted. Exceptions will be handled on a case-by-case basis.

Major Specialization of Courses

After admittance to advanced standing, the student will be required to complete the courses required in their *major specialization*. See your School of Business advisor or the appropriate section of the current catalog for requirements for each major specialization.

Maintenance of Advanced Standing

Once admitted to advanced standing in the School of Business, the student must maintain the 2.5 business GPA to remain in the School of Business. A student falling below the minimum GPA will be placed on probation for one semester. If the business GPA remains below 2.5 for a second semester, advanced standing will be revoked. A student who wishes to continue in the School of Business major will be required to retake some classes to bring up the business GPA to at least 2.5 and will be required to apply for reinstatement of advanced standing.

A student will be allowed to repeat a failed major specialization course only twice. If the course is not passed with a minimum of "C-" after the second retake ("C+" for Paralegal Studies majors), the student will be dropped from the School of Business program.

Graduation Requirements

A Bachelor of Science degree in a School of Business major may be earned upon the completion of four years of full-time (16 credits per semester) college work. The bachelor degree consists of 120-126 semester credit hours with a minimum of 40 hours upper-division credits. At least 30 of the credit hours earned in the degree must be in School of Business courses taken at UVSC; 10 of these credit hours must be within the last 45 credit hours earned toward completion of the degree. The student pursuing a bachelor degree must also complete the general education requirements listed for the Associate in Science degree. The student must have a minimum 2.5 GPA in all School of Business courses and a minimum 2.0 GPA for graduation.

The School of Business reserves the right to change, at any time, the requirements for graduation and every candidate not yet accepted into advanced standing for a degree will be required to comply with such changes as far as the uncompleted portion of his/her degree is affected. Any exceptions will have to be approved by the Dean. In addition courses within degrees may change at any time. Students will be required to complete the revised course requirements even if the changes add credit hours to the original degree.

Whether or not a course is accepted toward degree requirements is determined by the date it was taken and the grade received. For details contact your UVSC business advisor or the School of Business Assistant Dean.

Credit Policy

1. Obsolete Credit: UVSC School of Business credit or business transfer credit earned more than ten years earlier than the proposed date of graduation (five years for business computer proficiency) may not be accepted toward requirements for graduation unless validated through taking a challenge examination, completing the next course in a related sequence with a grade of "C" or better, or receiving department chair and assistant dean approval.
2. Waiver/substitution Requests: Any deviations from the printed UVSC School of Business graduation requirements must be approved by the appropriate department chair and the assistant dean prior to waiving, substituting, or taking the course(s) in question.
3. Challenge/Experiential Credit: Credit for any course that appears 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. See your School of Business advisor for details on how to receive experiential/challenge credit for a specific course.

   Students may not challenge a class for which they are or have been enrolled. No more than 16 credit hours of challenge credit may be applied to a bachelor degree in the School of Business.
4. Coop/Internship Credits: Academic credit for cooperative work experience and/or internship may be granted in bachelor degrees. Check with your School of Business advisor for the maximum number of coop/internship credits that can be applied to your specific program. Additional coop/internship credits may be taken (but not applied toward graduation) with the approval of the manager of career and corporate development and the assistant dean.
5. Transfer Credits: Students transferring from other colleges or universities within the Utah System of Higher Education (USHE) should consult their School of Business advisor to determine which credits will be accepted by UVSC. Students wishing to transfer School of Business credits from colleges or universities outside the state not covered by the USHE Transfer Credit Guide may need to submit further documentation which allows the Transfer Office, School of Business advisor, department chair, and/or School of Business assistant dean to assess the content of courses taken. In the majority of cases, courses taken at institutions accredited by the Association to Advance Collegiate Schools of Business (AACSB) International will be accepted. Only courses with a grade of "C-" or higher are eligible for credit. School of Business classes taken more than 10 years ago may not be accepted but will be evaluated individually.

DEGREE OFFERINGS

The School of Business offers courses leading to the following degrees. (Department name follows where degree name varies from department name.)

Bachelor of Science (BS)

Accounting
Business Management with a specialization in:
- Entrepreneurship
- Finance and Banking
- General Business
- Hospitality
- International Business
- Marketing

Criminal Justice with a specialization in:
- Corrections
- Criminal Law
- Law Enforcement

Hospitality Management
Paralegal Studies

Minors

Accounting
Business Management
Criminal Justice
Paralegal Studies

Associate in Science (AS)

Accounting
Business Management
Criminal Justice
Hospitality Management
Paralegal Studies
School of Business—transfer degree

Associate in Applied Science (AAS)

Accounting
Business Management
Hospitality Management

Certificate

Accounting
Business Management

Law Enforcement Academy Certification

Prior to applying for the Utah Valley State College Law Enforcement Academy (UVSC-LEA), the student must pass the National Police Officer Selection Test. Contact the Student Assessment Center in BA 004 or call 863-8269 for an appointment to take the test.

Module 1, SFO Block, is offered twice each year beginning the first week of June and the first week of September. Module 2, PO Block, is offered once per year beginning in January. Contact Steve DeMille at 801-863-8062 or stop by the Legal Studies Department in WB 242.

Master of Business Administration Degree Partnership

The UVSC School of Business and Utah State University College of Business have formed a partnership to offer the Master of Business Administration (MBA) degree on the Orem Campus. Students interested in pursuing this MBA degree should contact Diana Johnsen at 863-8832 for information.

Business Computer Proficiency Exam

Most of the degrees offered in the School of Business require the student to demonstrate business computer proficiency. Students pursuing most bachelor degrees must complete this proficiency requirement before they can be accepted into advanced standing. This proficiency can be completed by passing the hands-on production exam modules with a score of 80 percent or higher on each module or by completing the ISYS 1050 class or the ISYS 105A-F modules as needed and passing the tests given at the end of each module at 80 percent or higher.

The business computer proficiency exam consists of six modules: Windows/computer concepts/ethics, Internet/e-mail, word processing, spreadsheet, presentation, and database software applications. These tests may be taken individually; but all tests must be completed within the same semester.

For more information on or to obtain a review sheet for the business computer proficiency exam, see the business advisors in WB 257. A fee will be charged for taking the exam.

DEGREE REQUIREMENTS

See the individual departmental sections in the catalog that follow this School of Business section for specific requirements on each degree offered by the individual departments.

The Associate in Science School of Business transfer degree is available for students planning to transfer to another college or university in Utah, or it can be completed by students seeking a BS degree at UVSC.

AS IN BUSINESS				61 CREDITS
General Education Requirements:				36 Credits
•	ENGL	1010	Introduction to Writing	3
•	ENGL	2010	Intermediate Writing: Humanities/Social Science	
or	ENGL	2020	Intermediate Writing: Science/Technology	3
•	MATH	1050	College Algebra	4
Complete one of the following:				3
•	HIST	1700	American Civilization	
•	HIST	2700	US History to 1877	
and	HIST	2710	US History since 1877	
•	ECON	1740	US Economic History	
•	POLS	1000	American Heritage	
•	POLS	1100	American National Government	
Complete the following:				
	PHIL	2050	Ethics and Values	3
	HLTH	1100	Personal Health & Wellness	
or	PES	1097	Fitness for Life	2
Distribution Courses				
•	Biology			3
•	Physical Science			3
•	Additional Biology or Physical Science			3
•	Social Science Distribution			3
•	Humanities Distribution			3
•	Fine Arts Distribution			3
Discipline Core Requirements:			25-28 Credits	
•	ACC	2010	Financial Accounting	3
•	ACC	2020	Managerial Accounting	3
•	MATH	1100	Introduction to Calculus	4
•	MGMT	2200	Written Business Communication	3
•	MGMT	2010	Microeconomics	3
•	MGMT	2020	Macroeconomics	3
•	LEGL	3000	Business Law	3
•	MGMT	2340	Business Statistics	3
or	MATH	2040	Principles of Statistics I & II	
Complete one of the following:				
•	Business Computer Proficiency Exam*			
or	ISYS	1050	Basic Computer Applications*	3
Graduation Requirements:				
1	Completion of a minimum of 61 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 required courses.			
3	Residency hours: Minimum of 20 credit hours through course attendance at UVSC.			
4	Completion of GE and specified departmental requirements			

Notes
:
*Students will be required to complete the business computer proficiency exam with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher.
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 UVSC).

DEPARTMENTS

ACCOUNTING

Chair: Steve Johnson
Office: WB 136b
Telephone: 801-863-7186
E-mail: johnsosd@uvsc.edu
The mission of the Accounting Department is to build a strong learning and growth environment for students to prepare for successful careers in industry, government, and public accounting. We maintain a teaching-focused environment where students can master the fundamental and technical competencies required of professional accountants.

Through our partnering with the business community, students will have opportunities of interactive learning in and out of the classroom. The Accounting Department is committed to assessing current accounting trends and developing specialties within the curriculum to prepare students for careers in those growth fields. Upon completion of an Accounting degree, students should have a combination of skills and abilities including but not limited to leadership, teamwork, communication, analytical reasoning, and lifelong learning.

BUSINESS MANAGEMENT

Chair: Douglas G. Miller
Office: WB 203e
Telephone: 801-863-8859
E-mail: millerdo@uvsc.edu

Students graduating from the Business Management Department have many opportunities in private industry, government, and entrepreneurship fields. Bachelor of Science degrees are offered in entrepreneurship, hospitality, international business, marketing, and general business where students can emphasize other areas such as human resource management, communication, etc. An Associate in Science degree and an Associate in Applied Science degree are also available

Faculty in the Business Management Department have real-world expertise that they bring to the classroom. Students serve an internship in business during their program of study where they receive actual work experience during their training. Graduates of the UVSC business management program are well prepared to work in business and industry or to go on to graduate school for additional education.

FINANCE AND ECONOMICS

Chair: Lowell M. Glenn
Office: WB 215
Telephone: 801-863-8385
E-mail: glennlo@uvsc.edu

The business world is more competitive today than in past generations. Decision makers understand they have to get things right the first time using current models and measurement methods to make those decisions. The classes and programs offered in the Department of Finance and Economics give students the background to make those decisions.

Experienced faculty work with students in both the theory and application of the principles of finance, economics, statistics, and operations management. The integration of the skills learned in these disciplines when applied through the strategic management course during the last semester will support students' development as business professionals.

HOSPITALITY MANAGEMENT

Chair: Douglas G. Miller
Office: WB 203e
Telephone: 801-863-8859
E-mail: millerdo@uvsc.edu

The Hospitality Management program prepares graduates for employ-

ment in one of the fastest growing segments of the nation's economy. Students are marketable in a wide range of hospitality and tourism areas such as hotel, resort, and motel management; restaurant and institutional food service; event planning; cruise ship management; convention and visitor facilities; and gaming facilities.

For students interested in management positions in the hospitality industry, the Hospitality Management program offers a Bachelor of Science in Hospitality Management with a track in Hotel/Restaurant Management. The demand for management staff in this industry is tremendous particularly for those with specialized hospitality management skills.

The track in Food and Beverage Management is for students interested in food production management. This track is ideal for those training to be executive chefs, restaurant production managers, institutional food service, or restaurant managers. The demand for management staff in the restaurant industry is high, particularly those with culinary skills.

LEGAL STUDIES

Chair: Brent Bullock
Office: WB 243
Telephone: 801-863-8139
E-mail: bullocbr@uvsc.edu

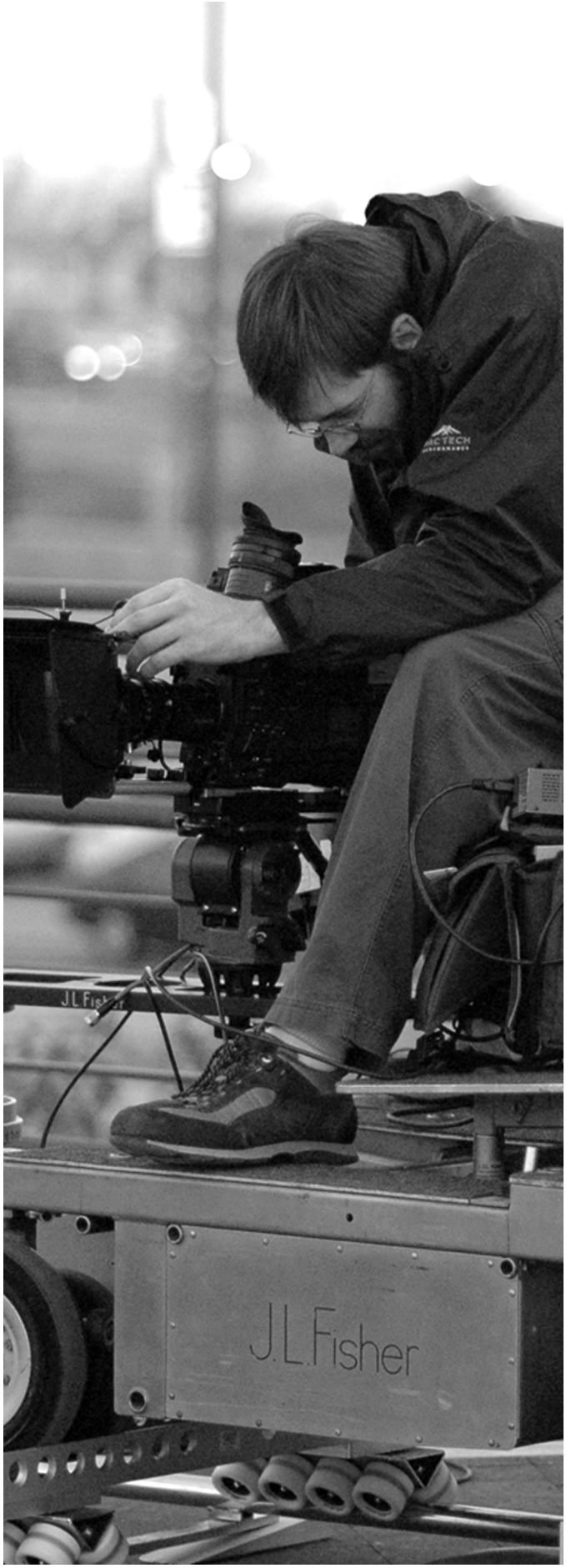
Advisor: Bobbi Gren
Office: WB 247
Telephone: 801-863-8489
E-mail: grenbo@uvsc.edu

The mission of the Department of Legal Studies is to provide educational opportunities that emphasize skills and knowledge that will allow the student to adjust through a lifetime of social change. We recognize that education is vital in developing skills needed for a productive society and essential in promoting the individual's sense of worth, values, and high ethical standards.

Recognizing the need to increase and improve access to the legal system, the Department of Legal Studies promotes quality paralegal education, develops educational standards, and encourages professional growth in order to prepare graduates to perform a significant role in the delivery of legal services.

The Department of Legal Studies provides students with an understanding of how the criminal justice system functions in theory and in practice. The criminal justice program addresses the functions and organization of the criminal justice system integrating critical thinking, reasoning, research, writing, and technology skills. Many of our students assume professional roles within the criminal justice system or matriculate to the study of law or other graduate degrees.

The UVSC Legal Studies Department has the only ABA (American Bar Association) approved paralegal program in Utah.



School of Computing, Engineering and Technology

The School of Computing, Engineering and Technology at Utah Valley State College is committed to educate and train students for careers. Our programs teach students the skills needed to obtain employment in business and industry, and incorporate current up-to-date techniques they will need to compete. Our classes focus on the delivery of pertinent subject-matter materials and provide individual student attention. Our instructors/professors are competent (with industry experience), dedicated, caring, and will do everything possible to assure students a satisfying and beneficial educational/training experience.

DEAN: THOMAS MCFARLAND

Office: CS 720b
Telephone: 801-863-8995

Administrative Assistant to Dean: Jamie Winn
Office: CS 720
Telephone: 801-863-8321
E-mail: winnja@uvsc.edu

Assistant to Dean for Recruiting: Steven Johnson
Office: GT 601
Telephone: 801-863-8373
E-mail: johnsosj@uvsc.edu

Assistant to Dean and Director of Finance: Jennifer Clegg
Office: CS 720a
Telephone: 801-863-8771
E-mail: cleggje@uvsc.edu

Associate Dean: Ernest Carey
Office: GT 605a
Telephone: 801-863-8237
E-mail: careyer@uvsc.edu

Associate Dean: Dennis Fairclough
Office: CS 720c
Telephone: 801-863-8116
E-mail: fairclde@uvsc.edu

Associate Dean: Gordon Stokes
Office: GT 604
Telephone: 801-863-8284
E-mail: stokesgo@uvsc.edu

Associate Dean: Larry Marsing
Office: GT 605b
Telephone: 801-863-8165
E-mail: marsinla@uvsc.edu

Administrative Assistant to Associate Deans: Sallie Dodge
Office: GT 605
Telephone: 801-863-8556

E-mail: dodgesaa@uvsc.edu

Recruitment Coordinator/Rodeo Coach: Lewis Feild
Office: GT 622a
Telephone: 801-863-7074
E-mail: feildle@uvsc.edu

Institute for Emergency Services and Homeland Security

Telephone: 801-863-7700

The Institute of Emergency Services and Homeland Security focuses on Fire and Emergency Services personnel development, Homeland Security education and training, and Emergency Services management education and training. The Institute can collaborate with other institutions of higher education, as well as local, regional, national agencies, and private sector interests, in order to reach all target audiences identified by the Department of Homeland Security, as well as fill a much needed niche in higher education. Collaboration will allow us to work with other dimensions of a broader Homeland Security framework to plan for, create and implement local, regional and possibly national educational and training programs designed to prepare people with responsibilities for prevention, initial response, mitigation, and recovery of local, regional, and/or national security incidents.

DEGREES OFFERED

Bachelor of Science

Aviation Professional Pilot
Business/Marketing Education
Computer Science
- Computer Engineering
- Computer Networking
- Computer Science
- Software Engineering

Information Technology
- Administrative Information Management
- E-Commerce
- Information Technology
- Training and Development

Multimedia Communication Technology
Public Emergency Services Management
Technology Management
- Technical specialties:
- Air Conditioning and Refrigeration Technology
- Apprentice
- - Carpenter Union (JATC)
- - Electrical Construction
- - Electrical Union (JATC)
- - Heating, Ventilation and Air Conditioning
- - Industrial Maintenance
- - Lineman
- - Lineman Meter
- - Lineman Substation
- - Plumber
- - Sheet Metal
- Art and Visual Communications
- Automotive Technology
- Aviation Science
- Building Construction and Construction Management
- Building Inspection Technology
- Cabinetry and Architectural Woodwork
- Collision Repair Technology
- Diesel Mechanics Technology
- Drafting Technology
- Electrical Automation and Robotics Technology
- Electronic and Computer Technology
- Facilities Management
- Fire Science
- Lineman Technology
- Multimedia Communication Technology
- Welding Technology
- Others from regionally accredited institutions offering an AAS degree

Associate in Science/Arts

Administrative Information Management
Aviation Science
Building Construction and Construction Management
Cabinetry and Architectural Woodwork
Computer Science
Drafting Technology
Electrical Automation and Robotics Technology
Electronic and Computer Technology
Fire Science
Information Technology
Pre-Engineering Science

Associate in Applied Science

Administrative Information Support
Air Conditioning and Refrigeration Technology
Apprentice
- AMT
- Carpenter Union (JATC)
- Diesel Mechanics
- Electrical Construction
- Electrical Union (JATC)
- Heating, Ventilation and Air Conditioning
- Lineman
- Lineman Meter
- Lineman Substation
- Mechanical Repair
- Plumber

Automotive Technology
Aviation Science
Building Construction and Construction Management
Building Inspection Technology
Cabinetry and Architectural Woodwork
Collision Repair Technology
Computer Science
- Computer Engineering
- Computer Networking
- Computer Science Programmer
- Web Development Programmer

Custom Street Rod
Culinary Arts
Diesel Mechanics Technology
Electrical Automation and Robotics Technology
- Electrical Automation
- Semiconductor Instrumentation and Maintenance

Electronic and Computer Technology
- Electronic and Computer Technology
- Integrated Circuit Layout and Design
- Pre-Nantotechnology

Facilities Management
Fire Science (with specialization in)
Fire Officer
Firefighter/Paramedic
Information Technology
Lineman Technology
Multimedia Communication Technology
Welding Technology

Associate in Pre-engineering

Civil and Mechanical Engineering
Biological and Chemical Engineering
Computer and Electrical Engineering

Minor

Business Information Technology
Business Education
Basic Business
Business Information Technology
Marketing

Diploma

Automotive Technology
Cabinetry and Architectural Woodwork
Collision Repair Technology
Custom Street Rod
Diesel Mechanics Technology
Electronic and Computer Technology
Lineman
Welding Technology

One-Year Certificate

Administrative Support (Receptionist)
Automotive Technology
Building Construction
Building Inspection Technology
Cabinetry and Architectural Woodwork
Collision Repair Technology
Computer Systems Maintenance
Diesel Mechanics Technology
Firefighter Recruit Candidate
Network Specialis
Paramedic
Programmer

PROGRAMS

For program descriptions, see individual departmental sections in this catalog or on the department webpage.

Air Conditioning and Refrigeration Technology

Chair/Program Coordinator: Steve Fordham
Office: GT 616c
Telephone: 801-863-8167
E-mail: fordhast@uvsc.edu

Office Manager/Advisor: Jennifer Merkley
Office: GT 613e
Telephone: 801-863-7405
E-mail: merkleje@uvsc.edu

Apprenticeship

Director: Ross Ford
Office: Geneva Building (GB102)
Telephone: 801-863-7951
E-mail: fordro@uvsc.edu

Office Manager/Advisor: Cami Staheli
Office: Geneva Building (GB 104)
Telephone: 801-863-7950
E-mail: stahelca@uvsc.edu

Automotive Technology

Chair: Doug Bradley
Office: SA 306
Telephone: 801-863-8124
E-mail: bradledo@uvsc.edu

Program Coordinator: Orrin Nelson
Office: SA 320
Telephone: 801-863-8243
E-mail: nelsonor@uvsc.edu

Office Manager/Advisor: Katreena Davis
Office: SA 306
Telephone: 801-863-7022
E-mail: daviska@uvsc.edu

Aviation Science

Director: Ron Smart, Aviation Flight training/Global Aviation Internet
Office: Provo Municipal Airport
Telephone: 801-863-7810 or 801-863-7836
E-mail: smartro@uvsc.edu

Assistant Director Flight Training: Rich Crandall
Office: Provo Municipal Airport
Telephone: 801-863-7784 or 801-863-7836
E-mail: crandari@uvsc.edu

Assistant Director Global Aviation Internet: Rick Vincent
Office: Provo Municipal Airport
Telephone: 801-863-7755
E-mail: vincenri@uvsc.edu

Building Construction and Construction Management

Chair: Steve Fordham
Office: GT 616c
Telephone: 801-863-8167
E-mail: fordhast@uvsc.edu

Program Coordinator: Bob Dunn
Office: GT 613a
Telephone: 801-863-8249
E-mail: dunnro@uvsc.edu

Office Manager/Advisor: Jennifer Merkley
Office: GT 613e
Telephone: 801-863-7405
E-mail: merkleje@uvsc.edu

Building Inspection Technology

Chair: Steve Fordham
Office: GT 616c
Telephone: 801-863-8167
E-mail: fordhast@uvsc.edu

Program Coordinator: Fred Davis
Office: GT 615
Telephone: 801-863-8861
E-mail: davisfr@uvsc.edu

Office Manager/Advisor: Jennifer Merkley
Office: GT 613e
Telephone: 801-863-7405
E-mail: merkleje@uvsc.edu

Cabinetry and Architectural Woodwork

Chair: Steve Fordham
Office: GT 616c

Telephone: 801-863-8167
E-mail: fordhast@uvsc.edu

Program Coordinator: Kelly Baird
Office: GT 629
Telephone: 801-863-8860
E-mail: bairdke@uvsc.edu

Office Manager/Advisor: Jennifer Merkley
Office: GT 613e
Telephone: 801-863-7405
E-mail: merkleje@uvsc.edu

Collision Repair Technology

Chair: Doug Bradley
Office: SA 306
Telephone: 801-863-8124
E-mail: bradledo@uvsc.edu

Program Coordinator: Don Wilson
Office: SA 325B
Telephone: 801-863-8360
E-mail: wilsondo@uvsc.edu

Office Manager/Advisor: Katreena Davis
Office: SA 306
Telephone: 801-863-7022
E-mail: daviska@uvsc.edu

Culinary Arts Institute

Director: Greg Forte
Office: MC 007e
Telephone: 801-863-8087
E-mail: fortegr@uvsc.edu

Advisor: Julie Slocum
Office: MC 007e
Telephone: 801-863-8914
E-mail: slocumju@uvsc.edu

Computer Information Technology and Education

Chair: Christopher G. Jones
Office: CS 601g
Telephone: 801-863-8308
E-mail: jonescg@uvsc.edu

Business/Marketing Education Director: Kathleen Richards
Office: CS 601c
Telephone: 801-863-8719
E-mail: richarka@uvsc.edu

Advisor: Bonnie Cook
Office: CS 520b
Telephone: 801-863-8403
E-mail: cookbo@uvsc.edu

Computing and Networking Sciences

Chair: Keith Olson
Office: CS 520j
Telephone: 801-863-6392
E-mail: olsonke@unsc.edu

Advisor: Patti Miner
Office: CS 520a
Telephone: 801-863-8408
E-mail: minerpa@uvsc.edu

Advisor: Fred Orchard
Office: CS 632
Telephone: 801-863-6238
E-mail: orcharfr@uvsc.edu

Diesel Mechanics Technology

Chair/Program Coordinator: Doug Bradley
Office: SA 306
Telephone: 801-863-8124
E-mail: bradledo@uvsc.edu

Program Coordinator: Don Ray Nelson
Office: SA 317
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E-mail: nelsonda@uvsc.edu

Office Manager/Advisor: Katreena Davis
Office: SA 306
Telephone: 801-863-7022
E-mail: daviska@uvsc.edu

Electrical Automation and Robotics Technology

Chair: David Manning
Office: CS 704e
Telephone: 801-863-8085
E-mail: manninda@uvsc.edu

Program Coordinator: Larey Lawrence
Office: CS 526
Telephone: 801-863-6051
E-mail: lawrenla@uvsc.edu

Office Manager/Advisor: Sallie Dodge
Office: CS 526
Telephone: 801-863-8556
E-mail: dodgesa@uvsc.edu

Electrionic and Computer Technology

Chair: David Manning
Office: CS 704e
Telephone: 801-863-8085
E-mail: manninda@uvsc.edu

Program Coordinator: Rodney Kendall
Office: CS 526
Telephone: 801-863-8826
E-mail: kendalro@uvsc.edu

Office Manager/Advisor: Sallie Dodge
Office: CS 526
Telephone: 801-863-8629
E-mail: dodgesa@uvsc.edu

Engineering Graphics and Design Technology

Chair: David Manning
Office: CS 704e
Telephone: 801-863-8085
E-mail: manninda@uvsc.edu

Program Coordinator: Robert Price

Office: CS 704d
Telephone: 801-863-8145
E-mail: pricero@uvsc.edu

Office Manager/Advisor: Christine Bigelow
Office: CS 704
Telephone: 801-863-8363
E-mail: bigeloch

Facilities Management

Chair: Steve Fordham
Office: GT 616c
Telephone: 801-863-8167
E-mail: fordhast@uvsc.edu

Program Coordinator: J. Eric Linfield
Office: GT 613d
Telephone: 801-863-8250
E-mail: linfieer@uvsc.edu

Office Manager/Advisor: Jennifer Merkley
Office: GT613e
Telephone 801-863-7405
E-mail: merkleje@uvsc.edu

Fire Science/Utah Fire & Rescue Academy

Department Chair: Gary Noll
Office: Provo Airport (PA 120)
Telephone 801-863-7741
E-mail: nollga@uvsc.edu

Program Coordinator: Margaret Mittelman, EMT
Office: Provo Airport (PA 105)
Telephone: 801-863-7744
E-mail: mittelma@uvsc.edu

Program Coordinator: Barry Stone, Paramedic
Office: Provo Airport (PA 205)
Telephone: 801-863-7747
E-mail: stoneba@uvsc.edu

Office Manager/Advisor: Bonnie Fehr
Office: Provo Airport (PA 205)
Telephone: 801-863-7734
E-mail: fehrbo@uvsc.edu

Academic Advisor: Yudi Lewis
Office: Provo Airport (PA 205)
Telephone: 801-863-7753
E-mail: lewisyu@uvsc.edu

Director: Jeff Maxfield, Utah Fire & Rescue Academy
Office: Provo Airport (PA 205)
Telephone 801-863-7736 or 1-888-548-7816
E-mail: maxfije@uvsc.edu

Lineman Technology

Chair: Steve Fordham
Office: GT 613e
Telephone: 801-863-8167
E-mail: fordhast@uvsc.edu

Program Coordinator: Max Christofferson
Office: Geneva Building (GB 242)
Telephone: 801-863-7982
E-mail: christma@uvsc.edu

Office Manager/Advisor: Jenny Hoover
Office: Geneva Building (GB 200)
Telephone: 801-863-7980
E-mail: hooverje@uvsc.edu

Multimedia Communication Technology

Department Chair: Loretta Palmer
Office: CS 624
Telephone: 801-863-8361
E-mail: palmerlo@uvsc.edu

Advisor: Susan Stevens
Office: CS 632
Telephone: 801-863-7454
E-mail: stevensu@uvsc.edu

Pre-Engineering Science

Department Chair: Keith Olson
Office: CS 520j
Telephone: 801-863-6392
E-mail: olsonke@unsc.edu

Advisor: Fred Orchard
Office: CS 632
Telephone: 801-863-6238
E-mail: orcharfr@uvsc.edu

Technology Management

Department Chair: David Johnson
Office: CS 601b
Telephone: 801-863-6152
E-mail: johnsoda@uvsc.edu

Academic Advisor: Amy Ostler
Office: GT 616a
Telephone: 801-863-8138
E-mail: ostleram@uvsc.edu

Welding Technology

Department Chair: Steve Fordham
Office: GT 616c
Telephone: 801-863-8167
E-mail: fordhast@uvsc.edu

Program Coordinator: Lynn Baadsgaard
Office: GT 525
Telephone: 801-863-8135
E-mail: baadsgly@uvsc.edu

Office Manager/Advisor: Jennifer Merkley
Office: GT 613
Telephone: 801-863-7405
E-mail: merkleje@uvsc.edu

School of Education

The mission of the Utah Valley State College School of Education is empowering the students through ethics, knowledge, and preparation.

DEAN: BRIANT J. FARNSWORTH

Office: EB 117B
Telephone: 801-863-8006

DEGREES OFFERED

Bachelor of Science

- Early Childhood Education/Dual
- Elementary Education
- Secondary Education
  - Biology Education
  - Business Education
  - Chemistry/Physics Education
  - Earth Science Education
  - English Education
  - History Education
  - Math Education

Associate of Arts/Science Emphases

- Early Childhood Education
- Pre-Elementary Education

Minors

- English Education
- Business Education
  - Basic Business
  - Information Technology
  - Marketing

Certificate

- Early Care Education

DEPARTMENTS

Department of Elementary Education

Department Chair: Susan Simmerman
Office: EB 116A
Telephone: 801-863-5097

Department Office Manager: Kenzie Wagoner
Office: EB 117
Telephone: 801-863-8228

Field Director: Linda Benson
Office: EB 112J
Telephone: 801-863-8588

Advisor: Leslie Hudson
Office: EB 114B
Telephone: 801-863-8527

Children's Center
Office: EB 134 & 135
Telephone: 801-863-8146

Elementary Education Partner Schools:

- Alpine School District - Elementary Schools: Aspen, Barrett, Cedar Ridge, Deerfield, Foothill, Greenwood, Legacy, Lehi, Mt. Mahogany, Orem, Saratoga Shores, Scera Park, Sego Lily, Valley View, Vineyard, Westfield
- Granite School District - Elementary Schools: Frost, Oakwood.
- Jordan School District - Elementary Schools: Herriman, Ridgecrest, Foothill.
- Nebo School District - Elementary Schools: Brockbank, Grant, Rees, Salem, Parkview.
- Provo School District - Elementary Schools: Amelia Earhart, Canyon Crest, Provost, Wasatch.

Department of Secondary Education

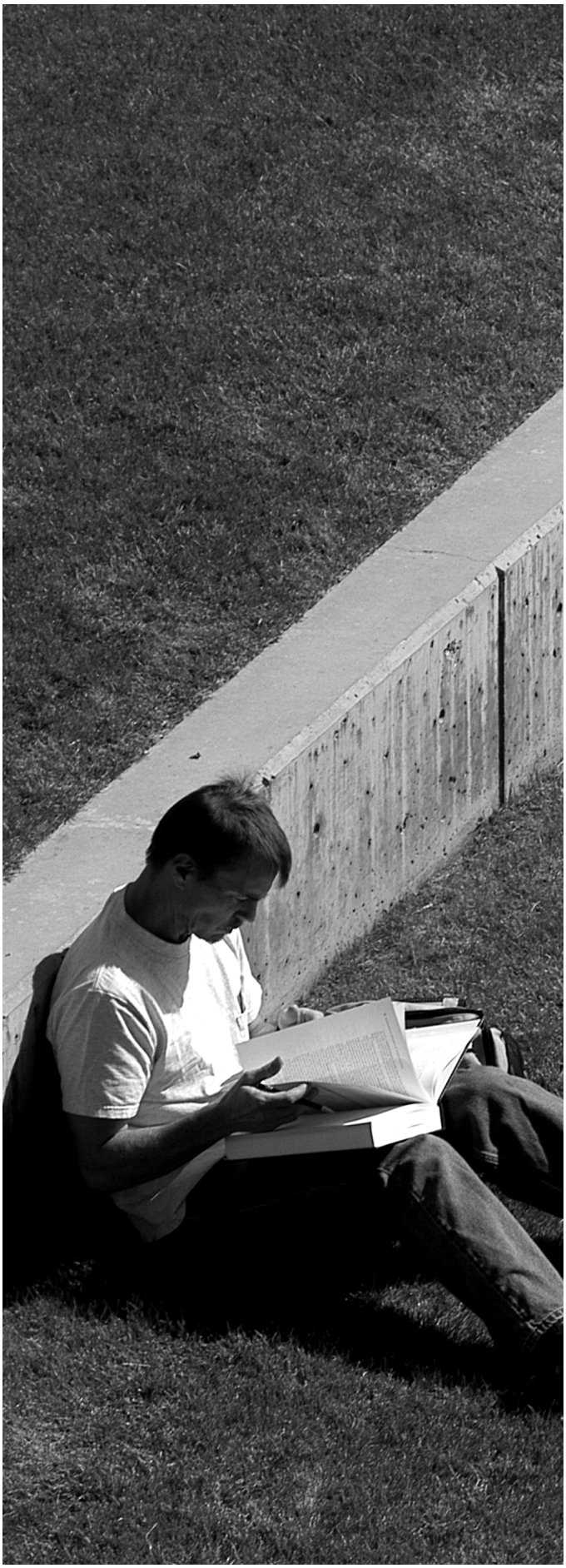
Department Chair: Roger Wise
Office: EB 116B
Telephone: 801-863-8499

Department Office Manager: Kenzie Wagoner
Office: EB 117
Telephone: 801-863-8228

Field Director: Numsiri Kunakemakorn
Office: EB 112G
Telephone: 801-863-7228

College Secondary Education Committee:

- School of Computing, Engineering and Technology - Kelly Baird, Bonnie Cook, Diane Hartman, Tom McFarland, Kathleen Richards.
- School of Education - Briant Farnsworth, Numsiri Kunakemakorn, Martin Kokol, Axel Ramirez, Roger Wise.
- School of Humanities, Arts and Social Sciences - Douglas Anderson, Dawn Chase, William Cobb, Fred Silvia, Kay Smith, Kim Strunk, Hannah Thomson, Sandy Vogel, David Wilson
- School of Science and Health - Dennis Allison, Calvin Bond, Vance Hillman, Daniel Horns, Christine Merrin, Dee Oyler, Shaunna McGhie, Sam Rushforth, Paul Tayler, Richard Tolman.
- Associate Vice President of Academic Affairs - Karl Worthington
- Vice President of Academic Affairs - Brad Cook



School of General Academics

The School of General Academics, through the complimentary and collaborative missions of its components, focuses on assisting students exploring the directions of their academic careers, seeking flexibility in degree choices, or undertaking enhanced college experiences. The interdisciplinary nature of General Academics promotes the academic excellence of Utah Valley State College.

DEAN: BONNIE G. HENRIE

Office: LA 210c
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Fax: 801-863-7060
E-mail: bonnie.henrie@uvsc.edu

Associate Dean: Karen D. Taylor
Office: LA 210e
Telephone: 801-863-8949
E-mail: kd.taylor@uvsc.edu

Assistant Dean: Lisa Lambert
Office: LA 210d
Telephone: 801-863-8741
E-mail: lisa.lambert@uvsc.edu

Administrative Assistant: Frankie Jensen
Office: LA 210
Telephone: 801-863-6312
E-mail: frankie.jensen@uvsc.edu

DEGREES OFFERED

Bachelor of Arts

Integrated Studies

Bachelor of Science

Integrated Studies

Associate in Arts

General Academics
Integrated Studies

Associate in Science

General Academics
Integrated Studies

INTERDISCIPLINARY PROGRAMS

HONORS
Director: JaNae Brown Haas
Office: LA 030f
Telephone: 801-863-8067
Fax: 801-863-7060
E-mail: janae.haas@uvsc.edu

Assistant:
Office: LA 030g
Telephone: 801-863-6262

Fax: 801-863-7060

The Honors Program is designed for students seeking an intellectual-challenge and an enriching curriculum from both student and faculty perspectives. The emphasis is on academic development based on small, interactive group experiences and includes a series of stimulating social, cultural, and service opportunities. Honors courses stress analysis through intensive writing, discussion and reading.

Beginning Fall 2006 UVSC will launch a revised and expanded Honors Program including a residential living component, leadership opportunities, and numerous means of recognition to continue to build a tradition of excellence. This will signal a commitment to building a critical mass of diverse students and offering a program that rewards individual achievement at the same time it builds a fully developed cohort. Such a cohort will include students from a wide cross-section of academic disciplines and enhance the educational experience of honors students, as well as the student body at large, and will have important impacts on the college, local, and national community.

INTEGRATED STUDIES

Director: Scott Abbott
Office: LA 109d
Telephone: 801-863-8537
E-mail: scott.abbott@uvsc.edu

Advisor: Lynne Hetzel
Office: LA 109f
Telephone: 801-863-8405
E-mail: lynne.hetzel@uvsc.edu

The Program in Integrated Studies serves students with interests and capabilities in more than one scholarly discipline. The degree trades disciplinary depth for breadth and for cross-disciplinary research and writing that culminate in a senior thesis. The Program encourages and supports interdisciplinary study across campus.

DEPARTMENTS

The School of General Academics values student-centered learning and focuses on assisting students exploring the direction of their academic careers, seeking flexibility in degree choices, or undertaking an enhanced college experience. General Academics' interdisciplinary composition supports all areas in increasing the academic excellence of Utah Valley State College

LIBRARY

Losee Building - 3rd & 4th Floors
Telephone: 801-863-8265
Fax: 801-863-7065
http://www.uvsc.edu/library

Hours: 7 a.m. - 11 p.m. Monday -Thursday
7 a.m. - 7 p.m. Friday
8 a.m. - 5 p.m. Saturday

Director: Michael J. Freeman
Office: LC 403
Telephone: 801-863-8751

Assistant Director: Kimberly Rollins
Office: LC 312e
Telephone: 801-863-8752

The Utah Valley State College Library supports the College mission of teaching, learning and scholarship by providing access to quality information resources, offering exceptional services, utilizing current trchnology to enhance research, promoting information literacy, and ensuring intellectual freedom.

Library Advisory Board: Cindy Clark, Chair; Jeff Kahn; Doyle Mortimer; Gene Nelson; Chriss Pope; Joel Sybrowsky.

The library houses 195,000 volumes, 10,500 videos, and nearly 18,500 periodicals in print or electronic format. Reference service is available daily to help students doing research; formal classroom instruction is also available. The library network provides electronic access to over 90 indexes and databases, six full-text newspaper databases, and library book catalogs throughout Utah, the United States and the world. Full Internet access is available. Through the Utah Academic Library Consortium, UVSC student cards are good at all public and private academic libraries in Utah. Web-based Interlibrary Loan moves materials quickly between consortium members.

The Library contains reserve materials (including electronic reserve) for instructors, a teacher education resource center, group study rooms, specialized equipment in a research room for students with disabilities, and hosts a series of art exhibits throughout the year.

BASIC COMPOSITION/ENGLISH AS A SECOND LANGUAGE

Department Chair: Forrest G. Williams
Office: LA 234e
Telephone: 801-863-8494

ESL Program Director: Kevin Eyraud
Office: LA 221f
Telephone: 801-863-7091

The Basic Composition/ESL Department is dedicated to assisting students and community members who wish to improve their writing skills in preparation for taking college courses or for self-improvement. Both the Basic Composition and ESL programs include emphasis on accuracy and clarity in language use, critical thinking, current events, organizational skills in speech and writing, comprehending and responding to written texts, and using logic and support to present oral and/or written arguments. The Basic Composition/ESL Department strives to accomplish its mission by providing a learner-centered environment which allows students to develop self-confidence along with the skills necessary to succeed in their academic or occupational endeavors. The Department uses a variety of instructional formats including traditional classroom settings, computerized instruction, collaborative learning exercises, peer and individualized tutorials, and individualized instruction to meet student needs.

COLLEGE SUCCESS AND ACADEMIC LITERACY

Department Chair: Denise Hodgkin
Office: LA 234f
Telephone: 801-863-8277

Student Success, Academic Director of Student Success Program: Michael Jensen
Office: LA 210a
Telephone: 801-863-7090

The department mission is to help students acquire the knowledge, skills and abilities needed to meet the challenges of college. Students may choose from a variety of College Success (CLSS) and Critical Thinking and Reading Strategies (CTRS) courses which best fit their academic needs. The College Success courses better prepare students for the demands of college life, the selection and pursuit of major and career

paths to graduation, developing effective ways to manage time, learning, and stress, library research techniques, and the development of other essential life skills. The Critical Thinking and Reading Strategies courses teach students to effectively process, reduce, and remember the essentials from college courses and texts. Also presented are test taking and memory skills, speed reading techniques, and other learning strategies which help students increase their academic confidence and success.

DEVELOPMENTAL MATHEMATICS

Department Chair: Hazel J. McKenna
Office: LA 217b
Telephone: 801-863-8748

Associate Chair: Carole Sullivan
Office: LA 217c
Telephone: 801-863-7318

Evening Coordinator: Ofa Ioane
Office: LA 217n
Telephone: 801-863-6186

The courses offered by the Department of Developmental Mathematics are designed to provide a foundation in preparatory mathematics that is required for future classes in mathematics and that support our students in many disciplines. The courses also provide for the development of critical thinking skills that are applicable to all aspects of academic life.

The Department of Developmental Mathematics offers MAT 1000 and MAT 1010, Intermediate Algebra as transferable, college credit classes, and as prerequisites for MATH 1030, MATH 1040, and MATH 1050. The Department of Developmental Mathematics also offers preparatory, non-transferable courses for students who need to strengthen mathematics skills before entering MAT 1010.

ENGLISH AS A SECOND LANGUAGE

Program Director: Kevin Eyraud
Office: LA 221f
Telephone: 801-863-7091

Department Chair: Forrest Williams
Office: LA 234e
Telephone: 801-863-8494

The English as a Second Language program has three goals:

- To assist international students in becoming proficient in English communication skills of listening, speaking, reading, and writing.
- To prepare international students to succeed either in college or in the job market.
- To familiarize international students with the American culture.

All students are required to take a placement examination prior to registration for any courses. Placement/promotion testing is done at the beginning and end of each semester. All students who successfully complete the advanced level courses and meet the ESL program exit criteria are admitted into the college for regular academic studies.

ACADEMIC SUPPORT PROGRAMS

Academic Tutoring

Academic Tutoring is available at no charge to all UVSC students. Qualified tutors provide one-on-one tutorials and help lead group study sessions and workshops. Information about tutoring or learning assistance programs may be obtained by contacting coordinators of any of the following services.

Learning Assistance

Learning Strategist: Bonnie Jean Blackburn
Office: Academic Tutoring, LC 208
Telephone: 801-863-7418

The Learning Strategist provides many resources for students:

- Advisement in developing a personalized program of study processes
- Student success workshops
- Preparation for the Compass test
- Computer-assisted instruction
- Referral to other services and agencies

Math Tutoring

Coordinator: Kathryn Van Wagoner
Office: Academic Tutoring, LA 201
Telephone: 801-863-8411
Online: http://www.uvsc.edu/mathlab
Free one-on-one math tutoring on a walk-in basis for all UVSC students is available in the Math Lab. Other services are group tutor sessions, textbooks and solutions manuals for checkout and use in the lab, videos to accompany most math classes, assistance with or checking-out of calculators, Math Lab Online Internet tutoring http://www.uvsc.edu/mathlab Individualized tutoring is available on a limited basis.

Peer Tutoring

Drop In Lab: LC 203

Coordinator: Regie Holdaway
Office: LC 203a
Telephone: 801-863-8356
http://www.uvsc.edu/opt

Drop-in tutoring, supplemental instruction, group study sessions and one-on-one tutoring are provided for academic courses other than math or English. Tutoring assistance is available on campus and on the internet through Online Peer Tutoring (http://www.uvsc.edu/opt) to students enrolled in UVSC courses.

Writing Center

Coordinator: Lisa Eastmond Bell
Office: Academic Tutoring, LA 201
Telephone: 801-863-8099
Online: http://www.uvsc.edu/owl

The Writing Center provides free one-on-one tutoring to all UVSC students. Students may bring writing assignments for any class and meet with a tutor by appointment or by dropping in for a tutorial. In addition, the Center offers writing workshops, handouts, practice grammar tests, typing tutorial programs, reference books, textbooks, writing manuals, ESL materials, and the On-line Writing Lab (OWL) http://www.uvsc.edu/owl.

School of Humanities, Arts and Social Sciences

The School of Humanities, Arts and Social Sciences offers degree programs and courses of study in several disciplines. Through superb teaching, students and graduates of the School acquire many of the intellectual and practical skills necessary for the workplace, for further professional and graduate study, and for participation in the community and in the nation.

In the challenging, yet nurturing, environment of the classroom, and through undergraduate scholarship, research, and service-learning projects, our students have the opportunity to reach their academic and employment goals. Many of the School's graduates move right into the workforce, and many others continue their education in fields such as law, business, medicine, government, teaching, the social sciences and the fine arts.

DEAN: WILLIAM W. COBB, JR.

Office: LA 209d
Telephone: 801-863-7435

Associate Dean: Kathie Debenham

Office: LA 209b
Telephone: 801-863-7129

Assistant Dean: William Bridges

Office: LA 209f
Telephone: 801-863-8094

DEGREES OFFERED

Bachelor of Fine Arts

- Art and Visual Communications
  - Design/Illustration Emphasis
  - Photography Emphasis
  - Studio Arts Emphasis
- Dance
  - Ballet Emphasis
  - Modern Dance Emphasis

Bachelor of Arts/Science

- Art and Visual Communications
- Behavioral Science
  - Anthropology Emphasis
  - Psychology Emphasis
  - Sociology Emphasis
  - Social Work Emphasis
- Dance Education
- English
  - Creative Writing Emphasis
  - Literary Studies Emphasis

History
Movement Studies
Ballroom Dance Emphasis
Philosophy
Spanish
Secondary Education
English
History
Spanish

Associate of Arts/Science Emphases

Art and Visual Communications
Behavioral Science
Dance
English
English: Technical Writing Specialization
History/Political Science
Humanities
Music
Philosophy
Theatre

Associate of Applied Science

Art and Visual Communications
Design/Illustration Specialization
Graphic Design Specialization
Photography Specialization

Minor

American Studies
Deaf Studies
English Education
History
Literary Studies
Religious Studies
Spanish
Technical Writing

Certificate

Art and Visual Communications

Other

Technical Writing Certification
Secondary Education Licensure

DEPARTMENTS

Department of Art and Visual Communications

Chair: Doug Anderson
Office: GT 535b
Telephone: 801-863-8341

The Department of Art and Visual Communications provides technical and aesthetic training in fine art, design, illustration and both traditional and computer-based graphics production processes. Courses offering both hands-on and theoretical experiences are designed to prepare the graduate for entry-level employment in the exciting and highly diversified field of visual communications. In addition to career training, the Department provides opportunities for students who wish to explore drawing, painting, sculpture, ceramics, photography and crafts. Many courses in the Department fill general education requirements in the fine arts distribution area. Upper division courses may be applied toward the AAS, AA/AS, BA/BS, or BFA degrees in Art and Visual Communications; they may also apply toward our Integrated Studies or Technology Management pre-majors.

Department of Behavioral Science

Chair: David Yells
Office: LA 012b
Telephone: 801-863-8083/863-8585

The mission of the Department of Behavioral Science is to prepare students for careers in the fields of psychology, sociology, social work, anthropology and other related professions. Finding solutions to human problems involves the ability to apply academic theories to the real world. Behavioral Science students learn academic rigor in writing, critical thinking and analysis and integration of current scientific research. A multicultural perspective and respect for the range of individual differences are central to the department's mission. Insight, skill acquisition and personal application are also important collateral aspects of a student's exposure to the behavioral sciences. Classes are frequently taught using experiential methods and collaborative assignments. Students are challenged to be curious about those they don't understand, kind to those they love and gentle with those younger and older than themselves.

Department of Communication

Chair: Philip Gordon
Office: FA 727
Telephone: 801-863-8186

The mission of the Department of Communication is to help students prepare for careers that demand skills in oral, written and visual communication in interpersonal, organizational, print and electronic contexts. Virtually every modern field of endeavor has increasing demand for specialists with training in the field of communication. Traditional areas of employment for communication students include: print and electronic journalism; print and electronic entertainment; public relations (public affairs, media relations, customer relations, press agentry, marketing, etc.); advertising; various sorts of writing, reviewing, and editing; training; video production; sales and management. Today, new media technologies are expanding the need for communication specialists, as well as their range of skills, which now include multimedia literacy. Communication also provides excellent preparation for graduate study in the fields of business, education, law, psychology, and, of course, communication.

The department offers programs of study leading to Associate in Arts/Science and Bachelor of Arts/Science degrees.* (*Communication is available as an emphasis for a B.A. or B.S. in Integrated Studies.) Programs of study in Communication at UVSC 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 interpersonal communication, intercultural communication, international communication, organizational communication, mass communication, public relations, media and film studies, argumentation and debate and print, radio and television journalism.

Encouraging student internships, and working closely with Student Media and other units on campus, the curriculum balances traditional, academic-style learning with applied, practical approaches to study in the field, as exemplified in our broadcast journalism courses, which culminate in a student-produced, locally-broadcast television news show.

Department of Dance

Chair: Kim Strunk
Office: LA 111g
Telephone: 801-863-8610

The Department of Dance provides innovative and intensive technical and reflective study in dance as an artistic, as well as an academic,

discipline. Courses in dance foster a deeper appreciation for the power and substance of expressive human movement as students broaden and deepen their technical, theoretical, historical, scientific and aesthetic knowledge of dance. Grounded in the belief that dance is both a personal and cultural expression that has existed in all cultures throughout history, the department aims to present dance as a way of knowing, as well as a distinct discipline having content that provides insight and understanding in many fields of study that concern themselves with human movement. Students in dance experience academic rigor in critical thinking, writing, analysis, interpretation and cross-disciplinary integration, as well as artistic rigor in technique, improvisation, choreography and performance. Upon completion of the dance degree, students are prepared to audition for and transfer into a four-year baccalaureate program in dance. Upper division classes may be applied towards a dance emphasis in the four-year Integrated Studies degree.

Department of English and Literature

Chair: Jen Wahlquist
Office: LA 126e
Telephone: 801-863-8757

Assistant Chair: Rick McDonald
Office: LA 126f
Telephone: 801-863-8365

The Department of English and Literature provides an innovative and stimulating learning environment to help students broaden their cultural experiences, deepen and refine their abilities in critical thinking and improve their skills in written and verbal communication. By offering courses, programs and activities in literature, creative writing, college-level composition, and technical communication, the department aims to foster an invigorating and diverse learning community that changes the ways students envision themselves and the world, making them more thoughtful and productive contributors to their communities. Students pursuing English studies gain invaluable workplace skills: they think more critically; they learn how to be creative and communicate clearly and logically; they comprehend the ways language defines and affects behavior and they come to understand the complexity of human relations in various cultural and historical contexts.

Department of Foreign Languages

Chair: Del Shumway
Office: LA 003a
Telephone: 801-863-8518

The Department of Foreign Languages promotes global awareness, intercultural understanding and international insights by providing instruction in eight languages (American Sign Language, Chinese, German, French, Japanese, Portuguese, Russian and Spanish). The lower division courses (1000-2000 level) fulfill Associate in Arts and Bachelor of Arts program requirements; the upper division courses (3000-4000 level) apply to degree program requirements, including the Spanish and Spanish Education degrees, the Integrated Studies degree (emphasis in Spanish, French, or ASL), the Deaf Studies minor, and the Spanish minor. Language instruction is enhanced by excellent, caring instructors who are supported by a multimedia language lab focused on cutting-edge technology in the delivery of instruction.

Department of History and Political Sceince

Chair: Keith Snedegar
Office: LA 030e
Telephone: 801-863-8847

The Department of History and Political Science embraces the disciplines of archaeology, geography, history, economics and political science. We are dedicated to providing students with a broad range of opportunities in general education and discipline-specific courses. Our classes lie at the heart of the collegiate experience. In our classes, we explore the dynamics of the human condition through historical, spatial, economic and political perspectives. We endeavor to teach in ways that foster independent thinking, the analysis of human issues through reading and discussion and the development of writing skills. Students who complete our programs will be well equipped for successful careers in public service and private enterprise, in addition to becoming informed citizens. Many courses in the department fill general education requirements in the social science distribution area. Upper division courses may be applied toward the B.A. degree in History, the B.S. degree in History Education or toward an emphasis in the four-year Integrated Studies degree.

Department of Music

Chair: Bryce Rytting
Office: GT 336a
Telephone: 801-863-8347

People trained in music find careers as teachers, conductors, performers, composers, music librarians, administrators and music therapists. An Integrated Studies emphasis in Music is available. In addition to providing personal enrichment opportunities, music courses may also satisfy general education requirements and transfer to other four-year institutions. UVSC students may audition for membership in the performing groups.

Department of Philosophy and Humanities

Chair: Brian Birch
Office: LA 121
Telephone: 801-863-8352

Associate Chair: Christine Weigel
Office: LA 121
Telephone: 801-863-8352

Humanities Section Head: Eberhard Lehnardt
Office: LA 121
Telephone: 801-863-8352

The Department of Philosophy and Humanities commits to providing critical study of the creative and intellectual underpinnings of the liberal arts curriculum that connects students to the past, present and future. Students will understand and be able to apply foundational philosophical concepts in all major disciplines, including concepts from multicultural, historical, artistic and values-conscious belief systems. The department is dedicated to enhancing critical thinking and writing skills to support student occupational and academic endeavors.

Department of Theatrical Arts for Stage and Screen

Chair: Terry Petrie
Office: FA 709
Telephone: 801-863-7222

The Department of Theatrical Arts for Stage and Screen offers programs of study leading to the Associate in Science degrees. Courses satisfy general education requirements and transfer to four-year institutions. Students trained in theatrical arts go on to find careers in education (children's theatre, K-12, college and conservatory), entertainment (performance, direction, or writing), production (design and construction or implementation for lights, sound, sets, props, and costumes and make-up) and management (producing, public relations, house and stage management, theatre ownership and arts

management) in both the theatre and film industries.

Theatre students perform and support from six to nine public productions per year, including musical, classical and modern genres. The study of both theatre and film provides cultural enrichment for students (majors and non-majors alike), cultivating life skills necessary for success in all professional pursuits. Both emphases attempt to balance traditional, academic-style learning with applied, practical skills. Students of both emphases experience hands-on training, an immediate feeling of belonging and multiple opportunities for personal growth, interpersonal development, cultural enrichment and social understanding.

Committee on Interdisciplinary Studies

Chair: David Knowlton
Office: LA 012w
Telephone: 801-863-6196

The Committee on Interdisciplinary Studies provides a framework for supporting innovative, boundary-crossing inquiry among students and faculty in the School of Humanities, Arts and Social Science, and across campus. To this end, the committee coordinates the efforts of existing multidisciplinary programs and provides guidance and support as new programs are envisioned and established.

The boundaries between disciplines form a fertile ground for creative and innovative research. New knowledge grows in these developing and interstitial fields that often does not fit easily into the standard demarcations of academic departments. While the disciplines have their role to play, future scholarships will depend in part on shifting configurations of resources. This type of scholarship asks questions that draw on established bodies of thought, while reworking certain connections and concerns in order to explore vibrant and valuable new areas.

Martin Luther King, Jr. Commemoration Advisory Board

Coordinator: Ryan Simmons
Office: LA 109h
Telephone: 801-863-6290

The Martin Luther King, Jr. Commemoration is an interdisciplinary conference dedicated to researching and promoting civil rights. This event provides a forum for students and faculty alike, to discuss ideas, raise questions and attempt to understand the significance of civil rights issues past, present, and future. The Advisory Board oversees the organization, planning and appraisal of the commemoration.

School of Humanities, Arts and Social Sciences Advisory Board

Chair: Adam Robertson
Marketing and Development Director,
SCERA Corporation

The Advisory Board of the School of Humanities Arts, and Social Sciences is an active partner in refining the vision and accomplishing the goals of the School. Chosen for their demonstrated leadership and accomplishments in the arts, business and/or community service, Board members provide valuable counsel and assistance in the areas of student development, faculty relations and development-related activities and events. Success in these focus areas contributes significantly to the dynamic environment of Utah Valley State College.

School of Science and Health

The School of Science and Health is committed to providing courses and programs to meet community needs for professional education, general education, skill development, personal and career enhancement. The faculty of the School is committed to providing an atmosphere in which students can actively participate in learning, questioning and developing a scholarly approach to the sciences. All programs in the School emphasize critical thinking and lifelong learning.

DEAN: SAM RUSHFORTH

Office: PS 201a
Telephone: 801-863-8980
E-mail: rushfosa@uvsc.edu or sam.rushforth@uvsc.edu

Associate Dean: Bill Evenson
Office: PS 201e
Telephone: 801-863-6440
E-mail: bill.evenson@uvsc.edu

Associate Dean: Lori Barber
Office: BA 203c
Telephone: 801-863-8380
E-mail: barberlo@uvsc.edu

Assistant Dean: David Jordan
Office: PS 201c
Telephone: 801-863-7160
E-mail: jordanda@uvsc.edu

The faculty of the School of Science and Health is committed to:

1. Developing of courses and programs which will provide students with the knowledge to succeed in their chosen profession.
2. Delivering high quality courses and programs using teaching methodologies which stimulate learning.
3. Maintaining and improving faculty expertise in specific disciplines and education/pedagogy.
4. Identifying and advising students who are "at risk."
5. Using classroom assessments to determine student progress and course/program evaluation.
6. Providing students with a clear explanation of course prerequisites and requirements for successful completion of courses.

DEGREES OFFERED

Bachelor of Science

Biology
Biology Education
Chemistry
Community Health
- Community Health Education
- Health Services Administration

Composite Chemistry and Physics Education
Earth Science
Earth Science Education
Mathematics
Mathematics Education
Nursing

Physical Education
- Exercise Science
- Outdoor Recreation Management

Physical Education Teacher Education
Physics
School Health Education

Associate in Science Emphases

Biology
Community Health
Mathematics
Nursing
Physical Education and Recreation
- Physical Education
- Recreation

Physical Science

Associate in Applied Science

Dental Hygiene

Minors

Chemistry
Community Health Education
Earth Science
Mathematics
Physical Education
Physics
School Health Education

DEPARTMENTS

Department of Biology

Chair: Mark Bracken
Office: PS 208
Phone: 801-863-8739
E-mail: brackerma@uvsc.edu

Advisor: John Lersch
Office: PS 202c
Phone: 801-863-8511
E-mail: lerschjo@uvsc.edu

The Department of Biology is dedicated to providing students with a better understanding of the living world and the nature of life. Courses in the department challenge students to think scientifically and apply what they have learned to their lives. Many courses include opportunities for field work, dissections, molecular techniques, etc. that allow students to gain hands-on experience. The baccalaureate degree prepares students for careers in biology-related fields in addition to providing the foundation for further studies in graduate or medical schools. The faculty in the department include well qualified individuals in their fields of expertise who bring a wealth of knowledge to the classes they teach. Students may take courses or pursue research in areas that include endangered plant species, molecular biology of gene expression, or the physiology of respiration.

Department of Chemistry

Chair: Dee Oyler
Office: PS 221
Telephone: 801-863-8638
E-mail: oylerde@uvsc.edu

Advisor: Calvin Bond
Office: PS 219
Telephone: 801-863-7137
E-mail: bondca@uvsc.edu

The Chemistry Department is dedicated to providing a high quality chemistry education for the students at Utah Valley State College. The Department offers a wide variety of classes to support other departments and to supply excellent training leading to a Bachelor of Science in Chemistry or a Bachelor of Science in Chemistry and Physics Education. The Chemistry faculty is committed to encouraging students to learn and to do research not only in their coursework, but in their lifelong careers.

Department of Community Health

Chair: Robert O. Walsh
Office: PE 147b
Telephone: 801-863-6193
E-mail: walshro@uvsc.edu

Advisor: Lynley Rowan
Office: PE 229
Telephone: 801-863-6228
E-mail: rowanly@uvsc.edu

The mission of the Department of Community Health is to contribute to the improvement of the well-being of individuals, families and communities. Academic study and course work are designed to guide students toward the intelligent self direction of their health behavior. The department is committed to the development of academic programs that will assist students in the achievement of their professional goals, within the health care field. The faculty is dedicated to superior teaching, professional development (scholarship), and service.

Department of Dental Hygiene

Chair: George Veit
Office: BA 203d
Telephone: 801-863-7536
E-mail: veitge@uvsc.edu

Advisor: George Veit

The Department of Dental Hygiene's mission is to train students to be effective and responsible health care providers. As part of the dental team, the hygienist is responsible for providing preventative, therapeutic and educational methods for the control of oral disease, and provision of emergency services. The dental hygienist provides care to patients in a variety of settings including private dental practices, school systems, public health agencies, Federal and State agencies, hospitals, nursing homes, the World Health Organization, and foreign governments, The hygienist also participates in community actions designed to optimize health and health care in the community. A five step process of care consisting of assessment, diagnosis, planning, implementation and evaluation is emphasized through the curriculum. Ethical, legal and professional responsibilities as well as communication skills, critical thinking and commitment to lifelong learning are also emphasized.

Department of Earth Science

Chair: Daniel Horns
Office: EN 115b
Telephone: 801-863-8582
E-mail: hornsda@uvsc.edu

Advisor: Daniel Horns

"Civilization exists by geologic consent, subject to change without notice."
- Will Durant

Durant's quote emphasizes our society's dependence on the Earth. The Earth provides the raw materials to build our cities; to provide the energy to fuel our industries, to power our cars, to heat our homes; and the soil and water to grow our crops. The Earth is also capable of dev-

astating individuals, towns, and whole regions through droughts, earthquakes, landslides, and other natural disasters. It is the job of the Earth scientist to understand Earth's history and active processes in order to make good use of Earth's resources and to avoid its hazards.

The Department of Earth Science provides a dynamic and creative learning environment to excite students' curiosity about the world around them. We help students to (1) trust science and understand how science works; (2) appreciate the various ways in which the Earth influences our lives and our society, and the ways in which our society impacts the Earth; and (3) recognize the many potential career paths within the Earth sciences and encourage motivated students to pursue those paths.

The Earth sciences include paleontology, geology, geophysics, meteorology, climatology, and oceanography. Professional Earth scientists include explorations geologists searching for oil, gas, and minerals, hazards geologists forecasting earthquakes and volcanic eruptions, seismologists helping builders design earthquake-safe structures, meteorologistS helping farmers anticipate drought, and hydrologists finding groundwater for growing cities. Over the past few decades, it has become clear that there are important relationships between the various branches of the Earth sciences. The most effective Earth scientist, regardless of area of specialty, is, therefore, someone who has a firm understanding of the entire Earth system. The courses and degree programs offered by the Department of Earth Science emphasize interactions between the various branches of the Earth sciences, provide a practical working knowledge of the material, and take advantage of Utah's incredible opportunities for field-based study.

Department of Mathematics

Chair: Christine Merrin
Office: LA 022d
Telephone: 801-863-8662
E-mail: merrinch@uvsc.edu

Advisor: Gary G. Carlson
Office: LA 022e
Telephone: 801-863-8606
E-mail: carlsoga@uvsc.edu

Advisor: Lynn Turnquist
Office: LA 022p
Telephone: 801-863-8803
E-mail: turnquly@uvsc.edu

The Mathematics faculty at Utah Valley State College is committed to providing students with a solid mathematical foundation that will support their subsequent course work and their careers. The faculty believes that math literacy is important for an informed society. The faculty is committed to this literacy and to providing excellent instruction for mathematics and related careers.

Department of Nursing

Department Chair: Gary Measom
Office: BA 205c
Telephone: 801-863-8192
E-mail: measomga@uvsc.edu

Associate Director: Lori Barber
Office: BA 205
Telephone: 801-863-8380
E-mail: barberlo@uvsc.edu

Advisor: Lynnae Marsing
Office: BA 205
Telephone: 801-863-8199
E-mail: marsinly@uvsc.edu

The mission of the Department of Nursing is to promote quality nursing education through a dynamic curriculum and to cultivate requisite knowledge, sound reasoning ability and a foundation for lifelong learning in students as they progress toward competent, compassionate graduates. The nursing major focuses on the knowledge, values and skills needed for practical nursing and registered nursing practice. Students gain experiences with individuals of all ages, as well as with families and communities, in a wide variety of settings.

Department of Physical Education and Recreation

Chair: Tom Perkins
Office: PE 147j
Telephone: 801-863-8676
E-mail: perkinto@uvsc.edu

Advisor: Jason Slack
Office: PE 147l
Telephone: 801-863-7488
E-mail: slackja@uvsc.edu
The mission of the Department of Physical Education and Recreation is to enhance a healthy lifestyle by promoting personal fitness and continued recreational pursuits. Course work and academic study are designed to emphasize the basics of lifetime fitness and recreational endeavors. The department and faculty are committed to the development of academic and field experience programs that will assist students in the achievement of their professional goals. The department is dedicated to providing learning opportunities to enhance the development of professional skills, leadership and abilities for continued student success.

Department of Physics

Chair: Brent Bargeron
Office: PS 207
Telephone: 801-863-6205
E-mail: bargerbr@uvsc.edu

Advisor: Phil Matheson
Office: PS 207
Telephone: 801-863-7161
E-mail: mathesph@uvsc.edu

Advisor: Al Benson
Office: PS 227
Telephone: 801-863-7497
E-mail: bensonal@uvsc.edu

Physics is the study of the laws of nature in their most fundamental form and is the basis for all other physical and engineering sciences. Physicists are valued for their versatility and problem solving skills. Progress in physics is at the heart of improvements in technology, solutions to environmental problems, and in understanding the universe around us.

Our mission at UVSC is to provide a versatile, evolving and flexible baccalaureate program that provides our students with a thorough grounding in principle while allowing them to develop the practical problem solving and research skills needed in industry, research and education. Our goal is to provide an environment where students are mentored individually by faculty, collaborate with their peers and gain confidence in their skills through meaningful course work and undergraduate research. Faculty strive to create new opportunities for students, through innovative coursework, and through their own individual research programs. Research provides a symbiotic process providing faculty with avenues of professional development and students with invaluable mentoring.

The physics department plays an integral role in many other programs on campus by providing a variety of service courses. Faculty and students are also encouraged to become involved in community improvement through fostering public science education and participating in community affairs.

Interdisciplinary Programs

Several academic programs span all or several of the Schools of the College. These programs, which operate within more than one School or across more than one School often have an interdisciplinary aspect to them. These special programs are enhancements to and enrichments of other existing programs explained within the Schools and departments in other descriptions in this catalog.

Students are invited and encouraged to take advantage of the opportunities to learn while on the job through Cooperative Education Program and courses; to learn at a more rigorous pace and/or depth and breadth of material through the classes in the Honors Program; and/or learn in more diverse areas than one School or department offers and obtain a Bachelor of Science or Arts Degree in the Integrated Studies Program.

VICE PRESIDENT FOR ACADEMIC AFFAIRS:
BRADLEY J. COOK

Office: BA 218
Telephone: 801-863-8951

Interdisciplinary or cross-discipline programs and opportunities are presented below:

The Center for the Study of Ethics

Director: David Keller
Office: LA 109
Telephone: 801-863-8455

The Center for the Study of Ethics enhances awareness of ethical issues through a variety of approaches to foundational, applied, and professional ethical dilemmas. The Center promotes the study of ethics throughout the curriculum. The community benefits from the Center through lectures, workshops, publications, and informal discussions.

Cooperative Education/Internship

School of Business contacts:

Accounting, Finance and Economics, and Business Management
John Wilson
Office: WB 257d, 801-863-6307

Business Management
Mikki O'Connor
Office: WB 257e, 801-863-8850

Hospitality Management and Legal Studies
Peggy K. Adams-Williams
Office: WB 257c, 801-863-8379

School of Computing, Engineering and Technology contacts:

Air Conditioning/Refrigeration Technology:
Dale Olson
Office: GT 606c, 801-863-8248
Apprenticeship
Ross Ford
Office: GB 102, 801-863-7950
Automotive Technology:
Orrin Nelson
Office: SA 320, 801-863-8243
Aviation:
Elizabeth Butler (Lower Division)
Office: Provo Municipal Airport, 801-863-7836
Tobyn DeGraw (Upper Division)
Office: Provo Municipal Airport, 801-863-7780
Building Construction and Construction Management:
Robert Dunn
Office: GT 615, 801-863-8249
Building Inspection Technology:
Fred Davis
Office: GT 615, 801-863-8861
Cabinetry and And Architectural Woodwork::
Kelly Baird
Office: GT 629, 801-863-8860
Collision Repair Technology:
Don Wilson
Office: SA 325b, 801-863-8360
Computer Information Technology and Education and Computer and Networking Sciences
Peggy K. Adams-Williams
Office: WB 257c, 801-863-8379
Other Departments: See Department Advisor
Diesel Technology:
Don Ray Nelson
Office: SA 317, 801-863-6320
Facilities:
Eric Linfield
Office: GT 613d, 801-863-8250
Global Aviation:
Claire Downing (Lower Division)
Office: Provo Municipal Airport, 801-863-7816
Ryan Tanner (Upper Division)
Office: Provo Municipal Airport, 801-863-7840
Fire Science:
See Department Advisor
Office: Provo Municipal Airport, 801-863-7753
Lineman Technology:
Max Christofferson
Office: GB 242, 801-863-7982
Technology Management:
Floyd Olson
Office: GT 616b, 801-863-8524
Welding Technology:
Lynn Baadsgaard
Office: GT 525, 801-863-81350

School of Education contacts:
Linda Benson
Office: EB 101, 801-863-8588

School of General Academics contacts:
College Success
Michael Jensen
Office: LA 209k, 801-863-7090

School of Humanities, Arts and Social Sciences contact:s:
Art and Visual Communication
Ken Ewell
Office: GT 603, 801-863-8341
Communication
Phil Gordon
Office: FA 727, 801-863-8186
English
Kate McPherson
Office: LA 114th, 801-863-8055
Theatre and Communication
James Arrington
Office: FA 708, 801-863-7157

School of Science and Health contact::
Jeanie Crane
Office: PS 212c, 801-863-8154

Bachelor of Science Minors

American Studies

Committee Chair: Rob Cousins

Office: LA 114n, 801-863-8571

Religious Studies

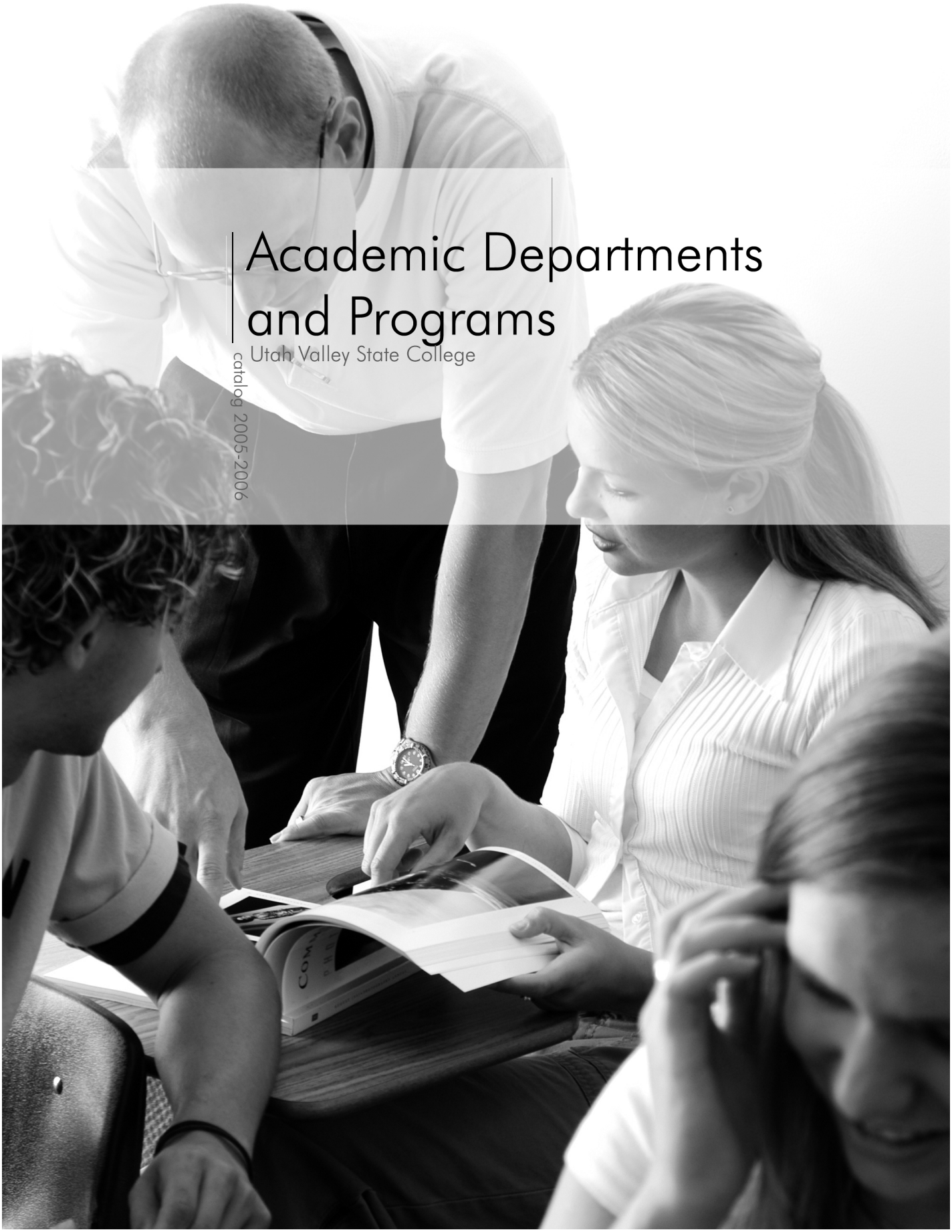
Committee Chair: Brian Birch

Office: LA 121, 801-863-8759

Academic Departments and Programs

Utah Valley State College

catalog 2005-2006



ACCOUNTING

Department Chair: Steve Johnson

Office: WB 136B
Telephone: 801-863-7186

Faculty:

Professor
- Ben Bean
- Dennis Greer
- Sheldon Smith
- Michael Stemkoski
- Steve Teeter

Associate Professor
- John Balden
- Richard Henage
- Steve Johnson

Assistant Professor
- Bunney Schmidt

Advisory Committee: Shane Edwards, CPA, (Chair), Partner, Squire & Company, CPA's; Layne Peterson, CPA, owner, Layne R. Peterson's; Dr. Clifford Skousen, CPA, Senior Associate Dean, College of Business, USU; Dr. Robert Gardner, CPA, Professor, Department of Accounting & Information Systems, BYU; Glen Twede, Controller, DHI Computing.

School of Business

Dean: James W. Fenton, Jr.
Office: WB 128
Telephone: 801-863-8260

Associate Dean: Janice Gygi
Office: WB 219
Telephone: 801-863-8863

Assistant Dean: Mikki O'Connor
Office: WB 129
Telephone: 801-863-8850

CAREER OPPORTUNITIES

According to the Department of Labor the employment of accountants and auditors is expected to grow about as fast as the average for all occupations through the year 2008. As the economy grows, the number of business establishments will increase, requiring more accountants and auditors to set up books, prepare taxes, and provide management advice. Although computers and accounting software will decrease the clerical need for accountants, there will be an ever increasing demand for accountants to provide management and consulting services.

Employment areas are numerous for accounting graduates. They include general accounting, payroll, bookkeeping, credit analysis, auditing, taxation, budgeting, cost analysis, controllership, treasurer, and chief financial officer. Opportunities are available in education, government, and industry.

PROGRAMS

Students in accounting may receive either a One-year Certificate, an Associate in Applied Science Degree, an Associate in Science Degree, or a Bachelor of Science Degree in Accounting. A Master of Business Administration Degree with an Accounting Emphasis, sponsored by Utah State University, is also available through the University Center.

ACCOUNTING CERTIFICATE — 30 CREDITS

Discipline Core Requirements:			**23 Credits**
• ACC	1150	Fundamentals of Business Math	3
• ACC	2010	Financial Accounting	3
• ACC	2020	Managerial Accounting	3
• ACC	2610	Accounting Systems Applications	3
• ISYS	1050	Basic Computer Applications	3
• ISYS	1080	10-key Data Entry	0.5
• MGMT	1010	Introduction to Business	3
• ENGL	1010	Introduction to Writing	3
• MGMT	2250	Job Application and Advancement Skills	1
or MGMT	3890	Career Preparation	2
• MGMT	295R	Executive Lecture Series	0.5
or MGMT	495R	Executive Lecture Series	1
Elective Requirements:			**7 Credits**
• School of Business (ACC, BUS, CJ, HM, LEGL, MGMT, ISYS prefixes)			7

Graduation Requirements:
1. Minimum of 30 credits required for a Certificate.
2. Overall GPA of 2.0 required for graduation with no grade lower than a "C-" in School of Business classes.

AAS IN ACCOUNTING — 64 CREDITS

General Education Requirements:			**16 Credits**
• MGMT	2200	Written Business Communication	3
• ACC	1150	Fundamentals of Business Math	3
• ENGL	1010	Introduction to Writing	3
• MGMT	3000	Organizational Behavior	3
or Any approved Behavioral Science, Social, or Political Science Distribution Course			
• Any approved Biology or Physical Science Distribution Course			3
• Any approved Physical Education, Health, Safety or Environment Course			1
Discipline Core Requirements:			**32 Credits**
• ACC	2010	Financial Accounting	3
• ACC	2020	Managerial Accounting	3
• ACC	2100	Payroll Accounting	3
• ACC	2610	Accounting Systems Applications	3
• ACC	3010	Intermediate Accounting I	3
• ACC	3020	Intermediate Accounting II	3
• ACC	3400	Individual Income Tax	3
• ISYS	1080	10-key Data Entry	0.5
• ISYS	1050	Basic Computer Applications*	3
or Business Computer Proficiency Exam*			
• ISYS	2360	Business Spreadsheet Applications	3
• MGMT	1010	Introduction to Business	3
• MGMT	2250	Job Application and Advancement Skills	1
or MGMT	3890	Career Preparation	2
• MGMT	295R	Executive Lecture Series	0.5
or MGMT	495R	Executive Lecture Series	1
Elective Requirements:			**16 Credits**
• School of Business (ACC, BUS, CJ, HM, LEGL, MGMT, ISYS prefixes)			16

Graduation Requirements:
1. Completion of a minimum of 64 semester credits
2. Overall grade point average of 2.0 or above with a 2.5 GPA in Business courses and a grade of "C-" or higher in all business courses.
3. Residency hours: Minimum of 20 credit hours through course attendance at UVSC 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.

AAS IN ACCOUNTING (CON'T) — 64 CREDITS

Note:
*Students will be required to complete the business computer proficiency exam with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher on each module.

AS PRE MAJOR IN ACCOUNTING — 61 CREDITS

General Education Requirements:			**36 Credits**
• 36 credits of minimum general education requirements with HUM 1010 recommended as the Humanities requirement and MATH 1050 or An Advanced Placement (AP) Mathematics Test with a score of 3 or higher as the Quantitative Reasoning requirement (see the graduation requirements in the General Education section of this catalog).			
Discipline Core Requirements:			**25 Credits**
• ACC	2010	Financial Accounting	3
• ACC	2020	Managerial Accounting	3
• MATH	1100	Introduction to Calculus	4
• MGMT	2020	Macroeconomics	3
• MGMT	2010	Microeconomics	3
• LEGL	3000	Business Law	3
• MGMT	2340	Business Statistical Applications	3
• ISYS	1050	Basic Computer Applications*	3
or Business Computer Proficiency Exam*			

Graduation Requirements:
1. Completion of a minimum of 61 semester credits.
2. Overall grade point average of 2.0 or above with a 2.5 GPA in Business courses. No grade below "C-" in Business courses.
3. Residency hours: Minimum of 20 credit hours through course attendance at UVSC with at least 12 credits of School of Business courses.
4. Completion of GE and specified departmental requirements.

Notes:
Students are responsible for completing all prerequisite courses.
*Students will be required to complete the business computer proficiency exam with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher.

BS IN ACCOUNTING — 120 CREDITS

General Education Requirements:			**36 Credits**
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	
or ENGL	2020	Intermediate Writing—Science and Technology	3
• MATH	1050	College Algebra	4
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	
and HIST	2710	US History since 1877	
• HIST	1700	American Civilization	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health & Wellness	
or PES	1097	Fitness for Life	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:			**56 Credits**
Business Foundation Courses:			
• ACC	2010	Financial Accounting	3
• ACC	2020	Managerial Accounting	3
• Business Computer Proficiency Exam**			
or ISYS	1050	Basic Computer Applications**	3
• MATH	1100	Introduction to Calculus	4
• MGMT	2200	Written Business Communication	3
• MGMT	2020	Macroeconomics	3
• MGMT	2010	Microeconomics	3
• MGMT	2340	Business Statistical Applications	3
Business Core Courses:			
• LEGL	3000	Business Law	3
• MGMT	3000	Organizational Behavior	3
or MGMT	3010	Principles of Management	
• MGMT	3100	Principles of Finance*	3
• MGMT	3300	Survey of International Business	3

BS IN ACCOUNTING (CON'T) 120 CREDITS

- MGMT 3450 Operations Management* 3
- MGMT 3600 Principles of Marketing 3
- MGMT 495R Executive Lecture Series 1

or MGMT 493R Entrepreneurship Lecture Series

Accounting Core Courses:

- ACC 3010 Intermediate Accounting I 3
- ACC 3020 Intermediate Accounting II 3
- ACC 3300 Cost Accounting 3
- ACC 3400 Individual Income Tax 3
- ACC 3510 Accounting Information Systems 3

Elective Requirements: 28 Credits

Complete at least 9 credit hours from the following classes: 9

- ACC 4020 Advanced Financial Accounting*
- ACC 4030 Governmental & Not-for-Profit Accounting*
- ACC 4110 Auditing*
- ACC 4300 Management Control*
- ACC 4400 Tax of Corp/Partnerships/Estates/Trusts*
- ACC 4510 Advanced Accounting Information Systems*

Complete 19 hours of elective credits at any level—not more than 11 credit hours can be from the following prefixes: HM, CJ, LEGL, ISYS, MGMT and/or ACC 341R.*** 19

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 2.0 or above with a minimum of 2.5 GPA in all 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 UVSC, 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.

Notes:

*Courses with an asterisk (*) cannot be taken until student is matriculated.

**Students will be required to complete the business computer proficiency exam with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher.

***At least 90 credit hours must be non-Accounting courses. At least 60 credit hours must be outside of business courses (economics and statistics courses can be included in this 60 credit hour requirement).

BA/BS IN INTEGRATED STUDIES 124 CREDITS

The following Integrated Studies emphasis is available (see the Integrated Studies section of this catalog for complete degree requirement listings):

- Accounting

MINOR IN ACCOUNTING 24 CREDITS

Matriculation Requirements:

1. Admitted to a bachelor degree program at UVSC.

Discipline Core Requirements: 12 Credits

- ACC 2010 Financial Accounting 3
- ACC 2020 Managerial Accounting 3
- ACC 3010 Intermediate Accounting I 3
- ACC 3020 Intermediate Accounting II 3

Elective Requirements: 12 Credits

Choose 12 credits from the following: 12

- ACC 3300 Cost Accounting
- ACC 3400 Individual Income Tax
- ACC 3510 Accounting Information Systems
- ACC 4110 Auditing*
- ACC 4400 Taxation of Corporations, Partnerships, Estates and Trusts*

Graduation Requirements:

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

Notes:

*Courses with an asterisk (*) cannot be taken until student is matriculated into a bachelor degree program.

Students are responsible for completing all prerequisite courses.

COOPERATIVE EDUCATION/ INTERNSHIP

A Cooperative Education or Internship course is highly recommended for majors. College credit is granted for paid work experience through the Coop/Internship Program. The department provides lower division Coop and upper division internship courses. Contact the Accounting Career and corporate manager, John Wilson 863-6307, for further information regarding Cooperative Education/Internship opportunities.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.

Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

ACC 1150 GM
Fundamentals of Business Math
3:3:0 Su, F, Sp

- Prerequisite: 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.

ACC 1750
Applied Accounting
4:4:0 Sp

- Prerequisite: ENGH 0990, CTRS 0900, and (MAT 0990 or ACC 1150)

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.

ACC 2010
Financial Accounting†
3:3:0 Su, F, Sp

- Prerequisite: ENGH 0990, CTRS 0900, and MAT 0990 or equivalent
- Corequisite: 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.

ACC 2020
Managerial Accounting
3:3:0 Su, F, Sp

- Prerequisite: ACC 2010

Covers methods and tools of generating information for decision making by managers within an organization. Includes determining the cost of products, services, and segments within the organization (job order and process costing, activity-based costing, and cost allocation), the planning role of management (cost behavior, cost-volume-profit analysis, short-term budgeting, and long term/capital budgeting), the control function of management (responsibility accounting, performance measurement and evaluation, and variance analysis), and current issues in management accounting. Integrates management decision making throughout the course.

ACC 2100
Payroll Accounting
3:3:0 F, Sp

- Prerequisite: ACC 2010

Designed for accounting majors and as elective credit for other business majors. Comprehensive coverage of payroll laws, calculations, registers, taxes, compliance, and accounting entries. Laboratory experiences include manual and automated payroll methods.

ACC 2610
Accounting Systems Applications
3:3:1 F, Sp

- Prerequisite: ACC 2010, ISYS 1050 or Computer Proficiency Exam

For second-year students pursuing a certificate, diploma, or degree in accounting. Reviews basic accounting and internal controls. Familiarizes students with Windows, computer hardware, Internet and E-mail. Includes Windows operating system, using popular accounting software (QuickBooks, Peachtree). Integrates accounting information with other software programs such as spreadsheets and word processing.

ACC 281R
Cooperative Work Experience
2-8:0:10-40 Su, F, Sp

- Prerequisite: Approval of School of Business Career and Corporate Manager
- Corequisite: MGMT 2250 or MGMT 4250 if first time

Designed for accounting majors to provide on-the-job work experience that will utilize the students 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.

ACC 3000
Financial, Managerial and Cost Accounting Concepts
4:4:0 Su, F, Sp
- Prerequisite: ENGL 2010 or ENGL 2020 and MAT 1010 or higher

Provide students in computer science and the technologies with knowledge of financial, managerial, and cost accounting concepts and applications. Prepares students to gain knowledge of accounting information systems and to utilize accounting information in making business decisions.

ACC 3010
Intermediate Accounting I
3:3:0 Su, F, Sp
- Prerequisite: ACC 2010 and ACC 2020

Includes the conceptual framework of accounting; review of the accounting process; review of accounting statements including the income statement, balance sheet, and statement of cash flows; in-depth coverage of operating activities, financing activities, and investing activities.

ACC 3020
Intermediate Accounting II
3:3:0 Su, F, Sp
- Prerequisite: ACC 3010

Includes revenue recognition, long-term assets, accounting for leases, deferred income taxes, employee compensation (payroll and pensions), contingencies, earnings per share, accounting changes and error corrections, and analysis of financial statements.

ACC 3300
Cost Accounting
3:3:0 Su, F, Sp
- Prerequisite: ACC 2020

Provides a strategic approach to cost management and illustrates how accounting adds value to an organization. Provides training in determining the cost of products, organization segments, and customers. Costing techniques include job order and process costing, activity-based costing, joint-product costing, and cost allocation. Studies how costs are used for decision-making purposes.

ACC 3400
Individual Income Tax
3:3:0 Su, F, Sp
- Prerequisite: ACC 2010

Studies federal and state individual income tax. Teaches practical applications of income tax laws and regulations. Researches sources of tax law through the use of electronic medium. Uses computers for preparation of individual income tax returns. Successful completers should be qualified to prepare their own tax returns as well as simple tax returns for others.

ACC 341R
Tax Return Preparation†
1:0.5:2 Sp
- Prerequisite: Instructor Approval

Teaches students to prepare simple federal and state income tax returns and provides opportunities for practical application and service learning through participation in the Income Tax Clinic. May apply a maximum of 3 credits toward graduation. Will be graded credit/no credit.

ACC 3510
Accounting Information Systems
3:3:0 Su, F, Sp
- Prerequisite: ACC 3020 and ISYS 1050 or business computer proficiency exam

Teaches analysis design and implementation of accounting information systems. Emphasizes accounting cycles, internal controls, and computerized environments.

ACC 3800 (Cross-listed as LEGL 3800)
Fraud Examination
3:3:0 Sp
- Prerequisite: ACC 2010 and ACC 2020

Introduces accounting and business students to the seriousness of fraud and its impact on business and society. Examines the elements of fraud, detection, prevention, and resolution.

ACC 4020
Advanced Financial Accounting
3:3:0 Su, F, Sp
- Prerequisite: ACC 3020 and Matriculation into the Bachelor Degree Program

Presents accounting concepts and methods for business combinations, foreign currency, transactions, foreign statement translation, and partnerships.

ACC 4030
Governmental and Not-For-Profit Accounting
3:3:0 Su, F, Sp
- Prerequisite: ACC 3020 and Matriculation into the Bachelor's Degree Program

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.

ACC 4110
Auditing
3:3:0 Su, F, Sp
- Prerequisite: ACC 3020 and ACC 3300 and Matriculation into the Bachelor Degree Program

Teaches auditing concepts and procedures covering examination of financial statements, internal control, disclosure, statistical sampling concepts, and EDP auditing techniques.

ACC 4300
Management Control
3:3:0 Sp
- Prerequisite: ACC 3300, MGMT 3000 and Matriculation into the Bachelor Degree Program

Covers the management control environment and the structure of management control systems (responsibility center, transfer pricing, and measuring/controlling assets). Addresses the management control process (strategic planning, budgeting, performance measurement and analyzing operational and financial performance, and management compensation). Discusses variations in management control (controls for differentiated strategies, service organizations, and multinational organizations).

ACC 4400
Taxation of Corporations, Partnerships, Estates & Trusts
3:3:0 Su, F, Sp
- Prerequisite: ACC 3400 and Matriculation into the Bachelor Degree Program

For accounting majors and other business students. Studies federal and state taxation of corporations, S-corporations, partnerships, estates, and trusts. Teaches practical application of income tax laws and regulations. Researches source of tax law through the use of electronic medium. Uses computers for preparation of tax returns. Successful completers should be qualified to prepare federal and state tax returns for small businesses, estates, and trusts.

ACC 4510
Advanced Accounting Information Systems
3:3:0 Sp
- Prerequisite: ACC 3510 and Matriculation into the Bachelor Degree Program

Focuses on the integration of database design skills and accounting information systems design skills. Covers designing database systems to track accounting transactions through the various transaction cycles. Includes internal control design, fraud detection, and computerized auditing. Project-based course.

ACC 470R
Current Topics in Accounting
1-3:1-3:0 On Sufficient Demand
- Prerequisite: Department Chair approval

Course varies from semester to semester. Provides opportunities for students to become exposed to emerging technology and topics of current interest and demand in Accounting. Repeatable for a maximum of 3 credits toward graduation.

ACC 481R
Internship
2-8:0:10-40 Su, F, Sp
- Prerequisite: Approval of School of Business Career and Corporate Manager
- Corequisite: MGMT 3890 if first time

For upper-division students in accounting. 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.

ACC 4870
International Accounting
3:3:0 On Sufficient Demand
- Prerequisite: ACC 3020, all international business courses, Senior standing and Matriculation into Business Management degree program

For accounting majors and other interested students. Examines accounting functions from an international perspective. Focuses on flow of information in multiple currencies, complying with reporting requirements in the U.S. and

abroad. Studies setting budgets and monitoring performance and controlling the use of corporate assets through reports and audits. Successful completers should have a thorough knowledge of organizational structure and services provided by large public accounting firms with international clients.

ACC 4880
Accounting Policy
3:3:0 F, Sp
• Prerequisite: ACC 3020 and Matriculation into the Bachelor Degree Program
A capstone course for accounting majors. Integrates economics, finance and management, financial accounting and reporting, analysis and behavior issues, operational auditing/internal control, research (FASB), decision analysis, and information systems. Prepares students for the dynamic role that management accountants and financial managers play in business, public, and governmental accounting.

ACC 4890
CMA Review
3:3:0 On Sufficient Demand
• Prerequisite: ACC 3020 and 3300
A preparatory course for taking the CMA (Certified Management Accountant) exam. Covers all four parts of the exam. Part 1: Economics, Finance and Management; Part 2: Financial Accounting and Reporting; Part 3: Management Reporting, Analysis, and Behavioral Issues; Part 4: Decision Analysis and Information Systems. Prepares students for exam given in June and December.

ACC 490R
Accounting Seminar
1-3:1-3:0-9 On Sufficient Demand
• Prerequisite: Department Chair approval
Designed to provide short courses, workshops, and special programs on accounting-related topics. Repeatable up to 3 credits toward graduation.

ACC 491R
Independent Study
1-4:0-4:0-12 On Sufficient Demand
• Prerequisite: Department Chair approval
For bachelor degree students and other interested persons. Offers independent study as directed in reading, individual projects, etc., at the discretion and approval of the department chairperson. Repeatable up to three credits toward graduation.

AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

Department Chair/Program Coordinator:
Steve Fordham

Office: GT 616c
Telephone: 801-863-8167

Faculty:
Associate Professor
Steve Fordham
Dale Olson

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Advisory Committee: Dean Gunther, Gunther's Comfort Air; Gary Wadsworth, RSD Total Control; Scott Woffinden, Cobalt Refrigeration; Dan Dearden, Trane Company; Harvey Liston, Canyon Park Management Company; Keith Sabin, UVSC Central Plant.

School of Computing, Engineering and Technology

Dean: Thomas McFarland
Office: CS 720b
Telephone: 801-863-8995

CAREER OPPORTUNITIES

Students who earn a degree in Air Conditioning and Refrigeration Technology (ACRT) may choose from a wide variety of work applications. Throughout the country, the industry as a whole is facing a shortage of qualified service personnel. A graduate may do specialty work in areas such as supermarket refrigeration, manufacturing process cooling, industrial air conditioning, transport refrigeration, building maintenance, controls, or installation and repair of residential air conditioning and heating equipment. Virtually anywhere that you find food or people you will find a need for heating, ventilation, refrigeration and air conditioning.

EPA laws and the increased use of computers have significantly increased the demand for highly trained technicians. This increased demand has resulted in significant wage increases in the past few years. The rapidly expanding industry with its new technologies provides many new job opportunities as well as opportunities for advancement within specific organizations.

The industry encourages personal development. Entry-level technicians may move into other areas of the industry such as installation, service, sales, estimating, design or wholesale operations for various-sized firms.

Many ACRT personnel eventually open their own businesses. Refrigeration and air conditioning personnel are necessary in almost any place people reside or work. All Technical Specialty courses must be completed with a "C-" grade or better.

PROGRAMS

Two options are available: Associate in Applied Science Degree and the Bachelor of Science in Technology Management Degree.

Reminder: an overall grade point average of 2.0 "C" or above is required for graduation.

AAS IN AIR CONDITIONING AND REFRIGERATION TECHNOLOGY — 69 CREDITS

General Education Requirements:			16 Credits
• ACRT	1120	Special Refrigeration Mathematics	3
• ENGL	1060	Career Writing for Technology	3
or ENGL	1010	Introduction to Writing	
• Biology/Physical Science			3
• Health/PE/Safety environment			1
• Humanities/Fine Arts/Foreign Language			3
• Social/Behavioral Science			3
Discipline Core Requirements:			53 Credits
• ACRT	1110	Refrigeration I	10
• ACRT	1210	Refrigeration II	9
• ACRT	1220	Basic Electricity & Motor Controls	5
• ACRT	2310	Commercial Refrigeration	9
• ACRT	2320	Motors, Controls, and Wiring Diagrams	5
• ACRT	2330	Sheet Metal Layout	1
• ACRT	2410	Commercial Refrigeration, Heating and Air Conditioning	9
• ACRT	2420	Heating and Air Conditioning Controls	5

Graduation Requirements:
1. Completion of a minimum of 69 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 UVSC
4. Completion of GE and specified departmental requirements
5. Complete all Technical Specialty courses with a minimum grade of "C-" or better.

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Air Conditioning and Refrigeration Technology

Specialty Core Requirements:			47 Credits
• ACRT	1110	Refrigeration I	10
• ACRT	1210	Refrigeration II	9
• ACRT	1220	Basic Electricity and Motor Controls	5
• ACRT	2310	Commercial Refrigeration	9
• ACRT	2320	Motors, Controls and Wiring Diagrams	5
• ACRT	2410	Commercial Refrigeration, Heating and Air Conditioning	9

NOTES:
No upper division Technology Management (i.e. Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

Due to the technical nature of the material in ACRT courses, additional reading and math instruction may be required. More information will be given during advisement.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

ACRT 1000
Survey of Air Conditioning and Refrigeration
1:1:0 On Sufficient Demand
An introductory course which allows students to explore the opportunities available in the challenging and rewarding fields of Air Conditioning, Refrigeration, Heating, and Sheet Metal work. Covers theories, physics, and principles of various refrigeration and air conditioning systems. Includes hands-on practice with flaring and welding copper tubing.

ACRT 1110
Refrigeration I
10:5:15 F
For entry level Refrigeration majors, students interested in exploring the Refrigeration and Air Conditioning industry, and those desiring vocational credit for the AS degree. Covers theory, physics, principles of operation, and installation procedures of refrigeration systems. Practices overhauling and servicing compressors. Provides practical experience in assembly, disassembly, service, and repair, with extensive practice in working with tubing, fittings, and metering devices. Includes lab. Safety principles and practices are emphasized.

ACRT 111A
Refrigeration I
5:2.5:7.5 F
For entry level Refrigeration majors, students interested in exploring the Refrigeration and Air Conditioning industry, and those desiring vocational credit for the AS degree. Covers half of ACRT 1110. Covers theory, physics, principles of operation, and installation procedures of refrigeration systems. Practices overhauling and servicing compressors. Provides practical experience in assembly, disassembly, service, and repair, with extensive practice in working with tubing, fitting, and metering devices. Includes lab. Emphasizes safety principles and practices.

ACRT 111B
Refrigeration I
5:2.5:7.5 Sp
For entry level Refrigeration majors, students interested in exploring the Refrigeration and Air Conditioning industry, and those desiring vocational credit for the AS degree. Covers half of

ACRT 1110. Covers theory, physics, principles of operation, and installation procedures of refrigeration systems. Practices overhauling and servicing compressors. Provides practical experience in assembly, disassembly, service, and repair, with extensive practice in working with tubing, fitting, and metering devices. Includes lab. Emphasizes safety principles and practices.

ACRT 1120
Special Refrigeration Mathematics
3:3:0 F
For entry level Refrigeration majors. Runs concurrently with ACRT 1110. Solves math-based problems in air conditioning and refrigeration. Deals with pressure and temperature of gases. Covers physics pertaining to the refrigeration field. Emphasizes calculation of mechanical drivers, compressor capacity and heat load. Gives opportunities to work with psychometric charts and Mollier diagrams.

ACRT 1210
Refrigeration II
9:4:15 Sp
For second semester Refrigeration majors and interested Refrigeration and Air Conditioning service personnel desiring skill upgrading. Runs concurrently with ACRT 1220. Covers additional theory and practice in assembly, installation, service, and repair of refrigeration units, including domestic refrigerators and freezers. Emphasizes installation, operation, and testing of pressure regulating maintenance. Completers may gain entry-level employment in the domestic repair industry.

ACRT 121A
Refrigeration II
4.5:2:7.5 F
For second semester Refrigeration majors and interested Refrigeration and Air Conditioning service personnel desiring skill upgrading. Runs concurrently with ACRT 1220. Covers half of ACRT 1210. Covers additional theory and practice in assembly, installation, service and repair of refrigeration units, including domestic refrigerators and freezers. Emphasizes installation, operation, and testing of pressure regulating maintenance. Completers may gain entry-level employment in the domestic repair industry.

ACRT 121B
Refrigeration II
4.5:2:7.5 Sp
For second semester Refrigeration majors and interested Refrigeration and Air Conditioning service personnel desiring skill upgrading. Runs concurrently with ACRT 1220. Covers half of ACRT 1210. Covers additional theory and practice in assembly, installation, service and repair of refrigeration units, including domestic refrigerators and freezers. Emphasizes installation, operation, and testing of pressure regulating maintenance. Completers may gain entry-level employment in the domestic repair industry.

ACRT 1220
Basic Electricity and Motor Controls
5:5:1 Sp
For second semester Refrigeration majors and interested Refrigeration and Air Conditioning service personnel desiring skill upgrading. Runs concurrently with ACRT 1210. Oriented to the refrigeration industry. Covers basic AC and DC electrical theory. Explains magnetism, induction, and generation of electricity. Covers Ohm's Law. Includes hands-on experience with motors and controls. Includes theory and practice in electrical wiring according to the National Electrical Code. Emphasizes safety principles and practices.

ACRT 2310
Commercial Refrigeration
9:4:15 F
• Prerequisite: ACRT 1110, ACRT 1210 or equivalent
For third semester Air Conditioning and Refrigeration Technology majors and those interested in upgrading commercial refrigeration skills. Covers various types of current commercial refrigeration systems and controls. Includes theory and lab experience in installing, operating, servicing, and trouble shooting equipment. Emphasizes electrical and electronic controls that are used on these systems.

ACRT 2320
Motors—Controls and Wiring Diagrams
5:5:0 F
For Refrigeration and Air Conditioning Technology majors and interested community members. Studies electric motor theory, electrical schematic diagrams and controls for refrigeration, heating, and cooling systems. Covers characteristics and uses of electric motors for refrigeration, heating and cooling systems. Emphasizes reading electrical symbols and wiring diagrams for heat pumps, gas heat systems, and cooling controls. Stresses safety practices. Should be taken concurrently with ACRT 2310.

ACRT 2330
Sheet Metal Layout
1:0:3 F
For heating, ventilation, and air conditioning students. Includes hands-on experience in layout, fabrication, and assembly of sheet metal ducts. Students will also become acquainted with sheet metal hand tools, equipment, and safe usage. Practice is given in geometric drawings.

ACRT 2410
Commercial Refrigeration Heating and Air Conditioning
9:4:15 Sp
• Prerequisite: ACRT 2310
For advanced Refrigeration and Air Conditioning Technology majors. Studies processes and techniques in the commercial refrigeration, heating, ventilating. and air conditioning field. Special emphasis is placed on troubleshooting electrical and mechanical problems. Includes theory and lab work. Covers start-up, preventative maintenance, service, repair and installation of gas systems, heat pumps and electric heat for residential and light commercial applications. With departmental approval, students may be eligible for cooperative work experience.

ACRT 2420
Heating and Air Conditioning Controls
5:5:0 Sp
• Prerequisite: ACRT 2320
Runs concurrently with ACRT 2410. For advanced Air Conditioning and Refrigeration Technology majors, as well as those interested in heating, ventilating, and air conditioning. Studies primary and safety controls for electric motors: gas, hot water, and electric heating, air conditioning, and humidifying. Covers modulating motors and controls for air handling. Electrical, mechanical, electronic, and pneumatic controls will be emphasized. Safety standards of ARI/GAMA gas manufacturers will be followed.

ACRT 281R
Cooperative Work Experience
1-8:0:5-40 F, Sp
• Corequisite: ACRT 285R the first time only
For Air Conditioning and Refrigeration 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 evaluation, on-site work visits, written assignments, and oral presentations. Provides experience in writing and completing individualized work objectives that improve present work performance.

ACRT 285R
Cooperative Correlated Class
1:1:0 F, Sp
• Corequisite: ACRT 281R the first time only
For Air Conditioning and Refrigeration 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.

ACRT 299R
VICA
1:1:0 Sp
For Air Conditioning and Refrigeration 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.

APPRENTICESHIP

Director: Ross Ford

Office: Geneva Building (GB 102)
1410 West 1250 South (Business Park Drive)
Telephone: 801-863-7950

Office Manager/Advisor: Camaree Staheli

Office: Geneva Building (GB 104)
Telephone: 801-863-7950

The Apprenticeship Programs administrative offices are located in the Geneva Building, 1410 West Business Park Dr., Orem, Utah

School of Computing, Engineering and Technology

Dean: Tom McFarland
Office: CS 720b
Telephone: 801-863-8995

Utah Valley State College, through the School of Technology, Trades and Industry, provides apprentices related theoretical instruction in structured classes.

Apprenticeship programs are composed of two parts: (1) on-the-job training and (2) classroom instruction. On-the-job training is provided by a sponsor who exposes the apprentice to practical applications in all phases of a particular craft. The classroom related instruction is an organized and systematic form of instruction designed to provide the apprentice with knowledge of the theoretical and technical aspects of his or her craft. Total completion of an apprenticeship program will take from two to five years, depending upon the craft.

The College neither provides on-the-job training nor acts as program sponsor for apprentices. Individuals must locate their own program sponsors.

New apprenticeship classes, with a minimum of 15 students, can be offered on request from the community, business, and industry. For additional information on apprenticeship classes, contact the Apprenticeship Office.

Apprentice classes cannot be taken for audit without departmental approval.

REGISTRATION REQUIREMENTS

New Apprentices:

1. Submit Application for Admission to College Admissions Office (check APPR as your declared major).
2. Complete new Student Assessment Test with scores as follows:
   - DPR Score of 61 or better
   - Numerical Skill Score of 39 or better and/or Compass Pre-Algebra Score of 41 or better (Electricians need an algebra score of 58 or better)

   or

   Complete the APPR 1300 (Apprenticeship Math) with a "C" grade or higher.

   or

   Complete college level mathematics class with a grade of C or better within the last three years.

   or

   Complete ACT test with a score of 19 or better in mathematics within the last three years.
3. Verify commitment to attend all class sessions, complete all homework assignments, complete all quizzes, and pass a comprehensive final examination for each class.
4. Commitment by the employer to allow class attendance.

The above will need to be completed by new apprentices before approval will be granted to register for any apprentice class. It is strongly advised that these matters are taken care of well in advance of the start of class.

If above requirements are met, contact the Apprenticeship office to schedule an interview prior to registration.

PROGRAMS

Most apprenticeship programs may lead to an Associate in Applied Science Degree in the related area. A Bachelor of Science in Technology Management Degree is available for most apprenticeship programs

It is recommended that all students take the ACT, SAT or the COMPASS testing and meet minimum score requirements. It is required that all students seeking an AAS or BSTM Degree complete one of the prescribed tests. Students who choose to earn an AAS or BSTM Degree are required to complete their indentured apprenticeship programs. Electricians and plumbers are also required to demonstrate that they have passed the state of Utah Journeyman Exam. In addition to this, all students must complete applicable General Education classes.

Reminder: an overall grade point average of 2.0 (C) or above is required for graduation.

AAS IN APPRENTICE — 64 CREDITS MIN.

General Education Requirements:	16 Credits
ENGLISH	2
• ENGL 1060 Career Writing for Technology	
• Any higher English course	
MATHEMATICS	2
• MAT 1010 Intermediate Algebra	
• Any higher Mathematics Course	
• Any approved Departmental Mathematics Course	
HUMANITIES/FINE ARTS/FOREIGN LANGUAGE	2
• PHIL 2050 Ethics and Values (highly recommended)	
• Any approved Humanities, Fine Arts, or Foreign Language Distribution Course	
SOCIAL AND BEHAVIORAL SCIENCE	2
• MGMT 3000 Organizational Behavior	
• Any approved Behavioral Science, Social, or Political Science Distribution Course	
BIOLOGY OR PHYSICAL SCIENCE	2
• PHYS 1810 Principles of Technology I	
• PHYS 1820 Principles of Technology II	

AAS IN APPRENTICE (CON'T) — 64 CREDITS MIN.

• Any approved Biology or Physical Science Distribution Course	
PHYSICAL EDUCATION/HEALTH/SAFETY OR ENVIRONMENT	1
• Any approved Physical Education, Health, Safety or Environment Course	
ADDITIONAL CREDITS FROM ANY OF THE ABOVE	5
Specialty Core Requirements:	Credits Vary
Complete ONE of the following emphases (detail listed below):	
• Aircraft Mechanic	48
• Carpenter Union (JATC)	48
• Diesel Mechanics	48.5
• Electrical Construction	48
• Electrical Union (JATC)	50
• Heating, Ventilation and Air Conditioning	48
• Industrial Maintenance	48
• Lineman	48
• Lineman Meter	48
• Lineman Substation	48
• Plumber	48
• Sheet Metal	48

Graduation Requirements:

1. Completion of a minimum of 64-66 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 UVSC.
4. Completion of GE and specified departmental requirements.

Aircraft Mechanic Apprentice

Specialty Core Requirements:			48 Credits
• AVSC	1310	AMT Procedures and Practices (a)	5
• AVSC	1320	AMT General Knowledge (a)	5
• AVSC	1330	AMT Airframe Phase I (b)	5
• AVSC	1340	AMT Powerplant Phase I (b)	5
• AVSC	2210	AMT Airframe Phase II (c)	5
• AVSC	2220	AMT Airframe Phase III (d)	5
• AVSC	2230	AMT Powerplant Phase II (c)	5
• AVSC	2240	AMT Powerplant Phase III (d)	5
• AVSC	281R	Cooperative Work Experience	7
• AVSC	285R	Cooperative Related Class	1

NOTES:
The Airframe and Powerplant (A&P) Aircraft Mechanic program is a 3-year apprenticeship program with formal course work offered by the UVSC Aviation Science program in coordination with Apprenticeship services.
Apprentices need to be employed by an airline, fixed base operator (FABO), or the military in a related occupation which offers aircraft mechanic experience on the job. Formal classroom training to Federal Aviation Agency Standards is offered by the Aviation program via distance learning.

Carpenter Union Apprentice (JATC)

Specialty Core Requirements:			45 Credits
• APPR	1800	Carpenter Apprentice 1A	5
• APPR	1810	Carpenter Apprentice 1B	5
• APPR	1820	Carpenter Apprentice 2A	5
• APPR	1830	Carpenter Apprentice 2B	5
• APPR	1840	Carpenter Apprentice 3A	5
• APPR	1850	Carpenter Apprentice 3B	5
• APPR	1860	Carpenter Apprentice 4A	5
• APPR	1870	Carpenter Apprentice 4B	5
• BCCM	281R	Cooperative Work Experience	4
• BCCM	285R	Cooperative Correlated Class	1

Diesel Mechanic Apprentice

Specialty Core Requirements:			48.5 Credits
• DMT	1010	Diesel Apprentice (Electrical) 1A	5
• DMT	1020	Diesel Apprentice (Engine Overhaul) 1B	5
• DMT	1030	Diesel Apprentice (Governor Systems) 2A	3.5
• DMT	1040	Diesel Apprentice (Engine Controls) 2B	3.5
• DMT	1050	Diesel Apprentice (Engine Diagnostics and Air Conditioning) 2C	3.5
• DMT	1060	Diesel Apprentice (Fluid Power) 3A	5
• DMT	1070	Diesel Apprentice (Power Transmission) 3B	5
• DMT	1080	Diesel Apprentice (Chassis) 4A	5
• DMT	1090	Diesel Apprentice (Power Trains) 4B	5
• APPR	281R	Cooperative Work Experience	7
• APPR	285R	Cooperative Correlated Class	1

NOTES:

AAS IN APPRENTICE (CON'T) 64 CREDITS MIN.

The Diesel Mechanic Technology program is a 4-year apprenticeship with formal course work offered by UVSC Diesel Technology program (see Diesel Mechanics Technology for details on specific classes.
Diesel Apprentices need to be employed in a related occupation which offers on-the-job training on engines, automatic transmissions, drive trains, electrical systems, suspension and steering, hydraulics, and air systems. Such work may be on heavy equipment, farm equipment, and on-highway trucks. Apprentices receive formal training in all of the above, which prepares them to diagnose, repair, weld, and fine-tune the working parts of buses, trucks, construction machinery, and generators.
Please call the Apprentice office for details on class scheduling.

Electrical Construction Apprentice

Specialty Core Requirements:			48 Credits
• APPR	281R	Cooperative Work Experience	7
• APPR	285R	Cooperative Correlated Class	1
• EART	1110	Electrical Apprentice 1A	5
• EART	1120	Electrical Apprentice 1B	5
• EART	1210	Electrical Apprentice 2A	5
• EART	1220	Electrical Apprentice 2B	5
• EART	2310	Electrical Apprentice 3A	5
• EART	2320	Electrical Apprentice 3B	5
• EART	2410	Electrical Apprentice 4A	5
• EART	2420	Electrical Apprentice 4B	5

NOTE:
The Construction Electrician is a compulsory licensed craftsman who plans, lays out and installs, alters or repairs electrical wiring, fixtures, apparatus and controls.
Educational suggestions for high school subjects include basic mathematics, geometry, algebra, physics, welding, wood shop, blue print reading, and mechanical drawing.

Electrical Union Apprentice (JATC)

Specialty Core Requirements:			50 Credits
• EART	1300	Electrical Union Apprentice 1A	5
• EART	1310	Electrical Union Apprentice 1B	5
• EART	1320	Electrical Union Apprentice 2A	5
• EART	1330	Electrical Union Apprentice 2B	5
• EART	2330	Electrical Union Apprentice 3A	5
• EART	2340	Electrical Union Apprentice 3B	5
• EART	2350	Electrical Union Apprentice 4A	5
• EART	2360	Electrical Union Apprentice 4B	5
• EART	2370	Electrical Union Apprentice 5A	5
• EART	2380	Electrical Union Apprentice 5B	5

NOTE:
The Electrical Union Apprenticeship program is a four-year program which is offered through the Electrical JATC. Classes are conducted at UVSC.

Heating, Ventilation and Air Conditioning Apprentice

Specialty Core Requirements:			48 Credits
• ACRT	281R	Cooperative Work Experience	7
• ACRT	285R	Cooperative Correlated Class	1
• HVAC	1130	HVAC 1B	5
• HVAC	1150	HVAC 2B	5
• HVAC	1170	HVAC 3B	5
• HVAC	1190	HVAC 4B	5
• HVAC	1200	HVAC 1A	5
• HVAC	1220	HVAC 2A	5
• HVAC	2200	HVAC 3A	5
• HVAC	2220	HVAC 4A	5

NOTE
The Heating, Ventilation, and Air Conditioning (HVAC) apprenticeship program is a four-year program that combines on-the-job work experience with class room instruction to prepare HVAC technicians for working in the field at the Journeyman level. Apprentices are given training in service, installation, safety and code requirements.

Industrial Maintenance Apprentice

Specialty Core Requirements:			48 Credits
Complete the following:			
• APPR	281R	Cooperative Work Experience	7
• APPR	285R	Cooperative Correlated Class	1
• DMT	1400	Industrial Maintenance 1A	5
• DMT	1410	Industrial Maintenance 1B	5
• DMT	1430	Industrial Maintenance 2B	5
• EART	1010	Industrial Maintenance 2A	5
Complete 10 credits from the following:			10
• DMT	1440	Industrial Maintenance 3B	
• MET	1400	Industrial Maintenance 3A	
• WELD	1300	Industrial Maintenance 3C	
• WELD	1350	Industrial Maintenance 3D	
Complete 10 credits from the following:			10
• EART	1020	Industrial Maintenance 4A	
• HVAC	1110	Industrial Maintenance 4D	
• WELD	1310	Industrial Maintenance 4B	
• WELD	1320	Industrial Maintenance 4C	

NOTE:
The Industrial Maintenance apprenticeship program is a four-year program that combines on-the-job work experience with classroom instruction to prepare the Industrial Maintenance apprentices for working in the field at the Journeyman level.

Lineman Apprentice

Specialty Core Requirements:			48 Credits
• LINE	1010	Lineman Apprentice 1A	6
• LINE	1020	Lineman Apprentice 1B	6
• LINE	1030	Lineman Apprentice 2A	6
• LINE	1040	Lineman Apprentice 2B	6
• LINE	2010	Lineman Apprentice 3A	6
• LINE	2020	Lineman Apprentice 3B	6
• LINE	2030	Lineman Apprentice 4A	6
• LINE	2040	Lineman Apprentice 4B	6

NOTE:
The lineman apprentice courses are offered for lineman apprentices to complete the Federal Bureau of Apprentice and Training related instruction requirements. The lineman apprentice courses may substitute for a portion of the Lineman Technology program requirements for an AAS degree.

Lineman Meter Apprentice

Specialty Core Requirements:			48 Credits
• LINE	1600	Meter Apprentice 1A	6
• LINE	1610	Meter Apprentice 1B	6
• LINE	1620	Meter Apprentice 2A	6
• LINE	1630	Meter Apprentice 2B	6
• LINE	2600	Meter Apprentice 3A	6
• LINE	2610	Meter Apprentice 3B	6
• LINE	2620	Meter Apprentice 4A	6
• LINE	2630	Meter Apprentice 4B	6

NOTE:
Courses offered for lineman meter apprentice to complete the Federal Bureau of Apprenticeship Related instruction requirement.

Lineman Substation Apprentice

Specialty Core Requirements:			48 Credits
• LINE	1500	Lineman Substation Apprentice 1A	6
• LINE	1510	Lineman Substation Apprentice 1B	6
• LINE	1520	Lineman Substation Apprentice 2A	6
• LINE	1530	Lineman Substation Apprentice 2B	6
• LINE	2500	Lineman Substation Apprentice 3A	6
• LINE	2510	Lineman Substation Apprentice 3B	6
• LINE	2520	Lineman Substation Apprentice 4A	6
• LINE	2530	Lineman Substation Apprentice 4B	6

NOTE:
The lineman substation apprentice courses are offered for lineman substation apprentices to complete the Federal Bureau of Apprentice and Training related instruction requirements.

Plumber Apprentice

Specialty Core Requirements:			48 Credits
• APPR	1410	Plumbing Independent 1A	5
• APPR	1420	Plumbing Independent 1B	5
• APPR	1430	Plumbing Independent 2A	5
• APPR	1440	Plumbing Independent 2B	5
• APPR	1450	Plumbing Independent 3A	5
• APPR	1470	Plumbing Independent 4A	5
• APPR	1480	Plumbing Independent 4B	5
• BCCM	281R	Cooperative Work Experience	4
• BCCM	285R	Cooperative Correlated Class	1

NOTES:
Plumbing is a compulsory licensed trade where the plumber performs any mechanical work in the installation, maintenance, repair, removal and replacement of water supply and water/liquid waste removal. Plumbers do both interior and exterior work in greatly varying job conditions.
Education suggestions for high school subjects include basic mathematics, geometry, algebra, physics, welding, wood shop, blueprint reading, and mechanical drawing.
The Independent Plumbing program requires 576 hours of related training and 8,000 hours of on-the-job training. Upon completion of these requirements students will be eligible to sit for the Utah State Plumbers Journeyman Examination.

Sheet Metal Apprentice

Specialty Core Requirements:			48 Credits
• APPR	1110	Sheet Metal 1A	6
• APPR	1120	Sheet Metal 1B	6
• APPR	1210	Sheet Metal 2A	6
• APPR	1220	Sheet Metal 2B	6
• APPR	2310	Sheet Metal 3A	6
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BS IN TECHNOLOGY MANAGEMENT 124 CREDITS

The following Technology Management emphasis is available (see the Technology Management section of this catalog for complete degree requirement listings).

- Apprentice: Carpenter Union (JATC)
- Apprentice: Electrical Construction
- Apprentice: Electrical Union (JATC)
- Apprentice: Heat, Ventilation and Air Conditioning
- Apprentice: Industrial Maintenance
- Apprentice: Lineman
- Apprentice: Lineman Meter
- Apprentice: Lineman Substation
- Apprentice: Plumber
- Apprentice: Sheet Metal

NOTES:
No upper division Technology Management (i.e. Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

APPR 1110
Sheet Metal 1A
6:6:0 **F**

Completers will obtain American Red Cross CPR/First Aid Certification. Introduces Sheet Metal trade and its history. Teaches the safe operation of hand and power sheet metal tools and machinery. Covers basic drafting and layout techniques and construct sheet metal seams to blueprint specification.

APPR 1120
Sheet Metal 1B
6:6:0 **Sp**

Introduces parallel line, radial line, and triangulation layout methods. Addresses layout and fabrication of basic sheet metal duct system fitting to blueprint specifications. Introduces field installation practices, emergency procedures, and hazardous communication.

APPR 1210
Sheet Metal 2A
6:6:0 F
• Prerequisite: APPR 1120
Teaches the basics of bidding jobs and job costing, making pictorial drawings and free hand sketches. Features building intermediate duct system fittings to blueprint specifications. Introduces architectural sheet metal work and roof drainage systems.

APPR 1220
Sheet Metal 2B
6:6:0 Sp
Teaches construction and installation of louvers and ventilators, selection and installation of duct hangers and anchor, selection and installation of fire and smoke dampers and introduction to computer operations.

APPR 1300
Apprentice Math
3:3:0 F, Sp
For apprentices. Covers math used in apprenticeable trades. Teaches fractions, decimals, percents, interest, volume and metrics. Studies special trade formulas.

APPR 1410
Plumbing Independent 1A
5:5:0 F
For plumbing apprentices. Introduces plumbing definitions, Uniform Plumbing Code chapters 1, 2 and 3, mathematics for plumbers. Studies installation practices and IAPMO standards, related science, pipe threading, and mechanical piping systems.

APPR 1420
Plumbing Independent 1B
5:5:0 Sp
• Prerequisite: APPR 1410
For plumbing apprentices. Covers Uniform Plumbing Code as it relates to fixtures, faucets, valves, overflows, strainers, connections, floor drains, whirlpool bathtubs, cast-iron soil, drainage, glass, clay and concrete pipe. Studies basic emergency and first aid, solder and brazed joint, copper pipe, calked joint, mathematics units 7-16 and blue print reading.

APPR 1430
Plumbing Independent 2A
5:5:0 F
• Prerequisite: APPR 1420
For plumbing apprentices. Covers Uniform Plumbing Code chapters 5 and 6, Appendix A-recommended rules for sizing water supply system, mathematics and backflow prevention.

APPR 1440
Plumbing Independent 2B
5:5:0 Sp
• Prerequisite: APPR 1430
For plumbing apprentices. Covers blue print reading for plumbers units 11-34, Uniform Plumbing Code chapters 7, 8, and 9, plumbing safety NAPHCC lessons 27A, 97-104.

APPR 1450
Plumbing Independent 3A
5:5:0 F
• Prerequisite: APPR 1440
For plumbing apprentices. Covers plumbing mathematics, Uniform Plumbing Code Illustrated Training Manual chapters 4 and 10, Appendix C-minimum plumbing facilities, review of Uniform Plumbing Code chapter 3 and flex supply hoses.

APPR 1460
Plumbing Independent 3B
5:5:0 Sp
• Prerequisite: APPR 1450
For plumbing apprentices. Covers Uniform Plumbing Code chapters 5, 6, 8, 12, Appendix B, and Appendix H. Studies gas piping and appliances, good practices for gas piping and appliances, and mathematics.

APPR 1470
Plumbing Independent 4A
5:5:0 F
• Prerequisite: APPR 1460
For plumbing apprentices. Covers plumbing math review, installation practices, Uniform Plumbing Code chapters 6, 7, 8, 10, Appendices D and H. Studies heating systems, hydraulic theory, pump systems, brazing, soldering, PVC pipe and pipe dies.

APPR 1480
Plumbing Independent 4B
5:5:0 Sp
• Prerequisite: APPR 1470
For plumbing apprentices. Covers blue print reading, PVC pipe and copper joining techniques, and review and preparation for state license exam.

APPR 1800
Carpenter Apprentice 1A
5:5:0 F
• Prerequisite: Departmental Written Approval
For members of the Carpenters Joint Apprenticeship Training Committee. Covers first aid, CPR, Safety and OSHA requirements. Teaches use of hand tools, power tools, materials, tool safety, rigging, knots, hand signals and math. Introduces Building layout and forms.

APPR 1810
Carpenter Apprentice 1B
5:5:0 Sp
• Prerequisite: APPR 1800 or Departmental Written Approval
For members of the Carpenters Joint Apprenticeship Training Committee. Covers layout, framing, roots, canopies, sound control, temperature control, insulation and math. Teaches finish for exteriors and interiors.

APPR 1820
Carpenter Apprentice 2A
5:5:0 F
• Prerequisite: APPR 1810 or Departmental Written Approval
For members of the Carpenters Joint Apprenticeship Training Committee. Covers exterior/interior finish, interior systems, metal framing, drywall, partitions, ceilings, tools.

APPR 1830
Carpenter Apprentice 2B
5:5:0 Sp
• Prerequisite: APPR 1820 or Departmental Written Approval
For members of the Carpenters Joint Apprenticeship Training Committee. Covers forms, pile caps, form hardware, tilt up and precast.

APPR 1840
Carpenter Apprentice 3A
5:5:0 F
• Prerequisite: APPR 1830 or Departmental Written Approval
For members of the Carpenters Joint Apprenticeship Training Committee. Covers blueprints, elevation, symbols, detail drawing and math. Introduces CAD, print reading and drafting.

APPR 1850
Carpenter Apprentice 3B
5:5:0 Sp
• Prerequisite: APPR 1840 or Departmental Written Approval
For members of the Carpenters Joint Apprenticeship Training Committee. Covers welding safety and principles, cutting and burning. Teaches flat, vertical, overhead and light gauge. Introduces blueprint reading and drafting.

APPR 1860
Carpenter Apprentice 4A
5:5:0 F
• Prerequisite: APPR 1850 or Departmental Written Approval
For members of the Carpenters Joint Apprenticeship Training Committee. Covers scheduling, MSDS, leadership skills, concrete testing, computer keyboard, trade tips and scaffold safety.

APPR 1870
Carpenter Apprentice 4B
5:5:0 Sp
• Prerequisite: APPR 1860 or Departmental Written Approval
For members of the Carpenters Joint Apprenticeship Training Committee. Covers MSHA, clean rooms, comet, foundations, heavy construction and highway.

APPR 2310
Sheet Metal 3A
6:6:0 F
• Prerequisite: APPR 1220
Teaches the properties of air as in heating, ventilating, and cooling system applications, specifications, and review of contract documents, selections and installation of fans, duct system designs.

APPR 2320
Sheet Metal 3B
6:6:0 Sp
Teaches structural, mechanical, and electrical blueprint interpretation. Introduces the uses of CAD in the sheet metal industry. Teaches proper hoisting and rigging methods, beginning field measuring, and sign work.

APPR 2410
Sheet Metal 4A
6:6:0 F
• Prerequisite: APPR 2320
Uses advance mathematics to design and layout duct systems. Teaches specialized power equipment used in the shop and in the field. Incorporates advanced layout techniques to layout and fabricate sheet metal duct fittings.

APPR 2420
Sheet Metal 4B
6:6:0 Sp
Teaches methods to layout and install metal ceilings and boiler breaching, construction of metal buildings and installation of skylights, basic air conditioning properties and duct sizing, and determination of the air quality in a building.

APPR 281R
Cooperative Work Experience
1-8:0:5-40 On Sufficient Demand
• Corequisite: 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.

APPR 285R
Cooperative Correlated Class
1:1:0 On Sufficient Demand
• Corequisite: 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.

AUT 1700
Brakes and Wheels
3:3:1 On Sufficient Demand
For automotive apprentices. 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 runout and wheel balancing techniques. Covers acetylene and mig welding with emphasis on welding safety.

AUT 1710
Suspensions and Steering and Air Conditioning
3:3:1 On Sufficient Demand
For automotive apprentices. Studies steering and suspension components. Teaches steering, gear, rack and pinion and conventional and McPhearson strut design. Includes steering geometry, and factor of tire wear. Discusses different methods of front end alignment. Studies troubleshooting and repair of heating and air conditioning system, includes A/C evacuation and seal replacement. Discusses electrical and service tools.

AUT 1720
Engine Repair
3:3:1 On Sufficient Demand
For automotive apprentices. Studies construction, operation and performances of various types of engines, and teaches ethics of customer relations. 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.

AUT 1730
Engine Performance
3:3:1 On Sufficient Demand
For automotive apprentices. Studies electrical and fuel systems 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.

AUT 1740
Automotive Computer Literacy
3:3:1 On Sufficient Demand
For automotive apprentices. Performs basic operations on PC compatible computers including keyboarding and key functions using typical shop management software. Emphasizes components found on computerized automobile systems. Identifies various common automotive computer components by type and function. Includes hands-on computer use in diagnostics and troubleshooting.

AUT 1760
Manual Drive Trains and Safety
3:3:1 On Sufficient Demand
For automotive apprentices. Studies diagnosis and repair of manual transmissions including transaxles, differentials, drive shafts, axle shafts, and four wheel drive components. Teaches clutch theory with torque and gear application. Covers general and trade safety common to the automotive trades. Stresses accident prevention for personal safety along with equipment safety.

AUT 1770
Automatic Transmission and Transaxles
3:3:1 On Sufficient Demand
For automotive apprentices. Studies diagnosis, repair, and adjustment of most automatic transmissions and transaxles. Covers basic planetary gearing. Includes hydraulic theory, strategies for operation, and service of GM, Ford, Chrysler, and many foreign models.

AUT 2700
Advanced Alignment and Electrical Theory
3:3:1 On Sufficient Demand
• Prerequisite: AUT 1700 through AUT 1770
For automotive apprentices. Presents advanced theory of laser alignment and electrical accessories. Studies mechanical, electronic, and electrical parts of automotive engine including fuel injection and electronic emission controls.

AUT 2710
Advanced Auto Engine Performance
3:3:1 On Sufficient Demand
• Prerequisite: AUT 1700 through AUT 1770
For automotive apprentices. Includes advanced instruction in engine performance, starting systems, charging systems, and indicator circuits. Covers all mechanical and electronic parts of the vehicle relative to quality engine tune-up, and diagnostic instruction.

AUT 2720
Advanced Auto Electrical and Emission Controls
3:3:1 On Sufficient Demand
• Prerequisite: AUT 1700 through AUT 1770
For automotive apprentices. Studies emissions control devices on American and foreign vehicles. Reviews state emissions certification requirements. Covers auto accessories such as wipers, cruise control systems, air bags, and ABS brake systems.

AUT 2730
Advanced Auto Transmissions and Brake Systems
3:3:1 On Sufficient Demand
• Prerequisite: AUT 1700 through AUT 1770
For automotive apprentices. Includes advanced instruction on automatic transmissions including GM, Ford, Chrysler, and foreign makes. Studies computerized transmission controls of shifting and torque converter lock-ups. Covers electrical and mechanical operation of anti-lock brake systems (ABS brakes).

AUT 2740
Advanced Electronics and Fuel Injection
3:3:1 On Sufficient Demand
• Prerequisite: AUT 1700 through AUT 1770
For automotive apprentices. Includes advanced instruction on computerized fuel injection with emphasis on distributorless ignition. Studies electronic and mechanical sensors of fuel and ignition systems. Covers basic gas and diesel engine design and repair. Also covers alternative fuel vehicles.

AUT 2750
Advanced Air Conditioning and Heating
3:3:1 On Sufficient Demand
• Prerequisite: AUT 1700 through AUT 1770
For automotive apprentices. Teaches advanced air conditioning and heating with some emphasis on electronics and computerized engine systems and fuel injection.

AVSC 1310
AMT Procedures and Practices A
5:5:0 On Sufficient Demand
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
5:5:0 On Sufficient Demand
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
5:5:0 On Sufficient Demand
- Prerequisite: 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
5:5:0 On Sufficient Demand
- Prerequisite: 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 2210
AMT Airframe Phase II C
5:5:0 On Sufficient Demand
- Prerequisite: 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
5:5:0 On Sufficient Demand
- Prerequisite: 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
5:5:0 On Sufficient Demand
- Prerequisite: 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
5:5:0 On Sufficient Demand
- Prerequisite: 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.

DMT 1010
Diesel Apprentice Electrical 1A
5:5:0 On Sufficient Demand
Studies PC computers for managing shop information, work orders and reports. Uses word processing, data management and typical shop management software. Teaches theory of operation and troubleshooting/repair skills in automotive electrical systems using state-of-the-art testing equipment. Includes safety and environmental awareness.

DMT 1020
Diesel Apprentice Engine Overhaul 1B
5:5:0 On Sufficient Demand
Covers basic operating principles and technical information. Focuses on engine rebuilding nomenclature, precision measuring, cooling systems, lubricating systems, induction and exhaust systems. Provides theory and lab experiences on diesel engines.

DMT 1030
Diesel Apprentice Governor Systems 2A
3.5:3.5:0 On Sufficient Demand
- Prerequisite: DMT 1020

For second semester advanced Diesel Technology students and other interested community members. Provides theory with heavy duty on and off road diesel fuel systems. Covers tune up procedures, fuels, proper engine oils, overview of mechanical governors, testing and adjusting. Includes dynamometer operations, maintenance procedures, and emission controls. Emphasizes ethics, safety, and electrical review.

DMT 1040
Diesel Apprentice Engine Controls 2B
3.5:3.5:0 On Sufficient Demand
- Prerequisite: DMT 1030

For second semester Diesel Technology students and other interested community members. Provides theory with mechanical and electronic engine controls on heavy duty diesel engine systems. Covers tune up procedures, electronic fuel control and governor system for Detroit Diesel, Cummins and Caterpillar engines. Emphasizes testing, adjusting, maintenance procedures, emission controls, work ethics and safety.

DMT 1050
Diesel Apprentice Engine Diagnostics and Air Conditioning 2C
3.5:3.5:0 On Sufficient Demand
- Prerequisite: DMT 1040

For second semester Diesel Technology students and other interested community members. Provides theory with on and off road heavy duty systems including computerized engine diagnostics and air conditioning. Covers tune up procedures, electronic HUEI, Bosch distributor and inline fuel system. Includes testing, adjusting, maintenance procedures, air-conditioning and heating. Emphasizes work ethics and safety.

DMT 1060
Diesel Apprentice Fluid Power 3A
5:5:0 On Sufficient Demand
Provides instruction in theory and application of fluid power (hydraulics) as used in modern mobile equipment. Includes practical theory related to the operation and repair of hydraulic and pneumatic components, and hydraulic systems. Emphasizes testing, troubleshooting, design and use of hydraulic schematics, and electric over hydraulic systems.

DMT 1070
Diesel Apprentice Power Transmission 3B
5:5:0 On Sufficient Demand
- Prerequisite: DMT 1060

Provides instruction on theory and operation of torque converters, powershift and automatic transmissions, electronic control systems for transmissions, and service of hydraulic brake systems. Emphasizes troubleshooting, repair procedures, the use of service manuals and schematics.

DMT 1080
Diesel Apprentice Chassis 4A
5:5:0 On Sufficient Demand
- Prerequisite: DMT 1020

Provides theory on maintenance and repair of heavy duty chassis systems. Covers air brake systems, ABS, steering geometry, front end and tandem alignment, steering and load carrying suspensions and frame maintenance. Empha-

sizes troubleshooting, highway safety and preventative maintenance.

DMT 1090
Diesel Apprentice Power Trains 4B
5:5:0 On Sufficient Demand
• Prerequisite: DMT 1020
Provides theory of maintenance and repair of heavy duty power trains systems. Covers 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.

DMT 1400
Industrial Maintenance 1A
5:5:0 On Sufficient Demand
• Prerequisite: Departmental written approval
A general maintenance course for Industrial Maintenance apprentices. Teaches environment protection systems fundamentals, safety and emergency procedures.

DMT 1410
Industrial Maintenance 1B
5:5:0 On Sufficient Demand
• Prerequisite: Departmental written approval
A power transmission course for Industrial Maintenance apprentices. Teaches power transmission safety, OSHA guidelines, gearing and gear boxes.

DMT 1430
Industrial Maintenance 2B
5:5:0 On Sufficient Demand
• Prerequisite: Departmental written approval
A hydraulics course for Industrial Maintenance apprentices. Teaches hydraulics principles and power, fluids and conductors, cylinders, reservoirs, basic industrial systems. Covers hydraulic safety and OSHA guidelines, troubleshooting and repair of hydraulic valves.

DMT 1440
Industrial Maintenance 3B
5:5:0 On Sufficient Demand
• Prerequisite: Departmental written approval
An electrohydraulics and pneumatics course for Industrial Maintenance apprentices. Teaches pumps, circuits, and symbols (I.S.O.), troubleshooting, industrial systems including hydrostatic drives, basic pneumatics, circuits and components, and pressure vessel code. Covers troubleshooting of compressors, aftercoolers, dryers, oilers, valves, filters, separators, pneumatic or nitrogen operated system controls, machinery lube systems and steam systems.

EART 1010
Industrial Maintenance 2A
5:5:0 On Sufficient Demand
• Prerequisite: Departmental written approval
An electricity course for Industrial Maintenance apprentices. Teaches fundamentals of electricity and electrical safety, electric motor fundamentals, transformers, rectifiers and inverters. Introduces circuit breakers, wiring diagrams and electronic and computer controls.

EART 1020
Industrial Maintenance 4A
5:5:0 On Sufficient Demand
• Prerequisite: Departmental written approval
A basic computers, PLC logic and variable speed drives course for Industrial Maintenance apprentices to troubleshoot, adjust, and repair AC electric motors, motor controls, PLC controls and variable speed drives.

EART 1110
Electrical Apprentice 1A
5:5:0 F
For electrical apprentices. Teaches the theory of and includes an introduction to electricity, basic DC theory, voltage, current, resistance, batteries, and magnetism. Covers principles, formulas and math for simple electrical circuits, series, parallel, combination circuits, and power problems.

EART 1120
Electrical Apprentice 1B
5:5:0 Sp
• Prerequisite: EART 1110 or departmental written approval
For electrical apprentices. Introduces measuring instruments, magnetism, circuits, devices, National Electrical Code, blueprint reading, DC motors, low voltage circuits, DC motor control, DC generators, 3 and 4-way switches, and conduit bending.

EART 1210
Electrical Apprentice 2A
5:5:0 F
• Prerequisite: EART 1120 or departmental written approval
For electrical apprentices. Teaches application of AC theory as it applies to industrial applications in the electrical field. Covers the basic construction and theory of inductance, capacitance, and resistors dealing with L.C.R. circuits as they are used in the electrical field. Covers the mathematics used to solve problems in series and parallel circuits made up of transformers, inductance, capacitance, and resistors. Emphasizes the use of a calculator in solving problems pertaining to the right triangle, as it describes the current-voltage relationship in series and parallel circuits made up of inductors, capacitors, and resistors. Includes hands-on experiences in correcting power factor in motors, comparing true power, apparent power and reactive power in inductor, capacitors and resistors.

EART 1220
Electrical Apprentice 2B
5:5:0 Sp
• Prerequisite: EART 1210 or departmental written approval
For electrical apprentices. Covers installation, troubleshooting, preventive maintenance and repair of AC motors, motor control, and transformers. Teaches proper use of tools and test equipment needed in maintaining AC motors, motor control, and transformers. Includes hands-on experiences on AC motors, motor control, and transformers.

EART 1300
Electrical Union Apprentice 1A
5:5:0 Not 05-06
• Prerequisite: Departmental Written Approval
For electrical union apprentices. Teaches installation and use of fastening devices, hoisting loads, wire connectors, fabricating and installation of conduit. Covers principles, formulas and math, safety, history of IBEW/NECS's structure, and tools of the trade. Introduces resistance in a DC series circuit.

EART 1310
Electrical Union Apprentice 1B
5:5:0 Not 05-06
• Prerequisite: Departmental Written Approval
For electrical union apprentices. Teaches voltage functions, resistance, how current reacts, current dividers, and how to calculate power in a DC parallel circuit and DC combination circuits. Covers principles of magnetism and electromagnetism, electrical generators, superposition to circuit calculations, DC theory principles and aluminum conductors. Introduces the National Electric Code, blue prints.

EART 1320
Electrical Union Apprentice 2A
5:5:0 Not 05-06
• Prerequisite: Departmental Written Approval
For electrical union apprentices. Teaches NEC code book skills, Local union by-laws, AC/DC theory, three phase systems, AC resistive circuits, capacitors, diodes, and rectifiers. Covers electrical test instruments, multimeters, oscilloscope, inductance, vectors, RL circuits.

EART 1330
Electrical Union Apprentice 2B
5:5:0 Not 05-06
• Prerequisite: Departmental Written Approval
For electrical union apprentices. Teaches LC circuits, LCR circuits, transformers, three-phase systems. Covers benders, wiring methods, conductor ampacity, branch circuits and feeders, lighting and receptacles, cable assemblies, boxes and fittings. Reviews blueprints and NEC.

EART 2310
Electrical Apprentice 3A
5:5:0 F
• Prerequisite: Departmental written approval
For electrical apprentices. Teaches installation, troubleshooting, preventive maintenance and repair of AC motor controls. Covers the proper use of hand tools and test equipment used in the maintenance of AC motor controllers.

EART 2320
Electrical Apprentice 3B
5:5:0 Sp
• Prerequisite: Departmental written approval
For electrical apprentices. Covers theory of operation of electronic devices used in industrial control systems. Studies test equipment and procedures used in installation maintenance, troubleshooting, and repair of electronic control circuits. Introduces basic theory and operation of instrumentation and process control equipment.

EART 2330
Electrical Union Apprentice 3A
5:5:0 Not 05-06
• Prerequisite: Departmental Written Approval
For electrical union apprentices. Teaches Kirchhoff's laws, Thevenin's and Norton's theorems, diodes, single phase power supplies, transducers, transistors, switching and biasing techniques. Covers silicon controlled rectifiers (SCR), triacs and diacs, unijunction transistor, amplifiers, field effect transistors, ICs and OP AMPs, IC timers, electronic applications, and industrial prints. Reviews DC/AC theory.

EART 2340
Electrical Union Apprentice 3B
5:5:0 Not 05-06
• Prerequisite: Departmental Written Approval
For electrical union apprentices. Teaches grounding, cause and effect of electrical faults, grounding components, grounding connections, grounding of electrical systems, systems and circuit grounding requirements for 1kV and over. Introduces earth testing, transformer overcurrent protection, proper applications of fuses, short circuits calculations, electrical load calculations, calculating the parameters of range loads. Review three phase transformers, WYE & DELTA connections.

EART 2350
Electrical Union Apprentice 4A
5:5:0 Not 05-06
• Prerequisite: Departmental Written Approval
For electrical union apprentices. Teaches lightening protection systems, AC fractional horsepower motors, repulsion, DC and universal motors, polophase motors, AC motors, manual starters and magnetic coils, relays and timers, controls, clutches and drives. Covers motor control drawings, wiring diagrams, and schematics.

EART 2360
Electrical Union Apprentice 4B
5:5:0 Not 05-06
• Prerequisite: Departmental Written Approval
For electrical union apprentices. Teaches characteristics of logics circuits, AND logic, OR logic, amplifiers, NAND and NOR logic, XOR and XNOR logic, fiber optic theory and installation, optoelectronic devices. Covers motor speed control, series resonance, parallel resonance, filters, power factor, power quality, power harmonics, cable trays, motor branch circuits. Introduces Boolean algebra, hazardous locations, methods and equipment.

EART 2370
Electrical Union Apprentice 5A
5:5:0 Not 05-06
• Prerequisite: Departmental Written Approval
Designed for fifth year electrical union apprentices. Teaches fire alarms, advanced technology systems, smoke detectors, fire alarm installation, maintenance, and troubleshooting. Introduces instrumentation, calibration and telephone wiring. Covers fundamentals of flow, pressure, level, temperature, control valves, pneumatics, controllers, and sexual harassment.

EART 2380
Electrical Union Apprentice 5B
5:5:0 Not 05-06
• Prerequisite: Departmental Written Approval
Designed for fifth year electrical union apprentices. Teaches fundamentals, troubleshooting and electrical controls for air conditioning/refrigeration systems. Introduces Cable faults, security systems, small programmable controllers. Covers programming timers and counters, data-manipulation, emergency system installation requirements.

EART 2410
Electrical Apprentice 4A
5:5:0 F
• Prerequisite: EART 2320 or departmental written approval
For electrical apprentices. Studies industrial motor control with particular attention to the National Electrical Code and Programmable Logic Controllers (PLC). Explores the fundamental parts of a PLC and motor control systems. Includes print reading.

EART 2420
Electrical Apprentice 4B
5:5:0 Sp
• Prerequisite: EART 2410 or departmental written approval
For electrical apprentices. Reviews DC and AC theory, electrical circuits and circuit calculations, transformers, motors, and motor control circuits. Studies the calculation of single and three phase loads, service entrance size, feeder and branch circuit capacity, wire and conduit size, and voltage drops. Includes a comprehensive study of all chapters of the National Electrical Code with an emphasis placed on the preparation for taking the Utah State Journeyman Exam. Includes print reading and problem solving. Completers should be prepared to take the Utah Journeyman Exam, provided they have completed all State requirements.

HVAC 1110
Industrial Maintenance 4D
5:5:0 On Sufficient Demand
• Prerequisite: Departmental written approval
A heating ventilation air-conditioning course for Industrial Maintenance apprentices. Teaches processes and skills to troubleshoot and repair room and cab air-conditioning.

HVAC 1130
HVAC 1B
5:5:0 Sp
• Prerequisite: HVAC 1200
For HVAC apprentices. Covers Rocky Mountain Gas Association certification. Teaches properties of natural gas, appliance installation, heat loss calculation, equipment sizing, and duct design. Completers should be prepared to complete the RMGA certification test.

HVAC 1150
HVAC 2B
5:5:0 Sp
• Prerequisite: HVAC 1220
For HVAC apprentices and students interested in exploring the HVAC industry. Provides advanced sheet metal practices, duct size and airflow; joining methods, duct mate, cleats, lock, vibration isolators; field measures (field, residential and commercial); and old timers tricks-of-the-trade. Studies air movement, blowers, fans, ventilation systems and drafts, duct systems, dampers, returns, filters, air flow calculations and system balancing.

HVAC 1170
HVAC 3B
5:5:0 Sp
• Prerequisite: HVAC 2200
For HVAC apprentices. Covers piping and welding procedures, gas welding fundamentals, safety and techniques, arc welding; installation practices, equipment room layout, controls and electric equipment location, rigging, vibration elimination and sound controls. Teaches start-up and servicing controls, compressor motor, condenser, cooling tower, metering devices, chillers, water balancing, hydraulics, fan coil unit and heat pumps.

HVAC 1190
HVAC 4B
5:5:0 Sp
• Prerequisite: HVAC 2220
For HVAC apprentices. Teaches properties of natural gas, natural gas distribution systems, gas piping systems, combustion air, venting, appliance installation, heat loss calculation, equipment sizing and selection, and duct design. Successful completers should be prepared to complete the RMGA certification testing.

HVAC 1200
HVAC 1A
5:5:0 F
For heating, ventilation, and air conditioning apprentices. Teaches gas properties, gas piping, combustion air and principles of heating. Covers safety and codes, venting, sheet metal tools and safety, basic metals and fittings.

HVAC 1220
HVAC 2A
5:5:0 F
• Prerequisite: Departmental written approval
For heating, ventilation, and air conditioning apprentices. Teaches concepts of heat, heat loss, heat load calculation, cooling load calculation, ducted warm air systems and room air distribution. Covers duct sizing and layout, air conditioners, electrical safety and fundamentals of magnetism. Teaches power supplies, direct current, resistors and resistance, inductors and inductance.

HVAC 2200
HVAC 3A
5:5:0 F
• Prerequisite: Departmental written approval
For heating, ventilation, and air conditioning apprentices. Teaches electrical safety, fundamental concepts of magnetism, power supplies, fundamentals of direct current. Covers resistors and resistance, inductors and inductance, capacitors and capacitance. Teaches transformers, voltage=EMF=potential difference, relays, circuit protection devices and supply regulation and filtration.

HVAC 2220
HVAC 4A
5:5:0 F
• Prerequisite: Departmental written approval
For heating, ventilation, and air conditioning apprentices. Teaches principles of heat flow, air filtration, humidification, moisture, psychometrics. Covers air conditioning systems, duct heaters and furnaces, modulating control, valves, dampers and troubleshooting.

LINE 1010
Lineman Apprentice 1A
6:6:0 F, Sp
• Prerequisite: Departmental written approval
For lineman training technology apprentices. Introduces transmission and distribution systems, transmission and distribution. Teaches safety, climbing, overhead distribution systems, tools and service installation.

LINE 1020
Lineman Apprentice 1B
6:6:0 F, Sp
• Prerequisite: Departmental written approval
For lineman training technology apprentices. Introduces metering, rigging, pole work, care and testing of equipment and distribution. Teaches safety, overhead maintenance, pole framing and guying.

LINE 1030
Lineman Apprentice 2A
6:6:0 F, Sp
• Prerequisite: Departmental written approval
For lineman training technology apprentices. Introduces line equipment, tree trimming, hydraulic derricks and digging equipment. Teaches DC fundamentals, pole top equipment and replacement.

LINE 1040
Lineman Apprentice 2B
6:6:0 F, Sp
• Prerequisite: Departmental written approval
For lineman training technology apprentices. Introduces line equipment, transformers, safety and distribution. Teaches underground, hydraulics systems, AC fundamentals, and hand tools.

LINE 1300
Line Clearance Apprentice 1A
5:5:0 On Sufficient Demand
• Prerequisite: Departmental written approval
Teaches electrical safety, hazard tree identification, ropes, knots and climbing. Covers chain saw use and safety, first aid/CPR certification, pesticide applications, pruning standards and how trees grow. Includes hot line school.

LINE 1310
Line Clearance Apprentice 1B
5:5:0 On Sufficient Demand
• Prerequisite: Departmental written approval
Teaches tree identification and biology, soil relations, water management, nutrition and fertilization, tree problem diagnosis, tree planting and establishment. Covers climbing safety and techniques, public relations, aerial bucket and tree rescue, electrical hazards, chipper and stump grinder safety, operations and maintenance. Includes ISA certification, flagging and traffic control certification and CDL training.

LINE 1500
Lineman Substation Apprentice 1A
6:6:0 On Sufficient Demand
• Prerequisite: Departmental written approval
Teaches basic electricity, electrical safety, tool use, Ohm's law, and series circuits. Covers parallel, combination, and DC fundamentals.

LINE 1510
Lineman Substation Apprentice 1B
6:6:0 On Sufficient Demand
• Prerequisite: Departmental written approval
Teaches reading electrical symbol diagram 1, substations and switchyards, transmission and distribution, safety in transmission and distribution maintenance. Covers trigonometry for AC electricity, induction and transformers. Introduces T&D systems, and AC electricity fundamentals.

LINE 1520
Lineman Substation Apprentice 2A
6:6:0 On Sufficient Demand
• Prerequisite: Departmental written approval
Teaches safety in substations and switchyards, electromagnetic induction, high voltage AC power 1 and 2, transformers 1, and reading electrical system diagram 2. Covers use of electrical test equipment and line test equipment, care and testing of tools and equipment, bucket truck 1, and system protection and monitoring.

LINE 1530
Lineman Substation Apprentice 2B
6:6:0 On Sufficient Demand
• Prerequisite: Departmental written approval
Teaches distribution line safety, material handling bucket truck, power transformer insulation resistor testing, power transformer turns ration testing, power transformer oil test and power transformer pressure relay testing. Covers new power transformer inspection and tests, power transformer vacuum dry out and vacuum filling, temperature indicating and testing, and oil reconditioning.

LINE 1600
Meter Apprentice 1A
6:6:0 On Sufficient Demand
• Prerequisite: Departmental written approval
For meter apprentices. Teaches basic electrical principles, principles of magnetism AC concepts. Covers atomic structure, electrical qualities, Ohm's law, resistors, and parallel circuits. Teaches trigonometry and alternating current.

LINE 1610
Meter Apprentice 1B
6:6:0 On Sufficient Demand
• Prerequisite: Departmental written approval
For meter apprentices. Teaches math for metering, safety, watt hour meter principles and wire tables.

LINE 1620
Meter Apprentice 2A
6:6:0 On Sufficient Demand
• Prerequisite: Departmental written approval
For meter apprentices. Teaches meter watt hour constants, register ratios and formulas. Covers principles of accuracy testing, meter testing and calibration.

LINE 1630
Meter Apprentice 2B
6:6:0 On Sufficient Demand
• Prerequisite: LINE 1620 or departmental written approval
For meter apprentices. Teaches single phase meter application and installation, polyphase power systems, polyphase meter application, meter testing and calibration. Covers instrument transformers, testing single phase transformer rated meters and Blondel's theorem.

LINE 2010
Lineman Apprentice 3A
6:6:0 F, Sp
• Prerequisite: Departmental written approval
For lineman training technology apprentices. Introduces compressors, transformer connections, underground conduit and street lighting systems. Teaches distribution repair with gloves and hot sticks, and cable installation.

LINE 2020
Lineman Apprentice 3B
6:6:0 F, Sp
• Prerequisite: Departmental written approval
For lineman training technology apprentices. Introduces troubleshooting overhead and transformers, safety and power quality. Teaches high-voltage AC power, switchgear and URD transformers.

LINE 2030
Lineman Apprentice 4A
6:6:0 F, Sp
• Prerequisite: Departmental written approval
For lineman training technology apprentices. Introduces reading electrical diagrams, transformers, splicing and meters. Teaches cable termination, troubleshooting, safety and fault location.

LINE 2040
Lineman Apprentice 4B
6:6:0 F, Sp
• Prerequisite: Departmental written approval
For lineman training technology apprentices. Introduces voltage regulators, customer relations, cable fault locations, and transformers.

Teaches troubleshooting, circuit breakers, capacitors and reactors.

LINE 2500
Lineman Substation Apprentice 3A
6:6:0 On Sufficient Demand
• Prerequisite: Departmental written approval
Teaches safety in substations and switchyards continued, circuit breakers 1 and 2, contact resistance testing, new circuit breakers inspections and tests, circuit breaker time travel testing and analysis. Covers Hydraulic derricks and digging equipment rigging 1 and 2 and advanced rigging.

LINE 2510
Lineman Substation Apprentice 3B
6:6:0 On Sufficient Demand
• Prerequisite: Departmental written approval
Teaches bucket truck safety, capacitors and reactors, voltage regulators, relays 1 and 2, control equipment, and high voltage terminations. Covers substation battery, battery chargers, testing, cell and charger replacement.

LINE 2520
Lineman Substation Apprentice 4A
6:6:0 On Sufficient Demand
• Prerequisite: Departmental written approval
Teaches SF6 gas properties and handling, current transformer testing 1 and 2, vacuum bottle hi-pot testing, infrared conditioning monitoring, corona discharge testing. Covers multimeter operation and use, instrument transformers, reactive metering concepts, SCADA-system protection and monitoring (Provo), and cable terminations.

LINE 2530
Lineman Substation Apprentice 4B
6:6:0 On Sufficient Demand
• Prerequisite: Departmental written approval
Teaches safety in transmission and distribution maintenance, safety in substation and switchyards continued, transformers 1, use of electrical test equipment, distribution line safety, power transformer turns ratio testing, power transformer temperature indicating testing, oil reconditions. Covers relays 1 and 2 continued, capacitors and reactors continued, new circuit breakers inspections and tests continued.

LINE 2600
Meter Apprentice 3A
6:6:0 On Sufficient Demand
• Prerequisite: LINE 1630 or departmental written approval
For meter apprentices. Teaches self-contained polyphase meter testing, polyphase transformer rated application. Covers demand metering concepts.

LINE 2610
Meter Apprentice 3B
6:6:0 On Sufficient Demand
• Prerequisite: LINE 2600 or departmental written approval
For meter apprentices. Teaches testing and calibrating demand meters, meter mounting devices and test switches. Covers reactive metering and reactive meter testing.

LINE 2620
Meter Apprentice 4A
6:6:0 On Sufficient Demand
• Prerequisite: LINE 2610 or departmental written approval
For meter apprentices. Teaches totalizing meters, installation checks and inspections. Covers solid state meters and associated devices. Teaches customer relations.

LINE 2630
Meter Apprentice 4B
6:6:0 On Sufficient Demand
• Prerequisite: LINE 2620 or departmental written approval
For meter apprentices. Teaches energy diversion, trouble shooting techniques, and pulse initiators and recorders. Covers electronic metering, register programming and computers.

MET 1100
Introduction to Manufacturing Engineering Technology
3:2:2 F, Sp
Introduces technological directions of manufacturing, wage scales, advancement opportunities, and job-hunting skills in student's preferred manufacturing field. May include guest speakers, field trips, and labs.

MET 1300
Drafting/Blueprint Reading/Geometric Dimensioning and Tolerancing
2:1:3 F, Sp
Studies mechanical and structural blueprint reading as it applies to the manufacturing environment. Teaches dimensioning and tolerancing, including the symbols and terms, datums, materials condition symbols, form and profile, orientation and run-out and location. Includes lab.

MET 1350
Related Machine Shop Practice
2:1:3 F, Sp
For students of majors other than Machine Tool Technology. Covers basic machine tool operation principally on the engine lathe. Includes turning, boring, drill sharpening, tool bit grinding, taper cutting, facing, hole formation, threading both internal and external, and simple tool design.

MET 1400
Industrial Maintenance 3A
5:5:0 On Sufficient Demand
• Prerequisite: Departmental written approval
A drafting, blueprint reading, geometric dimensioning and tolerancing course for Industrial Maintenance apprentices. Studies mechanical and structural blueprint reading as it applies to the manufacturing environment. Teaches dimensioning and tolerancing, including the symbols and terms, datums, material condition symbols, form and profile, orientation and runout, and location.

MET 1500
Hydraulics and Pneumatics
3:2:3 Sp
Teaches 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, troubleshooting techniques and blue-print reading. Successful completers should be able to work with hydraulic and pneumatic systems in correlation with related industrial electrical applications. Includes lecture, demonstrations and lab work.

MET 1800
Engineering Materials
4:2:6 F
• Prerequisite: PHYS 2010
Teaches properties and principles of material cycle, solid materials, metallic materials, polymeric materials, plastics, elastomers, adhesives, ceramics, composites and electronic materials. Studies principles of tensile, compression, flexure, shear, hardness, impact, fatigue and non-destructive testing. Includes proper selection of materials through analysis, testing and pricing. Includes lab.

MET 2300
Production Scheduling
2:2:0 F
Prepares student to plan, schedule, organize and direct the manufacturing functions of a company. Includes tool and production planning. Examines the characteristics, dependencies and factors which affect these functions. Students are prepared to plan for specific periods both long and short-term, to use lead time, shop order files, dispatch lists, priority ranking and status reports.

MET 2400
Manufacturing Processes
5:2:9 F
Teaches principles of production equipment and concurrent processes. Includes machining, metal casting, powder metallurgy, joining of metals, sheet metal, plastics, machine shop practices and principles and cutting. Involves cost estimating, design for assembly, CAM, lean manufacturing, automation and environmentally-conscious manufacturing. Includes the technological limitations. Includes lab.

MET 2450
Manufacturing Systems and Quality
3:3:0 F, Sp
For students desiring an advanced course in the organization and operation of the modern manufacturing company. Focuses on quality in manufacturing.

MET 2500
Computer Numerical Control and Automation
3:2:3 Sp
• Prerequisite: MET 2400
Teaches the application of Computer Numerical Control principles to a modern manufacturing

facility. Includes the components, systems, dimensioning, process planning, tooling and tool changing, programming and interpolation, use of computer capabilities and advanced CNC features, and EIA/ASCII codes. Studies automation principles including the environment necessary for automation and the automated work cell. Includes lab.

MET 281R
Cooperative Work Experience
1-8:0:5-40 Sp
- Prerequisite: DT 2600, ENGL 1010, ENGL 2020, MET 1300, MET 2400
- Corequisite: MET 285R

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 objectives that improve present work performance.

MET 285R
Cooperative Correlated Class
1:1:0 F, Sp
- Prerequisite: DT 2600, ENGL 1010, ENGL 2020, MET 1300, MET 2400
- Corequisite: MET 281R

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 presentations and written assignments. Completers should be better able to perform in their field of work or study.

MET 295R
Current Topics in Manufacturing Engineering Technology
1-4:1-4:0-6 F, Sp
- Prerequisite: MET 2400, MET 2500, DT 2600, DT 2610

Presents various topics relating to technology manufacturing advances. Examines global manufacturing techniques, processes and equipment. Includes oral and written reports. May include lab, field trips, trade shows, professional organization meetings and guest speakers. Repeatable for a total of 3 credits towards the degree.

MTT 1110
Machine Tool I
5:5:0 F

For first semester students. Teaches the manufacture of metal parts using machine tool operations. Studies theoretical operations of the engine lathe, drill press, pedestal grinder, and vertical milling machine. Includes lecture, discussion and demonstrations.

MTT 1120
Machine Tool Shop I
5:0:15 Sp

Teaches the manufacture of metal parts using machine tool operations. Covers "hands-on" operations of the engine lathe, drill press, pedestal grinder, and vertical milling machine. Studies all common operations done on a metal cutting lathe, and a basic introduction of the vertical milling machine. Includes demonstrations, practical applications and labs. Completers should have entry skills for the machine tool industry. Also offered over two semesters as MTT 112A and MTT 112B. See advisor for details.

MTT 1150
Machine Tool Mathematics/Measurement
4:4:0 On Sufficient Demand
- Prerequisite: Department Approval based upon assessment math score

For first semester students. Reviews fractions, decimals, percentages, ratio and proportion, transposing formulas, and areas and volumes. Covers right angle trigonometry, plane geometry, and oblique trigonometry.

MTT 1210
Machine Tool II
5:5:0 F
- Prerequisite: MTT 1110, MTT 1120, MTT 1150; DT 1000

For second semester students. Covers advanced machining principles dealing with threads, gear cutting, CNC, basic metallurgy tool building, and design. Includes operation theory of bandsaw machines, shapers, grinders, turret lathes. Improves skills on engine lathes and vertical milling machines. Uses lectures, discussions and demonstrations. Also offered over two semesters as MTT 112A and MTT 112B. See advisor for details.

MTT 1220
Machine Tool Shop II
5:0:15 Sp
- Prerequisite: MTT 1110, MTT 1120, and MTT 1150

Teaches advanced operation of vertical milling machines. Introduces operation of horizontal milling machines, grinders, shapers, and turret lathes. Includes the combining of machine operations for the manufacturing of products. Teaches on-call response to customer job demand. Includes "hands-on" experience and demonstrations. Also offered over two semesters as MTT 122A and MTT 122B. See advisor for details.

MTT 2310
Precision Manufacturing
2:0:6 F, Sp
- Prerequisite: First-year MTT program or equivalent

For second year students who have finished the courses covering basic machining operations. Improves skills through production of marketable items. Studies cost effectiveness through time and cost figure exercises.

MTT 2330
Introduction to CNC
5:2:9 F, Sp

For students seeking careers in CNC programming and operation. Introduces programming techniques such as conversational, G & M code, and APT. Studies CAM software and how to generate code for CAM machines. Successful completers should be able to generate a process plan, tool list, and a working program to produce the part from a print. Also offered over two semesters as MTT 112A and MTT 112B. See advisor for details.

MTT 2430
CNC Operations
5:2:9 F, Sp
- Prerequisite: MTT 2330

For students who want to enhance their programming and operating skills. Reviews different manufacturing materials and cutting process. Studies industrial CAM software and the process of Computer Aided Manufacturing. Emphasizes fixturing and basic machine setups. Also offered over two semesters as MTT 112A and MTT 112B. See advisor for details.

MTT 2440
Die and Mold Making
6:3:9 On Sufficient Demand
- Prerequisite: MTT 1110, MTT 1120, MTT 1150, MTT 2330
- Corequisite: MTT 1210, MTT 1220

Covers the design and construction of plastic and sheet metal production tools. Identifies types of plastics and their applications as used in design and manufacturing. Includes set up and operation of injection mold machines. Covers theory of sheet metal punch and die work. Includes hands-on application of die design with components necessary to pierce and form sheet metal parts. Students design and build plastic injection molds, using EDM, CNC and conventional machine tools. Completers should be able to enter the field as a trainee mold maker.

WELD 1300
Industrial Maintenance 3C
5:5:0 On Sufficient Demand
- Prerequisite: Departmental written approval

A welding course for Industrial Maintenance apprentices. Teaches welding processes and safety. Covers oxyacetylene equipment, joints and positions, brazing, oxyacetylene and oxy-fuel cutting, scaring and heating.

WELD 1310
Industrial Maintenance 4B
5:5:0 On Sufficient Demand
- Prerequisite: Departmental written approval

An advanced welding course for Industrial Maintenance apprentices. Teaches processes and procedures in arc-welding (SMAW), weld defects and testing, fundamentals of metallurgy, expansion-contractions, fabrication and layout. Introduces MIG welding and TIG welding.

WELD 1320
Industrial Maintenance 4C
5:5:0 On Sufficient Demand
• Prerequisite: Departmental written approval
A pipe fitting course for Industrial Maintenance apprentices to construct threaded and welded pipe runs to industrial standards. Weld inspection methods will also be taught.

WELD 1330
Pipe Welding
5:5:0 On Sufficient Demand
• Prerequisite: WELD 1320 or Instructor's Written Approval
For Mechanical Repair Apprentices. Part two of two part series. Combines principles covered in WELD 1300, 1310, and 1320. Emphasizes weld certification of pipe and plate for vertical and overhead positions. Successful completers should be available to pass welding qualification tests in all four welding positions with AWSE7018.

WELD 1340
Industrial Mechanics Orientation and Fundamentals
5:5:0 On Sufficient Demand
For Mechanical Repair Apprentices. Covers applied math, physics, measuring and blue print reading.

WELD 1350
Industrial Maintenance 3D
5:5:0 On Sufficient Demand
• Prerequisite: Departmental written approval
A rigging and cable machinery course for Industrial Maintenance apprentices. Teaches rigging precautions, tools and equipment, cable replacement and repair, and lifting procedures. Covers computing weight and center of gravity, troubleshooting and repair of overhead crane systems.

ART AND VISUAL COMMUNICATIONS

Department Chair: Douglas D. Anderson

Office: GT 535b
Telephone: 801-863-8262

Faculty:

Professor
- Douglas D. Anderson
- Steve Bule
- Bob deWitt
- Lawrence P. Holt
- Jon Turner

Associate Professor
- Catherine Downing

Assistant Professor
- Simon Blundell
- Jim Godfrey
- Hyunmee Lee
- Susan Parkinson
- Perry Stewart
- Mark Talbert

Advisor: Staci Owens
Office: GT 535
Telephone: 801-863-8341

School of Humanities, Arts, and Social Sciences

Dean: William W. Cobb, Jr.
Office: LA 209d
Telephone: 801-863-7435

Advisory Committee: Stephen Hales, Stephen Hales Creative, Inc.; David Canaan, SBG Partners; Sharon Grey, Springville Art Gallery; Jeff Bell, Springville High School.

PROGRAM DESCRIPTION

The Art and Visual Communications Department provides both technical and aesthetic training in the fine art, design, and illustration areas as well as traditional and computer-based graphics production processes.

The art and visual communications industries have always offered challenging and rewarding careers to artistically talented individuals. This trend will only continue in the future, but now these professions are demanding workers with both artistic as well as technical skills. Students will receive hands-on and theoretical training needed for entry level employment in this highly exciting and diversified field.

In addition to career training, the Art and Visual Communications Department provides opportunities to explore the possibilities of drawing, painting, sculpture, ceramics, or photography as elective credit or as a foundation for a career in fine art.

CAREER OPPORTUNITIES

Career opportunities are many and varied. Modern communication systems have an ever-increasing need for signs, symbols, books, brochures, labels, and innumerable other visual messages and documents. Companies employ people in such areas as offset lithography, screen printing, computer imaging, photography, pre-press composition and layout, design, and illustration. The graduate is qualified to seek employment with such organizations as advertising agencies, business or industrial graphics departments, printshops, news agencies, and other desktop publishing and computer graphics workplaces. Most larger companies also have in-house art/design departments requiring people with various artistic and technical skills.

PROGRAMS

Six options are available: a One-year Certificate, the Associate in Applied Science Degree, the Associate in Science or Arts Degree, the Bachelor of Science or Arts Degree, the Bachelor of Fine Arts Degree, and the Bachelor of Science in Technology Management Degree.

CERTIFICATE IN ART AND VISUAL COMMUNICATIONS — 30 CREDITS

Discipline Core Requirements:			**18 Credits**
• ART	1120	2D Design	3
• AVC	1400	Graphic Computer Applications	3
• ART	1110	Drawing I	3
• ART	1050	Photography	3
• ARTH	2710	History of Art to the Renaissance	3
or ARTH	2720	History of Art from the Renaissance	
• AVC	2590	Portfolio	3
Elective Requirements:			**12 Credits**
• Any AVC course not already taken (See Department Advisor)			12

AAS IN ART AND VISUAL COMMUNICATIONS — 64 CREDITS

General Education Requirements:			**16 Credits**
• ENGL	1010	Introduction to Writing	3
• MAT	1010	Intermediate Algebra*	
or ACC	1150	Fundamentals of Business Math*	3
• Social or Behavioral Science			3
• Biology or Physical Science			3
• PE or Health			1
• ARTH	2710	History of Art to the Renaissance	
• ARTH	2720	History of Art from the Renaissance	3
Discipline Core Requirements:			**15 Credits**
• ART	1120	2D Design	3
• AVC	1400	Graphic Computer Applications	3
• ART	1110	Drawing I	3
• ART	1050	Photography	3
• AVC	2590	Portfolio	3
Specialty Core Requirements:			**33 Credits**
Complete one of the following specializations (see detail below):			
• Design/Illustration			33
or Graphic Design			33
or Photography			33

Graduation Requirements:
1. Completion of a minimum of 64 semester credits.
2. Overall grade point average of 2 (C) or above. (Departments may require a higher GPA).
3. Residency hours — minimum of 20 credit hours through course attendance at UVSC.
4. Completion of GE and specified departmental requirements.

Note:
*See AVC advisor.

Design/Illustration

Specialty Core Requirements:			**22 Credits**

AAS IN ART AND VISUAL COMMUNICATIONS (CON'T) — 64 CREDITS

• AVC	1210	Illustrative Techniques	3
• AVC	1300	Graphics I	3
• AVC	1550	Typography	3
• AVC	2200	Drawing for Illustration	3
• AVC	2420	Advanced Computer Assisted Graphics	3
• AVC	2450	Image Processing with Photoshop	3
• ART	2110	Drawing II	3
• AVC	285R	Cooperative Correlated Class	1
Specialty Elective Requirements:			**11 Credits**
Complete 11 credits of any AVC courses not previously used. Students are **STRONGLY ADVISED** to fulfill this requirement with the following courses:			11
• AVC	3130	Color Theory	
• AVC	3200	Illustration	
• AVC	3220	History of Design and Visual Arts	
• AVC	361R	Figure Drawing I	

Graphic Design

Specialty Core Requirements:			**16 Credits**
• AVC	1300	Graphics I	3
• AVC	1550	Typography	3
• AVC	241R	Digital Publishing Platforms	3
• AVC	2420	Advanced Computer Assisted Graphics	3
• AVC	2450	Image Processing with Photoshop	3
• AVC	285R	Cooperative Correlated Class	1
Specialty Elective Requirements:			**17 Credits**
Complete 17 credits of any AVC courses not previously used. Students are **STRONGLY ADVISED** to fulfill part of this requirement with the following courses:			17
• AVC	3430	3D Computer Modeling	
• AVC	3440	Computer Animated Presentation Graphics	
• AVC	3460	Creating and Publishing Web Pages	
• AVC	3470	Digital Painting	

Photography

Specialty Core Requirements:			**18 Credits**
• AVC	2450	Image Processing with Photoshop	3
• AVC	2620	Photographic Darkroom Techniques	3
• AVC	2630	Photographic Camera Techniques	3
• AVC	281R	Cooperative Work Experience	8
• AVC	285R	Cooperative Correlated Class	1
Specialty Elective Requirements:			**15 Credits**
Complete 15 credits of any AVC courses not previously used. Students are **STRONGLY ADVISED** to fulfill part of this requirement with the following courses:			15
• AVC	3220	History of Design and Visual Arts	
• AVC	3710	Photography II	
• AVC	3720	Photo Lighting	
• AVC	3730	Photo Illustration	

AA PRE MAJOR IN ART AND VISUAL COMMUNICATION — 60 CREDITS

General Education Requirements:			**35 Credits**
• Complete General Education requirements as detailed in the General Education section of this catalog with AVC 2010* fulfilling the Fine Arts requirement for students seeking the Fine Art Direction.			
Discipline Core Requirements:			**15 Credits**
• ART	1120	2D Design	3
• AVC	1400	Graphic Computer Applications	3
• ART	1110	Drawing I	3
or ART	1050	Photography	
• ARTH	2710	History of Art to the Renaissance*	3
or ARTH	2720	History of Art from the Renaissance**	
• AVC	2590	Portfolio	3
Elective Requirements:			**10 Credits**
• Complete 10 Credits of the same Foreign Language			10

Graduation Requirements:
1. Completion of a minimum of 60 semester credits.
2. Overall grade point average of 2 (C) or above. (Departments may require a higher GPA.)
3. Residency hours—minimum of 20 credit hours through course attendance at UVSC.
4. Completion of GE and specified departmental requirements.
5. For the AA degree, completion of 10 credit hours of course work from one language.

Note:
*For students seeking a Fine Art Direction: AVC 2010 is required to fill the GE Fine Arts requirement, and AVC 2020 is required as part of the Discipline Core requirements.

AA PRE MAJOR IN ART AND VISUAL COMMUNICATION (CON'T) 60 CREDITS

**Students seeking a Graphics/Commercial Art Direction may take AVC 2010 or AVC 2020.

AS PRE MAJOR IN ART AND VISUAL COMMUNICATIONS 62 CREDITS

General Education Requirements: 35 Credits

- Complete General Education requirements as detailed in the General Education section of this catalog with AVC 2010* fulfilling the Fine Arts requirement for students seeking the Fine Art Direction.

Discipline Core Requirements: 18 Credits

- ART 1120 2D Design 3
- AVC 1400 Graphic Computer Applications 3
- ART 1110 Drawing I 3
- ART 1050 Photography 3
- ARTH 2720 History of Art from the Renaissance** 3
- AVC 2590 Portfolio 3

Elective Requirements: 9 Credits

Complete a minimum of 9 credits from one of the following "Directions" (check with Department Advisor before taking classes not listed below): 9

Fine Art Direction:

ART 1010 Introduction to Art
ART 1020 Basic Drawing
AVC 1520 Crafts, Methods, and Materials
AVC 1640 Painting I
AVC 1650 Introduction to Watercolor
AVC 1660 Introduction to Clay Sculpture
AVC 1670 Introduction to Ceramics
AVC 1680 Fundamentals of Fiber Design
AVC 1690 Glass Design and Construction
AVC 1700 Processes of Jewelry and Metal Design
AVC 1710 Fundamentals of Sculpture, Fabrication, and Construction
ART 2110 Drawing II
AVC 2620 Photographic Darkroom Techniques
AVC 2630 Photographic Camera Techniques
AVC 2640 Landscape Painting
AVC 3400 Fundamentals of Art Education
AVC 3540 Creativity
AVC 361R Figure Drawing I
AVC 364R Painting II
AVC 365R Watercolor II
AVC 3660 Clay Sculpture II
AVC 3670 Ceramics II
AVC 3710 Photography II
AVC 3720 Photo Lighting
AVC 3730 Photo Illustration
AVC 3740 Photoshop for Photographers
AVC 3750 Photojournalism
AVC 466R Mold Making and Casting
AVC 467R Hand Building Ceramics

Graphics/Commercial Art Direction:

Design Illustration

AVC 1210 Illustrative Techniques
AVC 1640 Painting I
AVC 1650 Introduction to Watercolor
AVC 2420 Advanced Computer Assisted Graphics
AVC 2450 Image Processing with Photoshop
ART 2110 Drawing II
AVC 3200 Illustration
AVC 3220 History of Design and Visual Arts
AVC 361R Figure Drawing I
AVC 4200 Illustration II

Graphic Design

AVC 1300 Graphics I
AVC 1550 Typography
AVC 241R Digital Publishing Platforms
AVC 2420 Advanced Computer Assisted Graphics
AVC 2450 Image Processing with Photoshop
AVC 3130 Color Theory
AVC 3430 3-D Computer Modeling
AVC 3440 Computer Animated Presentation Graphics
AVC 3460 Creating and Publishing Web Pages
AVC 3470 Digital Painting
AVC 4430 Advanced 3-D Computer Modeling and Manipulation
AVC 4460 Advanced Web Page Design
AVC 4400 Graphics II
AVC 4490 Digital Layout and Design

Photography

AVC 1300 Graphics I

AS PRE MAJOR IN ART AND VISUAL COMMUNICATIONS (CON'T) 62 CREDITS

AVC 241R Digital Publishing Platforms
AVC 2420 Advanced Computer Assisted Graphics
AVC 2450 Image Processing with Photoshop
AVC 2620 Photographic Darkroom Techniques
AVC 2630 Photographic Camera Techniques
AVC 3710 Photography II
AVC 3720 Photo Lighting
AVC 3730 Photo Illustration
AVC 3740 Photoshop for Photographers
AVC 3750 Photojournalism

Graduation Requirements:

1. Completion of a minimum of 62 semester credits.
2. Overall grade point average of 2 (C) or above. (Departments may require a higher GPA.)
3. Residency hours — minimum of 20 credit hours through course attendance at UVSC.
4. Completion of GE and specified departmental requirements.

Note:
*For students seeking a Fine Art Direction: AVC 2010 is required to fill the GE Fine Arts requirement, and AVC 2020 is required as part of the Discipline Core requirements.
**Students seeking a Graphics/Commercial Art Direction may take AVC 2010 or AVC 2020.

BA/BS IN ART AND VISUAL COMMUNICATIONS 120 CREDITS

Matriculation Requirements:

1. AA, or AS Degree or equivalent in Art and Visual Communications, or advisor approval
2. Portfolio Review

General Education Requirements: 35 Credits

- ENGL 1010 Introduction to Writing 3
- ENGL 2010 Intermediate Writing:—Humanities/Social Science 3
- or ENGL 2020 Intermediate Writing—Science and Technology

Complete one of the following: 3

- MATH 1030 Quantitative Reasoning (recommended for Humanities or Arts majors)
- MATH 1040 Introduction to Statistics (recommended for Social Science majors)
- MATH 1050 College Algebra (recommended for Business, Education, Science, and Health Professions majors)

Complete one of the following: 3

- HIST 2700 US History to 1877
- and HIST 2710 US History since 1877
- HIST 1700 American Civilization
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:

- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness
- or PES 1097 Fitness for Life 2

Distribution Courses

- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- **For BA degree:** 2020 of chosen foreign language
- or **For BS degree:** Any Humanities Distribution 3
- Fine Arts Distribution 3
- Social/Behavioral Science 3

Discipline Core Requirements: 58 Credits

- ART 1120 2D Design 3
- AVC 1400 Graphic Computer Applications 3
- ART 1110 Drawing I 3
- ART 1050 Photography 3
- ARTH 2710 History of Art to the Renaissance
- or ARTH 2720 History of Art from the Renaissance 3
- AVC 2590 Portfolio 3
- AVC 3070 20th Century Art & Architectural History
- or AVC 3220 History of Design and Visual Arts 3
- AVC 489A Senior Project 3
- AVC 489B Senior Project 3
- AVC 4900 Visual Arts Policies and Practices 3
- Complete an additional 28 AVC upper division credits not already taken 28

Elective Requirements 27 Credits

- **For BA degree:** One Foreign Language 15
- and Complete any courses 1000 level or higher 12
- or **For BS degree:** Complete any courses 1000 level or higher 27

Graduation Requirements:

1. Completion of a minimum of 120 semester credits.
2. Overall grade point average of 2 (C) or above. (Departments may require a higher GPA.)
3. Residency hours — minimum of 30 credit hours through course attendance at UVSC, 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 18 credit hours of course work from one language to include the 1010, 1020, 2010, and 2020 levels or transferred equivalents.

BFA IN ART AND VISUAL COMMUNICATIONS 121 CREDITS

Matriculation Requirements:

1. AA, AS or AAS Degree or equivalent in Art and Visual Communication
2. Portfolio Review

General Education Requirements: 35 Credits

- ENGL 1010 Introduction to Writing 3
- ENGL 2010 Intermediate Writing—Humanities/Social Science 3
- or ENGL 2020 Intermediate Writing—Science and Technology

Complete one of the following: 3

- MATH 1030 Quantitative Reasoning (recommended for Humanities or Arts majors)
- MATH 1040 Introduction to Statistics (recommended for Social Science majors)
- MATH 1050 College Algebra (recommended for Business, Education, Science, and Health Professions majors)

Complete one of the following: 3

- HIST 2700 US History to 1877
- and HIST 2710 US History since 1877
- HIST 1700 American Civilization
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:

- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness
- or PES 1097 Fitness for Life 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: 27 Credits

- ART 1120 2D Design 3
- AVC 1400 Graphic Computer Applications 3
- ART 1110 Drawing I 3
- ART 1050 Photography 3
- ARTH 2710 History of Art to the Renaissance*
- or ARTH 2720 History of Art from the Renaissance* 3
- AVC 2590 Portfolio 3
- AVC 489A Senior Project 3
- AVC 489B Senior Project 3
- AVC 4900 Visual Arts Policies and Practices 3

Specialty Core Requirements: 49 Credits

Complete one of the following emphases:

- Design/Illustration 49
- or Photography 49
- or Studio Arts 49

Elective Requirements:
10 Credits

- Any Courses 1000 or higher 10

Graduation Requirements:

1. Completion of a minimum of 121 semester credits.
2. Overall grade point average of 2 (C) or above. (Departments may require a higher GPA.)
3. Residency hours — minimum of 30 credit hours through course attendance at UVSC, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.

NOTE:
*Dependent on which course was taken in the lower division AVC core

BFA IN ART AND VISUAL COMMUNICATIONS (CON'T) 121 CREDITS

Design/Illustration Emphasis

Specialty Core Requirements: 25 Credits

Complete the following:

- ARTH 2720 History of Art from the Renaissance* 3
- AVC 3220 History of Design and Visual Arts 3
- AVC 319R Art & Visual Communications Lectures 1
- AVC 3130 Color Theory 3
- AVC 2420 Advanced Computer Assisted Graphics 3
- AVC 2450 Image Processing w/ Photoshop 3
- AVC 3430 3D Computer Graphics 3
- AVC 3440 Computer Animated Presentation Graphics 3
- AVC 3470 Digital Painting 3

Specialty Elective Requirements: 24 Credits

Choose 1 of the following 2 Options:

Graphic Design

- AVC 241R Digital Publishing Platforms 3
- AVC 1550 Typography 3
- AVC 4490 Digital Layout/Design 3
- AVC 1300 Graphics I 3
- AVC 4400 Graphics II 3
- AVC 3460 Create & Pub. Web Pg. 3
- AVC 4460 Advanced Web Page Design 3
- AVC 4430 Advanced 3D Computer Modeling and Manipulation 3

Illustration

- AVC 1210 Illustrative Techniques 3
- AVC 1640 Painting I
- or AVC 1650 Introduction to Watercolor 3
- AVC 2200 Drawing for Illustr. 3
- AVC 3200 Illustration 3
- AVC 3730 Photo Illustration 3
- AVC 4200 Illustration II 3
- AVC 361R Figure Drawing I 3
- AVC 3690 Rendering the Human Head 3

Photography Emphasis

Specialty Core Requirements: 49 Credits

Complete the following:

- ARTH 2720 History of Art from the Renaissance* 3
- AVC 3220 History of Design and Visual Arts 3
- AVC 319R Art & Visual Communications Lectures 1
- AVC 1300 Graphics I 3
- AVC 2620 Photographic Darkroom Techniques 3
- AVC 2630 Photographic Camera Techniques 3
- AVC 3720 Photo Lighting 3
- AVC 3730 Photo Illustration 3
- AVC 3710 Photography II 3
- AVC 2450 Image Processing w/ Photoshop 3
- AVC 3740 Photoshop for Photographers 3
- AVC 3750 Photojournalism 3
- Complete 15 AVC credits not already taken, 12 of which must be Upper Division 15

Studio Arts Emphasis

Specialty Core Requirements: 43 Credits

Complete the following:

ARTH 2720 History of Art from the Renaissance* 3
AVC 3220 History of Design and Visual Arts 3
AVC 319R Art & Visual Communications Lectures 1
AVC 3020 Classical Art & Architecture History
or AVC 3040 Renaissance Art History
or AVC 3050 Baroque Art & Architecture History 3
AVC 3130 Color Theory 3
AVC 1660 Introduction to Clay Sculpture
or AVC 1670 Introduction to Ceramics 3
AVC 3530 3D Design 3
AVC 3540 Creativity 3
AVC 361R Figure Drawing I 3
AVC 1520 Crafts, Methods, and Materials
or AVC 1680 Fundamentals of Fiber Design
or AVC 1700 Processes of Jewelry and Metal Design 3
AVC 1640 Painting I 3
AVC 1650 Introduction to Watercolor 3
ART 2110 Drawing II 3
Complete 6 credits of AVC Upper Division Electives not already taken 6

Specialty Elective Requirements: 6 Credits

BFA IN ART AND VISUAL COMMUNICATIONS (CON'T) 121 CREDITS

Choose 1 of the following 2 Options:

Drawing/Painting

- AVC 364R Painting II
- or AVC 365R Watercolor II 3
- AVC 3690 Rendering the Human Head 3

Sculpture/Ceramics

- AVC 3660 Clay Sculpture II
- or AVC 3670 Ceramics II 3
- AVC 466R Mold Making and Casting
- or AVC 467R Hand Building Ceramics 3

BS IN TECHNOLOGY MANAGEMENT 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Art and Visual Communications

Specialty Core Requirements: 45 Credits

- ART 1120 2D Design 3
- AVC 1400 Graphic Computer Applications 3
- AVC 3130 Color Theory 3
- Complete an additional 36 credits from the AVC courses 36

NOTES:

No upper division Technology Management (i.e. Technology Management or Business Management) course work older than six years can be counted toward graduation.

If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.

Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

ART 1010 :FF
Introduction to Visual Arts
3:3:0 Su, F, Sp

Develops an appreciation of art. Studies elements and principles of art. Includes identification of major art forms, surveys art history, art criticism, and media. Satisfies a fine arts requirement. Community members are welcome.

ART 1020 :FF
Basic Drawing
3:2:2 Su, F, Sp

For non-majors. Introduces basic drawing techniques and stresses fundamentals of observation based drawing. Includes practice and skill building. Investigates basic black and white media such as graphite and charcoal. Requires sketchbook, in-class and home work assignments. Community members welcome.

ART 1050 FF
Photography
3:2:3 Su, F, Sp

Studies basic elements of photography. Includes theory, camera operations, composition, film processing, proofing, enlarging, and methods of display. Student must provide own camera. Community members welcome.

ART 1110 FF
Drawing I
3:2:2 Su, F, Sp

For majors and non-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. Requires sketchbook, in-class and home work assignments.

ART 1120
2D Design
3:3:0 Su, F, Sp

Core course for all AVC majors. Introduces the elements and principles of design. Studies two and three dimensional formats as they relate to a series of different design problems. Uses principles such as line, shape, rhythm, contour, value, and contrast in creative assignments.

ART 2110 FF
Drawing II
3:2:2 F, Sp

- Prerequisite: ART 1110

For Art and Visual Communications Majors. Emphasizes continued mastery of drawing principles and further integration of these principles into a personal drawing style. Provides exposure to a variety of structured drawing experiences.

ARTH 2710 FF
History of Art to the Renaissance
3:3:0 F, Sp

Covers major trends in Western art from the Paleolithic period to the Gothic era, including elements of political, religious, cultural, literary, and philosophical elements as they impacted the development of art.

ARTH 2720 FF
History of Art from the Renaissance
3:3:0 F, Sp

Covers major trends in Western art, from the Renaissance through the Modern era, including elements of political, religious, cultural, literary, and philosophical elements as they impacted the creation of art.

AVC 1210
Illustrative Techniques
3:2:2 F

Introduces various techniques used in the commercial art industry. Emphasizes preparation of portfolio pieces. Explores a variety of rendering techniques, such as conte pencil, ink, scratchboard, colored pencil, and water media.

AVC 1280
Airbrush Basics
3:2:2 F, Sp
Studies basic airbrush techniques, tools and materials. Develops masking and painting skills for a wide variety of textures and effects. Includes lectures, demonstrations, and labs. Students must provide airbrush (any model) and materials.

AVC 1300
Graphics I
3:2:3 F, Sp
For most AVC majors. Introduces the broad-based production techniques of the graphics industry. Teaches layout, paste-up, stat camera operation, image assembly (stripping), proofing, plating, and basic offset presswork. Includes a historical overview of the important figures and processes in the evolution of print. Emphasizes business and personal ethics.

AVC 1310
Screen Printing I
3:2:2 F, Sp
Presents the historical development of screen printing and how it is used as a commercial printing process. Includes making of hand-cut and photo-transfer stencils; care of frames and fabric; screen printing inks; and printing on various types of substrates.

AVC 1320
Presswork
3:2:3 On Sufficient Demand
• Prerequisite: AVC 1300
Emphasizes advanced methods of imposition, platemaking, and small sheet-fed press operations, including two, three, and four color work. Covers stock selection, color matching, envelope printing, estimating, and production controls.

AVC 1400
Graphic Computer Applications
3:2:2 Su, F, Sp
Core course for all AVC majors. Introduces "Desktop Publishing." Emphasizes electronic typesetting, design, and paste-up on a personal computer workstation. Utilizes draw, paint, and specialized word processing software, on Macintosh computers for the design of brochures, newsletters, flyers, packaging, etc. Includes lab. Successful completers should have a general knowledge of the Macintosh platform.

AVC 1520
Crafts Methods and Materials
3:2:2 On Sufficient Demand
• Prerequisite: ART 1120
Emphasizes design skills used in craft media including glass, metal, wood, fibers, and composites. Covers use and safe practices for both hand and power tools. Includes historical and cultural derivation of designs and art works, through critical analysis, aesthetic import and production techniques. Community members welcome.

AVC 1550
Typography
3:3:0 F, Sp
Covers principles of type design, type faces, typesetting, specifying type, calligraphy, and publishing processes. Addresses the use of typography in modern advertising and publishing. Includes laboratory. Successful completers should have a basic understanding of typography usage.

AVC 1640 FF
Painting I
3:2:2 Su, F, Sp
• Prerequisite: ART 1110
For students with no or limited oil painting experience. Presents elementary methods and techniques of painting with oils. Students must provide all materials and equipment except easels. Requires sketchbook, in-class and homework assignments.

AVC 1650 FF
Introduction to Watercolor
3:2:2 Su, F, Sp
A beginning/intermediate level course. Studies materials, techniques, and compositional methods of watercolor painting. Teaches the application of six basic techniques for the use of transparent watercolor materials. Includes lecture/demonstration, and studio time for application and evaluation.

AVC 1660 FF
Introduction to Clay Sculpture
3:2:2 F, Sp
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. Community members welcome.

AVC 1670 FF
Introduction to Ceramics
3:2:2 Su, F, Sp
Studies clay as an expressive medium. Emphasizes techniques of working with clay, including hand building, wheel throwing, glazing, and firing. Community members welcome.

AVC 1680 FF
Fundamentals of Fiber Design
3:2:2 On Sufficient Demand
Introduces basic fiber design and construction. Includes techniques in weaving, carding, spinning, dying, batik, ikat, basketry, and felting. Students provide all materials. Community members welcome.

AVC 1690 FF
Glass Design and Construction
3:2:2 Sp
• Prerequisite: None, but AVC 1520 and ART 1110 recommended
Introduces materials, methods, and techniques of leaded glass, copper foil, and faceted glass construction. Covers design, cut, fit, and solder of glass projects. Emphasizes glass composition, historical glass and artists, critical analysis and design principles. Community members welcome.

AVC 1700 FF
Processes of Jewelry and Metal Design
3:2:2 Su, F, Sp
• Prerequisite: None, but AVC 1520 and ART 1110 recommended
Presents traditional methods and techniques of working with fine metals such as silver, gold, pewter, brass, and copper. Includes fabrication, construction, casting, enameling, and lapidary techniques. Community members welcome.

AVC 1710 FF
Fundamentals of Sculpture Fabrication and Construction
3:2:2 On Sufficient Demand
Studies basic design methods and techniques for fabrication and construction of armatures and sculptural forms of metal. Emphasizes oxyacetylene welding, brazing, metal shearing, and shaping in construction of three dimensional designs. Community members welcome.

AVC 1720 FF
Architectural Rendering
3:3:0 On Sufficient Demand
Teaches two point perspective architectural rendering. Develops exterior pictorial views from floor and elevation plans. Uses various artist mediums to add atmospheric perspective and landscape features. Successful completers should also be familiar with the use of renderings in public hearings and design reviews.

AVC 1810
Introduction to Interior Design
3:3:0 F, Sp
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.

AVC 1820
Interior Space Design
3:3:0 F, Sp
For individuals wishing to develop interior design skills, be employed in the interior design industry, or develop their own interior design business. Covers aesthetic and functional home design and space planning, "presentation" drafting and presentation techniques, "universal design," quality furniture selection, and furniture arrangements. Includes kitchen design, architectural details, background materials, color fabric construction and selection. Includes lecture, guest speakers, videos, in-class labs and field trips. Completers have prepared floor plans, color and selection boards, and make client presentations.

AVC 1830
Residential Interior Design
3:3:0 F, Sp
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.

AVC 219R
Art and Visual Communications Seminar
1-3:1-3:0-9 Su, F, Sp
Elective course for AVC students. Presents seminars and workshops from experts in industry. May range from a single weekend to a full semester. Repeatable for offerings of different content. A maximum of 3 credits may apply toward graduation.

AVC 2200
Drawing for Illustration
3:2:2 On Sufficient Demand
• Prerequisite: ART 1110
Provides students with essential drawing skills used in illustration. Introduces techniques, stylization, abstraction sketching, and memory and compositional drawing. Stresses the importance of quality reference materials and files.

AVC 231R
Screen Printing II
3:2:2 F, Sp
• Prerequisite: AVC 1310
Utilizes individual student contract to produce six multi-color images in a variety of advanced screen printing techniques. Emphasizes screen preparations, direct and indirect photo-emulsion, reduction and hand drawn methods. Incorporates advanced camera techniques and computer applications. Includes multiple color printing on cardstock, fabric, wood, and miscellaneous surfaces. May be repeated once for credit.

AVC 2320
Presswork II
3:2:3 On Sufficient Demand
• Prerequisite: AVC 1320
Pursues in-depth studies of lithographic equipment and techniques. Studies chemistry used in production processes. Includes hands-on experience and investigative field trips. Successful completers should be able to produce quality lithographs ready for consumer use.

AVC 241R
Digital Publishing Platforms
3:2:2 F, Sp
• Prerequisite: AVC 1400
Develops advanced skills in the use of Desktop Publishing software. Includes word processing, designing and importing graphics from graphics software. Studies formatting, pagination, runarounds, the use of auto-flow and electronic page layout techniques. Uses state-of-the-art software. Presents industry standards in the production of flyers, newsletters, letterheads, business forms, magazines, etc. May be repeated for six credits.

AVC 2420
Advanced Computer Assisted Graphics
3:2:2 F, Sp
• Prerequisite: AVC 1400
Develops advanced skills in computer graphics illustration and painting software. Includes advanced creative techniques for drawing, designing, painting, filling, blending, and texturing. Studies application to two-dimensional black and white, grayscale, and process color reproduction. Uses state-of-the-art software.

AVC 2450
Image Processing with Photoshop
3:2:2 F, Sp
• Prerequisite: AVC 1400
Covers the basics of generating and manipulating computer images on the Macintosh platform. Teaches beginning to advanced techniques used by professionals working with Adobe Photoshop. Includes image capture, scanning, file format conversion, color correction, resolution and printing considerations, digital photo retouching, compositing, image montages and creating stylized artwork from scanned color photos.

AVC 2510
Design II
3:3:0 On Sufficient Demand
• Prerequisite: ART 1120
A continuation of the basic design course with emphasis on preparing the student for advanced challenges in design, such as logo design, magazine layout, and package design.

AVC 2590
Portfolio
3:2:2 F, Sp
• Prerequisite: (ART 1020 or ART 1110), ART 1120, AVC 1400, AVC 3130, and AVC 1550
Teaches the selection and preparation of a portfolio and its contents for use in applying to professional art programs and for job interviews. Provides opportunities to evaluate and develop a format for professional presentations. Presents job-seeking skills pertinent to the visual arts industry. Successful completers should have a portfolio which will display the artist's work to its best advantage.

AVC 2620 FF
Photographic Darkroom Techniques
3:2:3 F
• Prerequisite: ART 1050
For students seeking advanced contemporary photographic skills. Covers advanced skills in photographic printing techniques. Studies distortion, toning, reticulation, montague, special screens, brutalization, Polaroid transfers, and liquid emulsion. Emphasizes artistic expression. Community members welcome.

AVC 2630 FF
Photographic Camera Techniques
3:2:3 F
• Prerequisite: ART 1050
For students seeking advanced contemporary camera techniques. Covers skills in camera handling. Studies double exposure, special effects, filters, flash, time exposures, light painting, emulsion transfers, found filtration, Polaroid transfers, etc. Community members welcome.

AVC 2640 FF
Landscape Painting
3:2:2 On Sufficient Demand
For majors and non-majors. 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.

AVC 2700
Drawing for Animation
3:1:6 On Sufficient Demand
• Prerequisite: ART 1110
Introduces the drawing of basic shapes and forms used to create solidly-constructed, computer-animated characters. Emphasizes understanding and communicating movement of the human form as shapes and drawing imaginatively.

AVC 281R
Cooperative Work Experience
1-8:0:5-40 On Sufficient Demand
Actual on-the-job training in cooperation with businesses and firms in the local area. Work experience credit is offered in conjunction with a correlated job preparation course (AVC 285R). For job qualified students only, with department Coop coordinator permission.

AVC 285R
Cooperative Correlated Class
1:1:0 F, Sp
For Art and Visual Communications students who wish to earn credit in cooperative work experience. Emphasizes job seeking skills such as resume writing, cover letters, interviewing techniques and portfolio development. May be repeated once for credit.

AVC 291R
Independent Study
1-3:0-3:0-9 F, Sp
• Prerequisite: Second year students only
Provides an opportunity for second year students to do individual research and experimentation within the areas of the AVC 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. A maximum of three credits may apply to graduation.

AVC 299R
VICA
1:1:0 F, Sp
For Art and Visual Communications 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 responsibility, vocational and leadership skills through participation in educational, vocational, civic, recreational, and social activities. Students may participate in local, state, and national contests. May be repeated once for credit.

AVC 3020
Classical Art and Architecture History
3:3:0 On Sufficient Demand
• Prerequisite: (ARTH 2710 or ARTH 2720) or (HUM 2010 and HUM 2020)
For Art and Visual Communications majors and other students interested in art history. 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.

AVC 3040
Renaissance Art History
3:3:0 On Sufficient Demand
• Prerequisite: (ARTH 2710 or ARTH 2720) or (HUM 2010 and HUM 2020)
For AVC majors and other interested students wtih an interest in art history. 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.

AVC 3050
Baroque Art and Architecture History
3:3:0 On Sufficient Demand
• Prerequisite: (ARTH 2710 or ARTH 2720) or (HUM 2010 and HUM 2020)
For Art and Visual Communications majors and other students with an interest in art history. 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. Includes lectures and class discussions.

AVC 3070
Twentieth Century Art and Architectural History
3:3:0 On Sufficient Demand
• Prerequisite: (ARTH 2710 or ARTH 2720) or (HUM 2010 and HUM 2020)
For Art and Visual Communications majors and other students interested in art history and the modern era. Studies leading artists, artworks, and movements. Explores the broad cultural, historical, and philosophical influences on modern and contemporary art and architecture. Includes lectures and class discussions on the modern and contemporary art and architecture.

AVC 3130
Color Theory
3:3:0 F, Sp
• Prerequisite: ART 1120
Covers theories of color, color systems, social and psychological impact of color, and the effects of colors on humankind. Assignments demonstrate the application of color theories.

AVC 319R
Art and Visual Communications Lectures
1:1:0 On Sufficient Demand
• Prerequisite: Departmental Approval
Explores diverse areas of the visual arts through weekly lectures and demonstrations. Includes presentations by professionals in the areas of studio arts, illustration, photography, and graphic design. Students will document course experiences through written and oral reports. May be repeated for up to three credits toward graduation.

AVC 3200
Illustration
3:2:2 F, Sp
• Prerequisite: ART 1120, AVC 1210 and AVC 2200
Provides experiences in creating mood and visualizing ideas through illustration. Emphasizes creativity and technical ability. Addresses illustrative concepts and problem solving.

AVC 3220
History of Design and Visual Arts
3:3:0 F
• Prerequisite: Department Approval
For Art and Visual Communications majors and other students with interest in the visual arts. Presents a history of graphic design, illustration, and photography apart from the study of traditional art history. Explores the impact of major movements, technologies, and innovations on present-day graphic design. Includes lectures, group projects, and field trips.

AVC 3400 FF
Fundamentals of Art Education
3:2:2 F, Sp
For elementary and early childhood education majors and other interested students. Introduces concepts and techniques necessary to teach broadly based art education to children. Applies the four disciplines of aesthetics, art criticism, art history, and art production in drawing, painting, sculpture, printmaking, and crafts. Includes classroom and materials management. Community members welcome.

AVC 3430
3-D Computer Modeling
3:2:2 F, Sp
• Prerequisite: AVC 1400, AVC 2420 and AVC 2450
Teaches techniques in the use of 3D computer modeling software. Studies model construction, texture mapping, scene construction, animating, and rendering of 3D computer models. Uses the Macintosh platform and state-of-the-art software such as Infini-D , Pixels 3D, Strata 3D, Poser, and Bryce.

AVC 3440
Computer Animated Presentation Graphics
3:2:2 F, Sp
• Prerequisite: AVC 1400
Teaches preparing and editing computer generated animation sequences, video clips, and sound tracks for instructional Multimedia presentations using the Macintosh computer. Uses state-of-the-art software applications such as MacroMedia Director and Sound Edit 16.

AVC 3460
Creating and Publishing Web Pages
3:2:2 F, Sp
• Prerequisite: ART 1120 , AVC 1400, and AVC 2450
Provides a thorough introduction of the Internet as a major resource and communication tool in today's world. Includes creating and publishing web pages using HTML programming and other web authority tools. Provides instruction on optimizing graphics, animation, and other media to create a fully functioning web site.

AVC 3470
Digital Painting
3:2:2 On Sufficient Demand
• Prerequisite: AVC 1400 and (AVC 241R or AVC 2420 or AVC 2450)
Develops advanced skills in producing pixel-based computer generated artwork for illustrations and other graphic communication applications. Uses the most recent version of Painter software. Covers the Painter interface; using Painter; surface control; layers; masking; mosaics and tessellations; working with shapes; special effects; color control; animation and web design using Painter.

AVC 3530
Three Dimensional Design
3:2:2 F, Sp
• Prerequisite: 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.

AVC 3540
Creativity
3:3:0 On Sufficient Demand
• Prerequisite: Department Approval
Studies the creative aspects of business, politics, arts, interpersonal relationships, philosophy, theology, and sciences. Develops an appreciation for creative problem solving. Explores case studies where nontraditional solutions were used to solve problems. Includes lecture, group discussion, guest speakers, and projects.

AVC 361R
Figure Drawing I
3:2:2 F, Sp
• Prerequisite: ART 1110 and ART 2110
Presents skills and techniques related to drawing the human figure. Uses live models. May be repeated for up to six credits toward graduation.

AVC 364R
Painting II
3:2:2 On Sufficient Demand
• Prerequisite: ART 1110 and AVC 1640
Presents advanced traditional and non-traditional oil painting techniques. Emphasizes the techniques for personal exploration. Encourages development of individual style and approach to the media. May be repeated for up to six credits toward graduation.

AVC 365R
Watercolor II
3:2:2 On Sufficient Demand
• Prerequisite: ART 1110 and AVC 1650
For students seeking intermediate and advanced techniques of transparent watercolor and/or opaque acrylic watermedia painting. Emphasizes development of technical skills, composition and color mixing. Includes lecture, demonstration, and studio time for application and evaluation. May be repeated for up to six credits toward graduation.

AVC 3660
Clay Sculpture II
3:2:2 On Sufficient Demand
• Prerequisite: AVC 1660 or Department Approval
For students seeking more advanced sculpture instruction. Teaches intermediate techniques of clay sculpture, including armature construction, bas relief, figurative sculpture based on human and animal form. Includes mold construction for casting in various media, such as hydrocal, resins, acrylic polymers, cold cast metals, etc. Completers should possess techniques to create a sculpture from clay model to finished piece. Community members welcome.

AVC 3670
Ceramics II
3:2:2 F
• Prerequisite: AVC 1670 or Department Approval
For students seeking 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. Students will provide all materials and equipment except wheels. Completers should possess the skills to create a quality finished ceramic piece. Community members welcome.

AVC 3690
Rendering the Human Head
3:2:2 On Sufficient Demand
• Prerequisite: ART 1020 or ART 1110
Designed to develop proficiency in rendering the human head in a variety of approaches and techniques. Addresses geometric and planar construction, proportion, lighting, features, and expression.

AVC 370R
Figure Structure
3:1:6 On Sufficient Demand
• Prerequisite: AVC 261R
Studies the human figure in dynamic posing and motion. Emphasizes figure-drawing skills such as extreme foreshortening, perspective, and drawing the human form in motion. May be repeated for a maximum of six credits toward graduation.

AVC 3710
Photography II
3:2:3 On Sufficient Demand
• Prerequisite: ART 1050
Continuation of Introduction to Photography. Teaches advanced techniques used with the camera and the darkroom. Emphasizes creativity. Teaches camera testing using shutter speed and depth of field as well as testing of darkroom conditions.

AVC 3720
Photo Lighting
3:2:3 Sp
• Prerequisite: ART 1050 or MCT 270R
Studies photographic studio and location lighting techniques. Includes single light set-ups, multiple lighting, direct lighting, diffused lighting, etc. Discusses types of lights with instruction in color balance and color temperature.

AVC 3730
Photo Illustration
3:2:3 Sp
• Prerequisite: ART 1050 or MCT 270R
Emphasizes conceiving, planning, and interpreting of an idea and creating that idea photographically. Studies applied or commercial aspects of photographs as they are produced for advertisement and editorial purposes.

AVC 3740
Photoshop for Photographers
3:2:2 On Sufficient Demand
• Prerequisite: AVC 1400, ART 1050, and AVC 2450
Teaches advanced techniques using Photoshop as another tool to assist the photographer. Uses techniques of scanning, down loading, photo touch-up, image manipulation, and photo restoration.

AVC 3750
Photojournalism
3:3:0 On Sufficient Demand
• Prerequisite: ART 1050
Emphasizes the techniques and processes of achieving success in photojournalism. Teaches how to communicate visually and the ethics of privacy and dealing with sensitive materials.

AVC 4200
Illustration II
3:2:2 On Sufficient Demand
• Prerequisite: AVC 2200 and AVC 3200
Provides experiences in creating mood and visualizing ideas through illustration. Emphasizes creativity. Addresses illustrative concepts and problem solving.

AVC 4400
Graphics II
3:2:2 On Sufficient Demand
• Prerequisite: ART 1120, AVC 1300, AVC 241R, and AVC 2450
Covers both traditional and electronic techniques in generation, evaluation, manipulation, and output of images for reproduction purposes. Offers hands-on experience with traditional equipment such as cameras and light tables as well as digital techniques using Macintosh computer applications. Provides experience working with pre-press professionals to prepare a portfolio representing industry practices.

AVC 4430
Advanced 3D Computer Modeling and Manipulation
3:2:2 On Sufficient Demand
• Prerequisite: AVC 2450 and AVC 3430
Teaches advanced techniques in creating and manipulating 3D computer models, using Lightwave on the Macintosh computer.

AVC 4460
Advanced Web Page Design
3:2:2 On Sufficient Demand
• Prerequisite: ART 1120, AVC 3130, and AVC 3460
Teaches advanced techniques in designing web pages, using up-to-date software applications.

AVC 4490
Digital Layout and Design
3:2:2 F, Sp
• Prerequisite: ART 1120, AVC 1400, AVC 1300, AVC 241R, and AVC 3130
Presents advanced techniques for designing and creating page layouts using the computer. Teaches principles of digital page layout with emphasis on application in the world of advertising and publishing. Covers the various steps that are needed to create a page layout from the actual conception of the design to the final print ready output. Emphasizes principles of graphic design, typeface selection, color reproduction, corporate identities, advertisements, brochures, and multi-page layouts.

AVC 466R
Mold Making and Casting
3:2:2 On Sufficient Demand
• Prerequisite: ART 1120, AVC 1660, AVC 3530 and AVC 3660
For AVC majors and others interested in mold making. Covers both theory and practice of sculptural mold making and casting of sculptural designs of multiple originals of their own works. Includes using various materials for both cold casting and lost wax casting. May be repeated for up to six credits toward graduation.

AVC 467R
Hand Building Ceramics
3:2:2 On Sufficient Demand
• Prerequisite: AVC 1670 and AVC 3670
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. Covers various types of firing processes, including bisque, raku, anagama, sagger, high fire, and overglaze, in addition to normal firing methods. May be repeated for up to six credits toward graduation.

AVC 470R
Interpretive Drawing
3:1:6 On Sufficient Demand
• Prerequisite: AVC 380R
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.

AVC 489A
Senior Project
3:2:2 On Sufficient Demand
• Prerequisite: Senior Status in AVC Major
Half of the departmental capstone requirement for Art and Visual Communications majors with senior status. Combines and integrates concepts, methodologies and skills developed in previous AVC 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.

AVC 489B
Senior Project
3:2:2 On Sufficient Demand
• Prerequisite: Senior Status in AVC Major
Half of the departmental capstone requirement for Art and Visual Communications majors with senior status. Combines and integrates concepts, methodologies and skills developed in previous AVC 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.

AVC 4900
Visual Arts Policies and Practices
3:3:0 On Sufficient Demand
• Prerequisite: Senior Status in AVC Major
For AVC 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.

AVC 491R
Independent Study
1-3:0-3:0-6 On Sufficient Demand
• Prerequisite: Department Approval
Provides an opportunity for upper division students to do individual research and experimentation within the areas of the AVC 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. A maximum of three credits may apply to graduation.

AUTOMOTIVE TECHNOLOGY

Department Chair: Doug Bradley

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Program Coordinator: Orrin Nelson
Office: SA 320
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Faculty:
Associate Professor
Todd Low
Orrin Nelson
Assistant Professor
Paul Bean
Robert Campbell

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Advisory Committee: Bri Raven, Payson Auto Care; Glenn Mitchell, Save Mor Auto; Steve Livingston, Crest Automotive; Coleman McVea, Provo High School; Rich Lamb, Timpview High School; Fred Ward, Mountain View High School; Jeff Pugh, Larry Miller, Skip Rose, Saturn; Norm Miller, Orem High School; Chris Bassett, Gene Harvey Chevrolet; Greg Powell, Powell's Auto.

School of Computing, Engineering and Technology

Dean: Thomas McFarland
Office: CS 720b
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CAREER OPPORTUNITIES

Recognizing that a successful career in automotive technology involves much more than mechanical ability to replace parts, Utah Valley State College has designed this curriculum for the individual who has ability and aptitude to become a skilled automotive technician. Opportunities are available for specialists in: general automotive repair, front end, tune-up, cooling system and air conditioning, brakes, laser wheel alignment, engine rebuilding, automatic and standard transmissions, computerized electronic ignition and fuel injection, and emission controls.

PROGRAMS

Four options are available: One-Year Certificate, Diploma, Associate in Applied Science Degree, and the Bachelor of Science in Technology Management Degree.

Reminder: an overall grade point average of 2.0 "C" or above is required for graduation.

CERTIFICATE IN AUTOMOTIVE TECHNOLOGY — 31 CREDITS

Discipline Core Requirements:			31 Credits
• AUT	1110	Brakes and Wheels	4
• AUT	1120	Manual Drive Trains and Safety	4
• AUT	1130	Engine Repair	4
• AUT	1210	Suspension, Steering and Air Conditioning	4
• AUT	1220	Automatic Transmissions and Transaxles	4
• AUT	1230	Engine Performance	4
• AUT	1260	Tech Math for Mechanics	3
• CLSS	1000	Student Success	
and CLSS	100L	Student Success Lab	
or ENGL	106A	Career Writing for Technology - A	2
• Any approved Behavioral Science, Social, or Political Science Distribution Course			2

Graduation Requirements:
1 Completion of a minimum of 31 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

DIPLOMA IN AUTOMOTIVE TECHNOLOGY — 55 CREDITS

Discipline Core Requirements:			55 Credits
• AUT	1110	Brakes and Wheels	4
• AUT	1120	Manual Drive Trains and Safety	4
• AUT	1130	Engine Repair	4
• AUT	1210	Suspension, Steering and Air Conditioning	4
• AUT	1220	Automatic Transmissions and Transaxles	4
• AUT	1230	Engine Performance	4
• AUT	2110	Advanced Alignment and Electrical Theory	4
• AUT	2120	Advanced Auto Engine Performance	4
• AUT	2130	Advanced Auto Electrical and Emission Controls	4
• AUT	2210	Advanced Auto Transmissions and Brake Systems	4
• AUT	2220	Advanced Electronics and Fuel Injection	4
• AUT	2230	Advanced Air Conditioning and Heating	4
• CLSS	1000	Student Success	
and CLSS	100L	Student Success Lab	
or ENGL	106A	Career Writing for Technology - A	2
• Any approved Behavioral Science, Social, or Political Science Distribution Course			2
• AUT	1260	Tech Math for Mechanics	3

Graduation Requirements:
1 Completion of a minimum of 55 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.

AAS IN AUTOMOTIVE TECHNOLOGY — 64 CREDITS

General Education Requirements:			16 Credits
• ENGL	1060	Career Writing for Technology (or higher)	3
• AUT	1260	Tech Math for Mechanics	3
• 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:			48 Credits
• AUT	1110	Brakes and Wheels	4
• AUT	1120	Manual Drive Trains and Safety	4
• AUT	1130	Engine Repair	4
• AUT	1210	Suspension, Steering and Air Conditioning	4
• AUT	1220	Automatic Transmissions and Transaxles	4
• AUT	1230	Engine Performance	4
• AUT	2110	Advanced Alignment and Electrical Theory	4

AAS IN AUTOMOTIVE TECHNOLOGY (CON'T) — 64 CREDITS

• AUT	2120	Advanced Auto Engine Performance	4
• AUT	2130	Advanced Auto Electrical and Emission Controls	4
• AUT	2210	Advanced Auto Transmissions and Brake Systems	4
• AUT	2220	Advanced Electronics and Fuel Injection	4
• AUT	2230	Advanced Air Conditioning and Heating	4

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 UVSC
4 Completion of GE and specified departmental requirements

AS PRE MAJOR IN AUTOMOTIVE TECHNOLOGY — 63 CREDITS

General Education Requirements: 35 Credits
• 35 credits of minimum general education requirements (see the graduation requirements in the General Education section of this catalog).

Discipline Core Requirements:	16 Credits
• Choose from AUT or related 1000 level or higher courses	16
Elective Requirements:	12 Credits
• Choose electives from 1000 level or higher courses	12

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 UVSC
4 Completion of GE and specified departmental requirements.
5 For the AA degree, completion of 10 credit hours of course work from one language.

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Automotive Technology

Specialty Core Requirements:			48 Credits
• AUT	1110	Brakes and Wheels	4
• AUT	1120	Manual Drive Trains and Safety	4
• AUT	1130	Engine Repair	4
• AUT	1210	Suspension, Steering and Air Conditioning	4
• AUT	1220	Automatic Transmissions and Transaxles	4
• AUT	1230	Engine Performance	4
• AUT	2110	Advanced Alignment and Electrical Theory	4
• AUT	2120	Advanced Auto Engine Performance	4
• AUT	2130	Advanced Auto Electrical and Emission Controls	4
• AUT	2210	Advanced Auto Transmissions and Brake Systems	4
• AUT	2220	Advanced Electronics and Fuel Injection	4
• AUT	2230	Advanced Air Conditioning and Heating	4

NOTES:
No upper division Technology Management (i.e. Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

RECOMMENDED AUTOMOTIVE COURSES

The following course is recommended for students who would like to learn more about the operation and maintenance of their vehicle.

• AUT	1000	Survey of Automotive	2

RECOMMENDED AUTOMOTIVE COURSES

The following course is recommended for the aggressive students with automotive engine experience wanting additional learning of increased horspower or for the street rod enthusiast.

- AUT 2410 High Performance Engine 3

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

AUT 1000
Survey of Automotive Technology
2:2:0 F, Sp
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 1110
Brakes and Wheels
4:2:6 F
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. Covers acetylene and mig welding with emphasis on welding safety. Includes lab experience in all areas. Taught in a five week block.

AUT 1120
Manual Drive Trains and Safety
4:2:6 F
For automotive majors and other interested community members. Studies diagnosis and repair of manual transmissions including transaxles, differentials, drive shafts, and four wheel drive components. Discusses clutch theory with torque and gear application. Teaches general and trade oriented safety common to the automotive trades. Stresses accident prevention for personal safety along with equipment safety. Includes lab experience. Taught in a five week block.

AUT 1130
Engine Repair†
4:3:5 F
For automotive majors and other interested community members. Studies construction, operation, and performances 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.

AUT 113A
Engine Repair
2:1:3 F, Sp
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, cooping systems, timing valves, and wear problems with all other parts of the engine. Includes lab experience.

AUT 113B
Engine Repair
2:1:3 F, Sp
Designed for anyone interested in small-engine repair. Includes 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 1210
Suspension Steering and Air Conditioning
4:2:6 Sp
For automotive majors and other interested community members. Studies steering and suspension components. Teaches steering, gear, rack and pinion, conventional and McPhearson strut design. Includes steering geometry, and factor of tire wear. Presents different methods of front end alignment including computerized laser alignment. Studies troubleshooting and repair of heating and air conditioning system, includes A/C evacuation and seal replacement. Discusses electrical and service tools. Includes lab experience. Taught in a five week block.

AUT 1220
Automatic Transmissions and Transaxles
4:3:5 Sp
For automotive majors and other interested community members. Studies diagnosis, repair, and adjustment of most automatic transmissions and transaxles. Covers basic planetary gearing. Includes hydraulic theory, strategies for operation, and service of GM, Ford, Chrysler, and many foreign models. Includes lab experience.

AUT 1230
Engine Performance†
4:3:5 Sp
For automotive majors and other interested community members. Studies electrical and fuel systems 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. Computerized ignition and fuel injection will also be studied. Includes lab experience.

AUT 123A
Engine Performance
2:1:3 F
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
2:1:3 Sp
Includes advanced instruction in engine performance, starting systems, charging systems, and indicator ciruits. Discusses all mechanical and electronic parts of the vehicle relative to quality engine tune-up and diagnostic instruction. Includes lab experience.

AUT 1260
Tech Math for Mechanics
3:3:0 F, Sp
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 2110
Advanced Alignment and Electrical Theory
4:1.5:7 F
- Prerequisite: AUT 1000 series classes

Presents advanced theory of laser alignment and electrical accessories. Studies mechanical, electronic, and electrical parts of automotive engine including fuel injection and electronic emission controls. Includes lab experience.

AUT 2120
Advanced Auto Engine Performance
4:1.5:7 F
- Prerequisite: AUT 1000 series classes

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. Taught in a five week block.

AUT 2130
Advanced Auto Electrical and Emission Controls
4:1.5:7 F
• Prerequisite: AUT 1000 series classes
Studies emissions control devices on American and foreign vehicles. Reviews state emissions certification requirements. Includes instruction on auto accessories such as wipers, cruise control systems, air bags, and ABS brakes systems. Includes lab experience. Taught in a five week block.

AUT 2210
Advanced Auto Transmissions and Brake Systems
4:1.5:7 Sp
• Prerequisite: AUT 1000 series courses
Includes advanced instruction in automatic transmissions including GM, Ford, Chrysler, and foreign makes. Studies computerized transmission controls of shifting and torque converter lock-ups. Covers electrical and mechanical operation of anti-lock brake systems (ABS brakes). Includes lab experience.

AUT 2220
Advanced Electronics and Fuel Injection
4:1.5:7 Sp
• Prerequisite: AUT 1000 series classes
Includes advanced instruction on computerized fuel injection with emphasis on distributorless ignition. Studies electronic and mechanical sensors of fuel and ignition systems. Covers basic gas and diesel engine design and repair. Also covers alternative fuel vehicles. Includes lab experience. Taught in a five week block.

AUT 2230 (Cross-listed as DMT 2230)
Air Conditioning and Heating
4:1.5:7 Sp
• Prerequisite: AUT 1000 series classes or DMT 1510 and DMT 1520
Teaches advanced air conditioning and heating with some emphasis on electronics and computerized engine systems and fuel injection. Includes lab experience. Taught in a five week block.

AUT 2410
High Performance Engine Class
3:2:3 F, Sp
• Prerequisite: AUT 1130, AUT 1230
For automotive and street rod technology majors and other community members interested in high performance engines. Studies engines and modifications that provide optimum horsepower for a variety of performance needs. Examines engine balancing, blue printing, porting, and polishing. Explores computer controlled fuel management examines nitrous oxide, turbo and supercharging. Includes projects, field trips. Completers should be able to understand and perform maintenance on new technology for high performance engines.

AUT 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: 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.

AUT 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: 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
VICA
1:1:0 F, Sp
Designed for Automotive 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. May be repeated as desired for interest.

AVIATION SCIENCE

Director:

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Operations Office: Provo Municipal Airport

Assistant Director Flight Training:

Rich Crandall
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Office Manager/Advisor Global Aviation Internet:
Mollie Bridges
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Advisory Committee: Chair, Captain Mario Jimenez, Federal Express; Captain David Comish, Kingsley; 1st Officer Aaron Kennington, SkyWest Airlines; Mr. Errol Bader, Diamond Aircraft; Mr. Ed Helmick, Assistant to the Director; Mr. Brice Williams, Faculty; Captain Kory Morgan, Southwest Airlines; Rich Crandall, Colonel Retired USAF; Steve Smith, Chief Pilot UVSC; Jim Pyles, Federal Aviation Administrations.

School of Computing, Engineering and Technology

Dean: Thomas McFarland
Office: CS 720b
Telephone: 801-863-8995

FLIGHT PREREQUISITE

An aviation placement exam and oral interview with an aviation advisor is required. Also a class II Medical Certificate exam with an FAA designated Medical Examiner. This is to be completed prior to entering the flight phase of the program to evaluate each student's qualifications and special needs.

CAREER OPPORTUNITIES

Currently there is a record demand for college-trained professional pilots for commuter, regional, and major air carrier employment. This demand should continue through 2015. Pilots and aviation/aerospace personnel work in highly technical and practical scientific environments on a daily basis and have responsibility for operating single engine and multi-engine; turbo-prop and jet aircraft in all weather conditions both day and night. Some jobs available are Charter and Air Taxi Pilot, University Flight Instructor, aerial photography and surveying, Military, Bush Pilot and remote re-supply, Aero medical evacuation, fire spotting and fighting, Federal Government-Forest Patrol, Drug Enforcement, FAA Safety Inspectors, Pipeline and Transmission Line Patrol, recreation and sight-seeing pilot, police and traffic control, research and development, flight test, airplane sales and demonstration and commercial airline pilot. Graduates of the Associate in Applied Science or Associate in Science are qualified to become a commercial pilot or certified flight instructor and should qualify for entry into a four-year degree program for upper division course work. Graduates of the Bachelor of Science in Aviation Professional Pilot (B.S.) are qualified to be hired by a major airline after obtaining adequate flight hours. Graduates are also qualified to be corporate and military pilots. Individuals who complete our Associate in Aviation Science constitute the majority of program employed flight instructors.

All students must complete a minimum of a commercial pilot certificate, issued by the Federal Aviation Administration to obtain any of the aviation degrees.

PROGRAMS

Students graduating with an AAS or AS in Aviation may transfer to UVSC's Bachelor in Aviation Professional Pilot, or the Bachelor of Science in Technology Management with an emphasis in Aviation Science, for completion of a four-year degree.

Reminder: an overall grade point average of 2.0 (C) or above is required for graduation.

AAS IN AVIATION SCIENCE — 65 CREDITS

General Education Requirements:			**18 Credits**
• ENGL	1010	Introduction to Writing	3
• MAT	1010	Intermediate Algebra	4
• PHIL	2050	Ethics and Values	3
or Any other Humanities			
• POLS	1000	American Heritage	3
or HIST	1700	American Civilization	
or Any other Social Science			
• Any approved Biology or Physical Science Distribution Course			3
• HLTH	1100	Personal Health and Wellness (recommended)	2
Discipline Core Requirements:			**47 Credits**
• AVSC	1010	Survey of Aviation Science	2

AAS IN AVIATION SCIENCE (CON'T) — 65 CREDITS

• AVSC	1100	Ground Private Pilot	3
• AVSC	1110	Flight Private Pilot Certification	3
• AVSC	1220	Ground Commercial Pilot - Phase I	1
• AVSC	1230	Flight Commercial Pilot - Phase I	3
• AVSC	1240	Ground Instrument Pilot	2
• AVSC	1250	Flight Instrument Pilot Rating	2
• AVSC	2150	Air Transportation Management	3
• AVSC	2160	Aviation Law	3
• AVSC	2300	Ground Commercial Pilot - Phase II	2
• AVSC	2310	Flight Commercial Pilot - Phase II	3
• AVSC	2440	Ground Multi-Engine	1
• AVSC	2450	Flight Multi-Engine	1
• AVSC	281R	Cooperative Work Experience*	8
• AVSC	285R	Cooperative Related Class	1
Complete one of the following sets of courses:			9
Certified Flight Instructor			
• AVSC	2330	Theory of Instruction	
• AVSC	2400	Ground Certified Flight Instructor	
• AVSC	2410	Flight Certified Flight Instructor	
• AVSC	2420	Ground CFI Instrument	
• AVSC	2430	Flight CFI Instrument	
• AVSC	2500	Ground Multi-Engine Instructor	
• AVSC	2510	Flight Multi-Engine Instructor	
First Officer			
• AVSC	3300	Jet Transport Systems	
• AVSC	3600	Crew Resource Management/ Human Factors	
• AVSC	4200	Ground Turbine Transition	
Aviation Management (Choose 9 credits)			
• AVSC	3020	Aviation Insurance and Risk Management	
• AVSC	3100	Corporate Aviation Management	
• AVSC	3120	Airport Management	
• AVSC	3140	Fixed Base Operations Management	
Air Traffic Control			
• AVSC	3030	Air Traffic Control	
• AVSC	3040	Air Traffic Control II	
• AVSC	3600	Crew Resource Management/ Human Factors	

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 UVSC
4. Completion of GE and specified departmental requirements
5. Completion of Commercial Pilot Certificate.

*One credit from AVSC 1020 Aircraft Identification may be substituted for one of cooperative work experience.

AS PRE MAJOR IN AVIATION SCIENCE — 61 CREDITS

General Education Requirements:			**35 Credits**
• Complete General Education requirements as detailed in the General Education section of this catalog.			
Discipline Core Requirements:			**21 Credits**
• AVSC	1010	Survey of Aviation Science	2
• AVSC	1100	Ground Private Pilot	3
• AVSC	1110	Flight Private Pilot Certification	3
• AVSC	1220	Ground Commercial Pilot - Phase I	1
• AVSC	1230	Flight Commercial Pilot - Phase I	3
• AVSC	1240	Ground Instrument Pilot	2
• AVSC	1250	Flight Instrument Pilot Rating	2
• AVSC	2300	Ground Commercial Pilot - Phase II	2
• AVSC	2310	Flight Commercial Pilot - Phase II	3
Elective Requirements:			**5 Credits**
Complete five credits from the following:			
• AVSC	1020	Aircraft Identification	
• AVSC	2150	Air Transportation Management	
• AVSC	2160	Aviation Law	
• AVSC	2330	Theory of Instruction	
• AVSC	2400	Ground Certified Flight Instructor	
• AVSC	2410	Flight Certified Flight Instructor	
• AVSC	2420	Ground CFI Instrument	
• AVSC	2430	Flight CFI Instrument	
• AVSC	2440	Ground Multi-Engine	
• AVSC	2450	Flight Multi-Engine	

Graduation Requirements:

1. Completion of a minimum of 61- 73 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 UVSC.

AS PRE MAJOR IN AVIATION SCIENCE — 61 CREDITS

4 Completion of GE and specified departmental requirements.
5 Completion of Commercial Pilot Certificate.

BS IN AVIATION PROFESSIONAL PILOT — 120 CREDITS

General Education Requirements:			35 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2020	Intermediate Writing—Science and Technology	3
Complete one of the following:			3
• MATH	1030	Quantitative Reasoning (recommended for Humanities or Arts majors)	
• MATH	1040	Introduction to Statistics (recommended for Social Science majors)	
• MATH	1050	College Algebra (recommended for Business, Education, Science, and Health Professions majors)	
Complete one of the following:			3
• HIST	1700	American Civilization	
• HIST	2700	US History to 1877*	
and HIST	2710	US History since 1877*	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health and Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses			
• Biology			3
• Physical Science (PHYS 1010 recommended)			3
• Additional Biology or Physical Science (METO 1010 recommended)			3
• Humanities Distribution (COMM 1020 recommended)			3
• Fine Arts Distribution			3
• Social/Behavioral Science (PSY 1010 recommended)			3
Discipline Core Requirements:			68 Credits
• AVSC	1010	Survey of Aviation Science	2
• AVSC	1100	Ground Private Pilot	3
• AVSC	1110	Flight Private Pilot Certification	3
• AVSC	1220	Ground Commercial Pilot—Phase I	1
• AVSC	1230	Flight Commercial Pilot—Phase I	3
• AVSC	1240	Ground Instrument Pilot	2
• AVSC	1250	Flight Instrument Pilot Rating	2
• AVSC	2150	Air Transportation Management	3
• AVSC	2160	Aviation Law	3
• AVSC	2300	Ground Commercial Pilot - Phase II	2
• AVSC	2310	Flight Commercial Pilot - Phase II	3
• AVSC	2440	Ground Multi-Engine	1
• AVSC	2450	Flight Multi-Engine	1
• AVSC	281R	Cooperative Work Experience	6
• AVSC	285R	Cooperative Related Class	1
• AVSC	3010	Flight Environment	3
• AVSC	3030	Air Traffic Control	3
• AVSC	3200	Flight Physiology	3
• AVSC	3300	Jet Transport Systems	3
• AVSC	3400	High Altitude Navigation/International Flight Operations	3
• AVSC	3530	Advanced Aerodynamics	3
• AVSC	3600	Crew Resource Management/ Human Factors	3
• AVSC	485R	Cooperative Related Class	1
• AVSC	490R	Safety and Professional Seminars	2
Complete 8 credits from the following:			8
• AVSC	481R	Cooperative Work Experience (minimum of 2 credits)	
• AVSC	491R	Undergraduate Research Project (minimum of 3 credits)	
Elective Requirements:			17 Credits

Complete 17 credits from the following courses (8 credits must be upper division)

- AVSC 1020 Aircraft Identification
- AVSC 2330 Theory of Instruction
- AVSC 2400 Ground Certified Flight Instructor
- AVSC 2410 Flight Certified Flight Instructor
- AVSC 2420 Ground CFI Instrument
- AVSC 2430 Flight CFI Instrument
- AVSC 2500 Ground Multi-Engine Instructor
- AVSC 2510 Flight Multi-Engine Instructor
- AVSC 3020 Aviation Insurance and Risk Management
- AVSC 3040 Air Traffic Control II

BS IN AVIATION PROFESSIONAL PILOT (CON'T) — 120 CREDITS

- AVSC 3100 Corporate Aviation Management
- AVSC 3120 Airport Management
- AVSC 3140 Fixed Base Operations Management
- AVSC 4200 Ground Turbine Transition
- AVSC 4210 Flight Turbine Transition
- AVSC 4300 Ground Airline Transport Pilot/Aircraft Dispatcher
- AVSC 4310 Flight Airline Transport Pilot

Graduation Requirements

1 Completion of a minimum of 120 semester credits, with a minimum of 40 upper division 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 UVSC, with at least 10 hours earned in the last 45 hours.
4 Completion of GE and specified departmental requirements including successful completion of the Class 1 FAA medical exam.
5 Completion of Commercial Pilot Certificate.

NOTE:
*If student chooses HIST 2700 and 2710, the additional hours may be used towards a social science distribution requirement.

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Aviation Science

Specialty Core Requirements:			36 Credits
• AVSC	1010	Survey of Aviation Science	2
• AVSC	1100	Ground Private Pilot	3
• AVSC	1110	Flight Private Pilot Certification	3
• AVSC	1220	Ground Commercial Pilot - Phase I	1
• AVSC	1230	Flight Commercial Pilot - Phase I	3
• AVSC	1240	Ground Instrument Pilot	2
• AVSC	1250	Flight Instrument Pilot Rating	2
• AVSC	2150	Air Transportation Management	3
• AVSC	2160	Aviation Law	3
• AVSC	2300	Ground Commercial Pilot - Phase II	2
• AVSC	2310	Flight Commercial Pilot - Phase II	3
• AVSC	2440	Ground Multi-Engine	1
• AVSC	2450	Flight Multi-Engine	1
• AVSC	281R	Cooperative Work Experience	3
• AVSC	285R	Cooperative Related Class	1
• METO	1010	Introduction to Meteorology	3
Specialty Elective Requirements:			9 Credits
• AVSC	1020	Aircraft Identification	
• AVSC	2330	Theory of Instruction	
• AVSC	2400	Ground Certified Flight Instructor	
• AVSC	2410	Flight Certified Flight Instructor	
• AVSC	2420	Ground CFI Instrument	
• AVSC	2430	Flight CFI Instrument	
• AVSC	2500	Ground Multi-Engine Instructor	
• AVSC	2510	Flight Multi-Engine Instructor	
• AVSC	3020	Aviation Insurance and Risk Management	
• AVSC	3100	Corporate Aviation Management	
• AVSC	3120	Airport Management	
• AVSC	3140	Fixed Base Operations Management	

NOTES:
No upper division Technology Management (i.e. Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.
Completion of Commercial Certificate.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.

Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

AVSC 1010 — GP
Survey of Aviation Science
2:2:0 — Su, F, Sp

Designed for all students interested in career opportunities in Aviation Science and general knowledge of aviation and aerospace studies. Includes historical events in aviation and aerospace development. Studies aviation and aerospace terminology, how airplanes and spacecraft fly, research and development of future systems, government and industry roles in the growth of aviation, and potential careers in aviation. Includes a field trip and several interesting and exciting projects.

AVSC 1020
Aircraft Identification
1:1:0

Introduces skills of aircraft recognition and identification. Teaches identification of aircraft types and purposes available in the aviation world. Develops increased safety skills and the ability to correlate identifications to speed.

AVSC 1100
Ground Private Pilot
3:3:1 — Su, F, Sp

- Corequisite: AVSC 1110

Designed for entry level student pilots. Introduces the airplane to students as they prepare for flight training. Stresses airport systems, air traffic control procedures, aviation weather, air navigation, radio communication procedures, and federal aviation regulations. Prepares the student for the FAA Private Pilot written examination. Lab activities will provide opportunity for viewing practical application of required pilot proficiency skills.

AVSC 1110
Flight Private Pilot Certification
3:3:1 — Su, F, Sp

- Corequisite: AVSC 1100

Provides the entry level aviation student with 20 hours of dual flight instruction and 15 hours of solo practical flight experience for private pilot certification. Covers airplane ground operation, take-off and landing, all basic flight maneuvers, and emergency procedures. Provides practice in a training airplane. Designed to meet the flight experience requirements for the FAA Private Pilot Flight check.

AVSC 1220
Ground Commercial Pilot—Phase I
1:1:1 — Su, F, Sp

- Prerequisite: MAT 1010, ENGL 1010 or equivalent, AVSC 1100 and AVSC 1110
- Corequisite: AVSC 1230

Designed to give the more experienced private and instrument rated pilot ground classroom instruction in preparation for commercial cross-

country flight operations. Stresses advanced VFR navigation using dead reckoning, pilotage and radios, flight planning, aircraft performance, weight and balance, aircraft systems, night operations, and emergency procedures for cross-country flight. Includes Federal Aviation Regulations for Commercial pilots, advanced aircraft navigational systems, and decision making. Lab activities will provide opportunity for viewing practical application of required pilot proficiency skills.

AVSC 1230
Flight Commercial Pilot—Phase I
3:1:5 Su, F, Sp
• Prerequisite: AVSC 1100, AVSC 1110
• Corequisite: AVSC 1220
Provides more experienced private and instrument rated pilots with 54 hours of dual and solo flight instruction and experience to meet FAA Commercial 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.

AVSC 1240
Ground Instrument Pilot
2:2:1 Su, F, Sp
• Prerequisite: AVSC 1100, AVSC 1110
• Corequisite: AVSC 1250
Designed to prepare private pilots for the Federal Aviation Administration Instrument Pilot written test. Includes FAA regulations, meteorology, navigation, radio procedures, instrument departures, en route and approach procedures, the instrument airway, and airspace systems as well as aircraft systems operation. Covers basic flight instrument construction and operation. Lab activities will provide opportunity for viewing practical application of required pilot proficiency skills.

AVSC 1250
Flight Instrument Pilot Rating
2:2:1 Su, F, Sp
• Prerequisite: AVSC 1100, AVSC 1110
• Corequisite: AVSC 1240
Provides the private pilot student with 35 hours of dual flight instruction. Stresses attitude instrument flying techniques, instrument departure and approach procedures, and instrument en route and cross-country navigation techniques while in actual or simulated weather conditions with reference solely to the flight instruments. Prepares the student for the FAA instrument pilot rating flight test.

AVSC 2150
Air Transportation Management
3:3:0 Su, F, Sp
For advanced commercial flight students. Presents the management skills necessary to be a fixed based 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. Includes a student's simulated model of an FBO and related management operations as a final project. Successful completers should have a basic knowledge of aviation management.

AVSC 2160
Aviation Law
3:3:0 Su, F, Sp
For the beginning commercial pilot. Introduces aviation law and regulations. Studies rights and responsibilities of a pilot in command of an aircraft while operating in a commercial revenue generated environment. Discusses the history of commercial aviation, Air Commerce Act, and government regulatory agencies. Successful completers should have a basic knowledge of federal, state, and international law in order to comply with Federal Aviation Regulations.

AVSC 2300
Ground Commercial Pilot—Phase II
2:2:1 Su, F, Sp
• Prerequisite: AVSC 1220, AVSC 1230
• Corequisite: AVSC 2310
Designed for Commercial Pilot students in preparation for the FAA commercial pilot written exam. Covers advanced maneuvers such as steep power turns, steep spirals, chandelles, lazy eights, and pylon eights. Uses ground classroom instruction and illustrated lecture, video tape presentations, and demonstration using model airplanes. Studies engine fuel injection and turbo charging, constant speed propellers, retractable landing gear, and ice control systems. Lab activities will provide opportunity for viewing practical application of required pilot proficiency skills.

AVSC 2310
Flight Commercial Pilot—Phase II
3:2:3 Su, F, Sp
• Prerequisite: AVSC 1220, AVSC 1230
• Corequisite: AVSC 2300
Designed for an additional 66 hours of dual and solo flight instruction in advanced complex airplanes. For more experienced pilots in preparation for the Commercial Pilot Flight test certification. Lab for maneuvers such as steep power turns, steep spirals, slow flight, lazy eights, pylon eights, and chandelles. Includes commercial cross-country, instrument flying skills, and emergency procedures. Prepares student for the FAA Commercial Pilot Flight test.

AVSC 2330
Theory of Instruction
1:1:0 Su, F, Sp
• Prerequisite: Commercial Pilot student experience and permission of the instructor
Designed for advanced pilots preparing for Flight Instructor rating. Stresses psychology of learning and the ability to evaluate student learning. Analyzes student needs and rates of learning. Provides instructional communication techniques. Requires writing a lesson plan which includes learning objectives, methods of instruction, media selection and adaptation, and teaching.

AVSC 2400
Ground Certified Flight Instructor
3:3:0 Su, F, Sp
• Prerequisite: AVSC 2300, AVSC 2310, AVSC 2330
• Corequisite: AVSC 2410
Designed for advanced pilots preparing for the Flight Instructor rating. Includes in-depth study of aerodynamics, flight maneuvers, Federal Aviation Regulations and airplane operations and systems, with an emphasis on teaching this knowledge to other pilots. Stresses oral and written communication skills as well as student records and reports needed for flight instruction. Completers should be prepared to sit for the FAA Certified Flight Instructor (CFI) written exams.

AVSC 2410
Flight Certified Flight Instructor
1:1:1 Su, F, Sp
• Prerequisite: AVSC 2300, AVSC 2310, AVSC 2330
• Corequisite: AVSC 2400
Designed for advanced pilots preparing for the Flight Instructor rating. Students will receive 20 hours of dual flight instruction and experience in teaching the basic night maneuvers and airplane operations from the right seat of the training airplane. Student will discuss each maneuver while precisely performing the maneuver and maintaining proper operation practice in flight. Includes identifying common student errors and correcting them. Prepares the student for the Federal Aviation Administration's CFI flight test.

AVSC 2420
Ground CFI Instrument
1:1:0 Su, F, Sp
• Prerequisite: AVSC 2400, AVSC 2410
• Corequisite: AVSC 2430
Designed for Instructor Pilots preparing for the addition of an Instrument Instructor rating. Stresses in-depth study of gyroscopic and pressure instruments, attitude instrument flying techniques, IFR departure, enroute, arrival and approach procedures, and the teaching of this to other pilots. Discusses Federal Aviation Regulations that apply to instrument flight instruction, flight log book endorsements and entries, and other directives and publications that apply to instrument flight. Studies the correct procedures for teaching and analyzing student errors while performing the required instrument flight maneuvers. Upon successful completion, the student will be recommended for the FAA Certified Flight Instructor/Instrument written exam.

AVSC 2430
Flight CFI Instrument
1:1:1 Su, F, Sp
• Prerequisite: AVSC 2400, AVSC 2410
• Corequisite: AVSC 2420
Designed for instructor pilots seeking the CFI Instrument rating. Includes 20 hours of dual flight instruction and experience in teaching instrument flight skills. 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 the student for the CFI Instrument Pilot rating flight test.

AVSC 2440
Ground Multi-Engine
1:1:1 Su, F, Sp
• Prerequisite: Instructor's recommendation
• Corequisite: AVSC 2450
Designed for advanced pilots preparing for commercial multi-engine operations. Covers the theory of multi-engine flight and the significant aerodynamic difference between single-engine and multi-engine flight. Includes system operation of constant speed propellers, multi-tank and pump fuel systems, dual electrical systems, turbocharger and ice control systems. Discusses multi-engine weight and balance and use of performance charts. Prepares the student for the FAA Multi-Engine airplane Pilot oral exam.

AVSC 2450
Flight Multi-Engine
1:1:1 Su, F, Sp
• Prerequisite: Instructor's recommendation
• Corequisite: AVSC 2440
Designed for advanced pilots preparing for commercial multi-engine operations. Includes sufficient flight instruction and experience in heavy complex multi-engine airplanes to qualify for the multi-engine pilot rating. 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 every type of flight environment and situation. Discusses complex systems operation as well as instrument flight procedures. Prepares the student for the FAA multi-engine airplane flight test.

AVSC 2500
Ground Multi-Engine Instructor
1:1:0 Su, F, Sp
• Prerequisite: AVSC 2410, AVSC 2450
• Corequisite: AVSC 2510
For advanced commercial multi-engine pilots with a single engine certified flight instructor rating. Presents specific teaching techniques and skills necessary to certify as a flight instructor with a multi-engine land rating. Includes a review of the multi-engine pilot certification requirements. Stresses the unique responsibilities of an instructor demonstrating flight at minimal control speed.

AVSC 2510
Flight Multi-Engine Instructor
1:1:0 Su, F, Sp
Prerequisite: AVSC 2410, AVSC 2450
• Corequisite: AVSC 2500
For advanced commercial multi-engine pilots with a single engine certified flight instructor rating. Provides flight training and experience in multi-engine aircraft. Includes demonstration, under supervision of an M.E.I., the various pilot maneuvers and operations necessary to instruct a licensed single-engine pilot for the FAA multi-engine flight test. Includes normal and emergency flight operations and procedures in all the various flight environments and regimes. Completers should have knowledge and skill to operate a multi-engine aircraft safely while instructing student multi-engine pilots and have the required multi-engine experience to qualify for the FAA flight test.

AVSC 281R
Cooperative Work Experience
1 to 8:1:5 to 40 Su, F, Sp
• Corequisite: AVSC 285R
Designed for Aviation 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.

AVSC 285R
Cooperative Related Class
1:1:0 Su, F, Sp
• Corequisite: AVSC 281R
This course is designed to identify on-the-job opportunities and problems of cooperative work experience students, and provide opportunities for in-class discussion and study.

AVSC 3010
Flight Environment
3:3:0 Su, F, Sp
• Prerequisite: Commercial Pilot Certificate
For the commercial pilot with an Instrument rating. 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.

AVSC 3020
Aviation Insurance and Risk Management
3:3:0 On Sufficient Demand
• Prerequisite: AVSC 2150, AVSC 2160
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
3:3:0 Su, F, Sp
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. Includes lecture, discussion, small group practice, and evaluation.

AVSC 3040
Air Traffic Control II
3:3:0 On Sufficient Demand
• Prerequisite: AVSC 3030
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.

AVSC 3100
Corporate Aviation Management
3:3:0 On Sufficient Demand
• Prerequisite: AVSC 2150
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 3120
Airport Management
3:3:0 On Sufficient Demand
• Prerequisite: AVSC 2150
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
3:3:0 On Sufficient Demand
• Prerequisite: AVSC 2150
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 3200
Flight Physiology
3:3:0 Su, F, Sp
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 3300
Jet Transport Systems
3:3:0 Su, F, Sp
• Prerequisite: AVSC 2440, Commercial Pilot Certificate
For the commercial pilot desiring training in 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 3400
High Altitude Navigation/International Flight Operations
3:3:0 Su, F, Sp
• Prerequisite: AVSC 3300
Covers the advanced navigation systems of commercial aircraft. Explores VOR/DME, Loran-C, IRS (three ring laser gyro), and GPS navigational aids. Teaches the operation of the "Glass Cockpit" flight data center. Explains international flight operations. Uses in class lectures, demonstrations, individual experimentation, and computer based trainer experience.

AVSC 3530
Advanced Aerodynamics
3:3:0 Su, F, Sp
• Prerequisite: AVSC 3300
For commercial pilots. Teaches the aerodynamics involved in commercial aircraft. Includes aircraft turning and accelerated climb performance, take off velocity, load factors, hypersonic flight, and laminar flow airfoils. Includes demonstration, examples, experiments, and class discussion.

AVSC 3600
Crew Resource Management/Human Factors
3:3:0 Su, F, Sp
• Prerequisite: Commercial Pilot Certificate
Explores concepts of Crew Resource Management (CRM) employed by commercial airlines. Covers crew coordination, communication, and resource management in a professional airline atmosphere. Utilizes class discussions, role plays, lecture, guest lecturers, and group experiences.

AVSC 4200
Ground Turbine Transition
3:3:0 Su, F, Sp
• Prerequisite: AVSC 3300, AVSC 3530
• Corequisite: AVSC 4210
For commercial pilots desiring a Citation type rating. Teaches operating practices of the Citation jet, along with systems indoctrination, and procedures training. Utilizes lecture, demonstration, and cockpit procedures trainers. Successful completers should be prepared to pass the FAA Citation type rating oral exam.

AVSC 4210
Flight Turbine Transition
1:0:3 Su, F, Sp
• Corequisite: AVSC 4200
Provides practical experience in preparation for the FAA Citation type rating practical exam. Teaches start up, taxi, take-off, en-route, approach, landing, shutdown, and emergency procedures. Utilizes individualized instruction in a cockpit procedures trainer, simulator, and Citation jet.

AVSC 4300
Ground Airline Transport Pilot/Aircraft Dispatcher
3:3:0 Su, F, Sp
• Prerequisite: Commercial Pilot Certificate, Instrument Rating
For the commercial pilot preparing for the FAA Airline Transport Pilot (ATP) written exam and the Aircraft Dispatcher written exam. Covers FAA part 121 and 135 regulations. Includes class discussion, lecture, sample test questions, and group projects. Successful completers should be prepared to pass both the FAA ATP and Aircraft Dispatcher written exams.

AVSC 4310
Flight Airline Transport Pilot
1:0:3 Su, F, Sp
• Prerequisite: AVSC 4300
For students with 1500 hours total flight time preparing for the Airline Transport Pilot (ATP) practical exam. Teaches skills to pass an ATP check ride administered by a FAA designated examiner. Covers pre-flight, departure, en-route, arrival, post flight, and emergency procedures in both day and nighttime flight environments. Utilizes personalized flight instruction in both a flight simulator and aircraft.

AVSC 481R
Cooperative Work Experience
1 to 8:0:5 to 40 Su, F, Sp
• Prerequisite: Instructor approval
• Corequisite: AVSC 485R
For upper division Aviation majors. Provides on the job work experience that will utilize student's skills and abilities in the field of Aviation. 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 twice for credit.

AVSC 485R
Cooperative Related Class
1:1:0 Su, F, Sp
• Prerequisite: Instructor approval
• Corequisite: AVSC 481R
For upper division Aviation Science majors. Identifies on the job managerial problems through class discussion and study. Teaches resume and job interview letter writing, interview techniques, and personal and career goal setting. Includes lecture, guest speakers, case analysis, role playing, oral presentations, and written assignments. May be repeated twice for credit.

AVSC 490R
Safety and Professional Seminars
2:2:0 Su, F, Sp
• Prerequisite: Matriculation into Aviation Professional Pilot Bachelor's Degree Program
Designed for pilots planning a professional career in commercial aviation. Includes FAA safety seminars and other professional presentations designed to inform the commercial pilot of safety and professional issues affecting employment. Features FAA safety counselors, and other aviation professionals as guest lecturers. May be repeated twice to qualify for graduation.

AVSC 491R
Undergraduate Research Project
3 to 6:2:3 to 12 Su, F, Sp
• Prerequisite: Department Approval
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 six credits.

BEHAVIORAL SCIENCE

Department Chair: David Yells

Office: LA 012b
Telephone: 801-863-8083 or 801-863-8585

Faculty:

Professor
- Kathy French
- Norma Gould
- Ron Hammond
- Grant Richards

Associate Professor
- Steven Clark
- Mark Jeffreys
- Cameron John
- David Knowlton
- Alex Simon
- David Yells

Assistant Professor
- Grace Chou
- Joylin Namie
- Barton Poulson

Department Advisor: Hannah Thomson
Office: LA 012e
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School of Humanities, Arts, and Social Sciences

Dean: William W. Cobb, Jr.
Office: LA 209d
Telephone: 801-863-7435

The UVSC Behavioral Science Department offers classes that fulfill the social science distribution requirements for graduation, the Behavioral Science pre major for the associate degree, and the Behavioral Science major for the bachelor degree (with an emphasis in Anthropology, Psychology, Social Work or Sociology). Students enrolled in the Integrated Studies bachelor degree may also select Behavioral Science, Psychology, or Sociology as an emphasis. See the Integrated Studies section in this catalog for more information related to the Integrated Studies bachelor degree.

CAREER OPPORTUNITIES

Courses in these areas of study lead to possible careers in mental health, counseling, family services, education, law enforcement, research, marketing, human resources, management, rehabilitation, anthropology, psychology, sociology, social work, and other human services.

PROGRAMS

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.

AA/AS PRE MAJOR IN BEHAVIORAL SCIENCE — 61 CREDITS

General Education Requirements: 35 Credits
- Complete General Education requirements as detailed in the General Education section of this catalog, with **ENGL 2020** recommended for the English requirement, **MATH 1040** recommended for the MATH requirement, and **PSY 1010** used to fulfill the Social/Behavioral Science Distribution requirement.

Discipline Core Requirements: 14 Credits

Complete the following:
- ANTH 1010 Social/Cultural Anthropology 3
- SOC 1010 Introduction to Sociology 3
- Complete 3 courses of approved Behavioral Science electives. Please see Behavioral Science advisor for a list of approved electives. 8

Elective Requirements: 12 Credits
- For AS degree: Any course numbered 1000 or higher 12

or For AA degree: Same Foreign Language 10
and Any course numbered 1000 or higher 2

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 UVSC.
4. Completion of GE and specified departmental requirements. All major course work taken to meet Behavioral Science requirements must be completed with a grade of C- or better
5. For the AA degree, completion of 10 credit hours of course work from one language.

BA/BS IN BEHAVIORAL SCIENCE — 123 CREDITS

Matriculation Requirements:
1. Must have a minimum overall GPA of 2.0 (at the time a student applies to the program)
2. Must complete 28 credits* of matriculation requirements with a minimum GPA of 3.0 in the 16 credits* of Behavioral Science courses. If a student has completed an associate degree through another institution, the required general education matriculation courses may be waived.

General Education Requirements: 35 Credits
- *ENGL 1010 Introduction to Writing 3
- ENGL 2010 Intermediate Writing—Humanities/Social Science 3

or *ENGL 2020 Intermediate Writing—Science and Technology **(recommended)**

Complete one of the following: 3
- MATH 1030 Quantitative Reasoning
- *MATH 1040 Introduction to Statistics (**recommended**)
- MATH 1050 College Algebra

Complete one of the following: 3
- HIST 1700 American Civilization
- HIST 2700 US History to 1877

and HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- *PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness

or PES 1097 Fitness for Life 2

Distribution Courses
- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution 3
- Fine Arts Distribution 3
- *PSY 1010 General Psychology (Social/Behavioral Science) 3

Discipline Core Requirements: 13 Credits

Matriculation requirement - (5 courses / 16 credits). These courses must have a cumulative GPA of 3.0 or better:
- *ANTH 1010 Social/Cultural Anthropology 3
- *PSY 1010 General Psychology (completed with GE requirements)
- *SOC 1010 Introduction to Sociology 3

BA/BS IN BEHAVIORAL SCIENCE (CON'T) — 123 CREDITS

- *PSY/SOC 3010 Statistics for the Behavioral Sciences 4
- Complete emphasis specific matriculation course for 3 credits (see Specialty Core Requirements); it must be completed before completing other Discipline Core requirements.

Diversity Requirement - Choose One Course (1 course / 3 credits) 3
- ANTH 3100 Anthropology of Gender and Sexuality

or ANTH 3300 Development and Rural Societies
or ANTH 360R People and Cultures of the World
or PSY 3100 Psychology of Gender
or SOC 3200 Race and Minority Relations

Specialty Requirements: 51 Credits

Complete one of the following Emphases (see detail below):
- Emphasis in Anthropology 51
- Emphasis in Psychology 51
- Emphasis in Social Work 51
- Emphasis in Sociology 51

General Elective Requirements: 24 Credits
- For BS degree: Any course numbered 1000 or higher 24

or For BA degree: Language requirement (18 credits in the same foreign language, includes ASL) 18
and Any course numbered 1000 or higher 6

Graduation Requirements:
1. Completion of a minimum of 123 credits, 40 of which must be 3000 level or higher.
2. Minimum UVSC GPA of 2.0 upon graduation.
3. Residency hours—minimum of 30 credit hours through course attendance at UVSC, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements, all major course work taken to meet Behavioral Science requirements must be completed with a grade of C- or better.
5. For the BA degree, completion of 18 credit hours of course work from one language to include the 1010, 1020, 2010, and 2020 levels or transferred equivalents.

Note:
*Course must be completed before a student can matriculate.
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.

Emphasis in Anthropology

Specialty Core Requirements: 42 Credits

Matriculation Requirement - (1 course/3 credits) Must complete all matriculation requirements (see Discipline Core) before taking any upper-division required courses.
- *ANTH 1500 Physical Anthropology 3

Lower Division Anthropology Requirement - (1 course/3 credits)

Complete one of the following:
- ANTH 1070 Multicultural Societies

or ANTH 1800 Introduction to American Indian Studies
or ANTH 275R Survey of Current Topics 3

Anthropology Core Requirements (4 courses/12 credits)
- ANTH 4150 Contemporary Theory and Debates 3
- ANTH 4160 History of Anthropological Thought 3

Complete two 360R courses, must be two different cultures:
- ANTH 360R People and Cultures of the World: 6

Upper Division Anthropology Requirement - (4 courses/12 credits)
- Choose four upper division (3000 or higher), 3 credit ANTH courses. 12

Allied Credit Requirement - (2 courses/6 credits)
- Choose courses totaling 6 credits. All must be 3000 level or above. They must be in Behavioral Science, Psychology, Sociology, and/or Social Work (BESC/PSY/SOC/SOWK). Only 3 credits may be used from PSY/SOC/SOWK 490R: Independent Studies 6

Research Requirement - (1 course/3 credits)
- ANTH 4010 Qualitative Research Design 3

Senior Capstone Requirement - (1 course/3 credits)
- ANTH 4850 Ethnographic Projects 3

Specialty Elective Requirements: 9 Credits

Behavioral Science Electives (3 courses/9 credits)
- In addition to the requirements listed above, students must complete 9 credits of approved Behavioral Science electives. Please see the Behavioral Science advisor for a list of approved courses. 9

BA/BS IN BEHAVIORAL SCIENCE (CON'T) 123 CREDITS

Emphasis in Psychology

Specialty Core Requirements: 36 Credits:

Matriculation Requirement - (1 course/3 credits) Must complete all matriculation requirements (see Discipline Core) before taking any upper-division required courses. 3

Complete *one of the following:
- PSY 3400 Abnormal Psychology
- or PSY 3460 Personality Theory
- or PSY 3500 Social Psychology

Lower Division Psychology Requirement - (2 courses/6 credits) 6

Complete one of the following:
- PSY 1100 Human Development: Life Span
- or PSY 2800 Human Sexuality
- or PSY 275R Survey of Current Topics

Complete one of the following:
- PSY 2250 Psychology of Interpersonal Relationships
- or PSY 2400 Psychology of Personal Effectiveness

Upper Division Psychology Requirement - (5 courses/15 credits)

Content Area (1 course/3 credits) Complete one of the following: 3
- PSY 3420 Learning, Memory, and Cognition
- or PSY 3450 Physiological Psychology
- or PSY 4150 Tests and Measurements
- or PSY 4500 History and Systems of Psychology

Development / Counseling Area (1 course/3 credits) 3

Complete one of the following:
- PSY 3200 Infancy and Child Development
- or PSY 3210 Adolescent Development
- or PSY 3220 Adult Development
- or PSY 4300 Introduction to Counseling and Psychotherapy
- or PSY 4400 Introduction to Group Psychotherapy

Choose three upper division (3000 or higher), 3 credit Psychology courses. 9

Allied Credit Requirement - (2 courses/6 credits). Choose courses totaling 6 credits. All must be 3000 level or above. They must be in Anthropology, Behavioral Science, Social Work, and/or Sociology (ANTH/BESC/SOWK/SOC). Only 3 credits may be used from ANTH/SOWK/SOC 490R: Independent Studies. SOWK 4800 not allowed. 6

Research Requirement - (2 courses/6 credits)
- PSY 3020 Research Methods for the Behavioral Sciences 3

Complete one of the following (1 course/3 credits) 3
- PSY 4010 Experimental Psychology
- PSY 4020 Survey Research Design
- PSY 4030 Introduction to Program Evaluation and Grant Writing

Specialty Elective Requirements: 15 Credits

Behavioral Science Electives (5 courses/15 credits). In addition to the requirements listed above, students must complete 15 credits of approved Behavioral Science electives, 3 hours must be upper-division. Please see the Behavioral Science advisor for a list of approved courses. 15

Emphasis in Social Work

Specialty Core Requirements: 39 Credits

Matriculation Requirement - (1 course/3 credits) Must complete all matriculation requirements (see Discipline Core) before taking any upper-division required courses.
- *SOWK 3600 Introduction to Social Work 3

Social Work Core Requirements (6 courses/18 credits)
- PSY 2250 Psychology of Interpersonal Relationships 3
- PSY 3400 Abnormal Psychology 3
- SOWK 3800 Clinical Interviewing Skills 3
- SOWK 4500 Social Welfare Policies and Services 3
- SOWK 4600 The DSM of Mental Disorders 3
- SOWK 4700 Case Management in Social Work Practice 3

Complete one of the following:
- SOWK 4300 Introduction to Counseling and Psychotherapy
- or SOWK 4400 Introduction to Group Psychotherapy 3

Allied Credit Requirement - (2 courses/6 credits)
- Choose courses totaling 6 credits. All must be 3000 level or above. They must be in Anthropology, Behavioral Science, Psychology, and/or Sociology (ANTH/BESC/PSY/SOC). Only 3 credits may be used from a ANTH/PSY/SOC 490R: Independent Studies. 6

Research Requirement - (2 courses/6 credits)

BA/BS IN BEHAVIORAL SCIENCE (CON'T) 123 CREDITS

- PSY 3020 Research Methods for the Behavioral Sciences 3

Complete one of the following (1 course/3 credits)
- PSY 4010 Experimental Psychology
- or PSY/SOC 4020 Survey Research Design
- or PSY/SOC 4030 Introduction to Program Evaluation and Grant Writing 3

Senior Capstone Requirement - (1 course/3 credits)
- SOWK 4800 Practicum 3

Specialty Elective Requirements: 12 Credits

Behavioral Science Electives (6 courses/12 credits)
- In addition to the requirements listed above, students must complete 12 credits of approved Behavioral Science electives. Please see the Behavioral Science advisor for a list of approved courses. 12

Emphasis in Sociology

Specialty Core Requirements: 33 Credits

Matriculation Requirement - (1 course/3 credits) Must complete all matriculation requirements (see Discipline Core) before taking any upper-division required courses.
- *SOC 3000 Contemporary Social Theory 3

Lower Division Sociology Requirement - (2 courses/6 credits)

Complete two of the following: 6
- SOC 1020 Modern Social Problems
- SOC 1200 Sociology of the Family
- SOC 2370 Gender Roles
- SOC 275R Survey of Current Topics

Upper Division Sociology Requirement - (4 courses/12 credits)
- Choose four upper division (3000 or higher), 3 credit SOC courses. 12

Allied Credit Requirement - (2 courses/6 credits)
- Choose courses totaling 6 credits. All must be 3000 level or above. They must be in Anthropology, Behavioral Science, Psychology, and/or Social Work (ANTH/BESC/PSY/SOWK). Only 3 credits may be used from ANTH/PSY/SOWK 490R: Independent Studies. 6

Research Requirement - (2 courses/6 credits)
- SOC 3020 Research Methods for the Behavioral Sciences 3

Complete one of the following (1 course/3 credits)
- SOC 4010 Qualitative Research Design
- or SOC 4020 Survey Research Design
- or SOC 4030 Introduction to Program Evaluation and Grant Writing 3

Specialty Elective Requirements: 18 Credits

Behavioral Science Electives (6 courses/18 credits)
- In addition to the requirements listed above, students must complete 18 credits of approved Behavioral Science electives, 6 hours must be upper-division. Please see the Behavioral Science advisor for a list of approved courses. 18

BA/BS IN INTEGRATED STUDIES 123 CREDITS

The following Integrated Studies emphases are available (see the Integrated Studies section of this catalog for complete degree requirement listings):
- Behavioral Science
- Psychology
- Sociology

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

ANTHROPOLOGY

ANTH 1010 SS
Social/Cultural Anthropology
3:3:0 Su, F, Sp
- Prerequisite: ENGL 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.

ANTH 1070 SS
Multicultural Societies
3:3:0 F

For students who desire to broaden their cultural awareness. 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.

ANTH 1500 (Cross-listed as BIOL 1500) SS
Physical Anthropology
3:3:0 F
- Prerequisite: ENGL 1010 and (ANTH 1010 or BIOL 1010)

For students with special interests in Anthropology or the Life Sciences. Studies fossils and living primate, primate biology and behavior. Surveys hominid 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 1800 (Cross-listed as HIST 1800) SS
Introduction to American Indian Studies
3:3:0 F

Provides 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 275R
Survey of Current Topics
3:3:0 On Sufficient Demand
- Prerequisite: (ANTH 1010 or PSY 1010 or SOC 1010) and ENGL 1010

Presents selected topics in Anthropology 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 a maximum of nine credits with different topics.

ANTH 3000 (Cross-listed as LANG 3000)
Language and Culture
3:3:0 Sp
• Prerequisite: ENGL 1010 and (ANTH 1010 or any foreign language 2010 course). Sophomore status required.
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.

ANTH 3100
Anthropology of Gender and Sexuality
3:3:0 Sp
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020)
Explores critical issues of gender and sexuality to better understand how these concepts appear within a variety of societies and contexts. Studies feminist anthropology and other anthropological writings challenging gender as an essential construct. Examines social movements that have developed around gender and sexuality.

ANTH 3130
Gender and Biomedicine
3:3:0 Sp
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020); ANTH 3150 is suggested
Studies anthropological concepts of culture and gender to understand the science, technology and politics of reproductive health. Explores ethnographic case studies and the symbolism of the body. Examines the contested meanings of gender, personhood and society within diverse cultural and political settings.

ANTH 3150 (Cross-listed as HLTH 3150) SS
Culture Ecology and Health
3:3:0 Sp
• Prerequisite: ENGL 1010 and (ANTH 1010 or PSY 1010 or SOC 1010)
Examines reciprocal roles of culture, environment, and disease in human health. Covers nutrition, stress, and traditional non-Western treatments. Explores cultures' use of their own global medicine to sustain health and welfare.

ANTH 3200
Anthropology of Food
3:3:0 Sp
• Prerequisite: (ANTH 1010 or SOC 1010) and (ENGL 2010 or ENGL 2020)
Explores the complex relationships between food and human action. Examines the biological and ecological underpinnings of human nutrition and the evolution of world cuisine, as well as the consequences of modernization for diet, nutrition, and health. Studies the selected social, cultural, medical, political, ideological, and symbolic uses of food in both Western and non-Western societies.

ANTH 3300
Development and Rural Societies
3:3:0 F
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020)
Examines the importance of agriculture and village life in an increasingly globalized world. Explores peasant studies and the many concerns of rural development. Also discusses poverty and how it relates to economic, social, and political development. Studies ways to ameliorate poverty and the role of governmental and non-governmental organizations in the process.

ANTH 3400
Myth Magic and Religion
3:3:0 F, Sp
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020)
Explores the many aspects of religion, including its history, diversity, and how it relates to social science studies. Also examines terms such as myth, magic, religion, ritual and shamanism, among others, and how these items are used to discuss religious and spiritual practices around the world.

ANTH 3450
Shamanism and Indigenous Religion
3:3:0 On Sufficient Demand
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020)
Studies 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. Looks at the current marketing of shamanism in New Age contexts.

ANTH 3460
Anthropology of Mormonism
3:3:0 Sp
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020); ANTH 3400 recommended
Examines the anthropological and sociological work on Mormonism, both the Church and Mormon society and culture. Studies Mormonism in a comparative framework, and will explore the question of the adequacy of the conceptual apparatus of a social science of religion for comprehending Mormonism.

ANTH 3500
Discourse Semiotics and Representation
3:3:0 On Sufficient Demand
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020)
Develops classical theoretical positions on representation, meaning, discourse, poetics, and performance of culture and their implications for scientific epistemology and methodology. Also surveys recent work by anthropologists in a range of settings responding to questions raised by these concerns.

ANTH 3550
Memory and History
3:3:0 On Sufficient Demand
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020)
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 360R
People and Cultures of the World
3:3:0 Su, F, Sp
• Prerequisite: ENGL 1010 and (ANTH 1010 or SOC 1010)
Surveys selected cultures and peoples in ethnographically different areas of the world. Includes cultures such as: Africa, Far and Middle East, North and South America, Europe and the Pacific. Repeatable up to nine credits with different topics.

ANTH 3650
The Aging of America—Social and Health Policy Issues in the 21st Century
3:3:0 On Sufficient Demand
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020)
Analyzes the aging process and the major social and health policy issues confronting older Americans. Examines the special needs of Americans as they age, including the impact of culture and ethnicity, political and financial factors, and legislative measures as they affect health care programs and services for the elderly. Places older Americans in a broader social context, compared to other societies.

ANTH 3700 (Cross-listed as PSY 3700)
Psychological Anthropology
3:3:0 F
• Prerequisite: PSY 1010 and ANTH 1010 and (ENGL 2010 or ENGL 2020); PSY 3400 strongly recommended
Explores interrelationships of individual personality to elements of Western and non-Western sociocultural systems. Relations of sociocultural contexts to self, motives, values, personal adjustment, stress and pathology are examined using case histories and ethnography. Studies the idea of self and personality, normality and deviance, and mental health and mental illness across social and cultural boundaries.

ANTH 3720
Applied Anthropology
3:3:0 On Sufficient Demand
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020)
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 mar-

keting, etc. Also explores the political, social, and theoretical implications of applied work.

ANTH 4010 (Cross-listed as SOC 4010)
Qualitative Research Design
3:3:0 F
• Prerequisite: (ENGL 2010 or ENGL 2020) and (ANTH 1010 or SOC 1010) and (PSY 3010 or SOC 3010) and (PSY 3020 or SOC 3020)
Examines qualitative research techniques. Includes observational techniques, field research, evaluative research, ethnography, focus groups and case studies. Students construct, carry out, and professionally present an original research project.

ANTH 4150
Contemporary Theory and Debates
3:3:0 On Sufficient Demand
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020)
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. Prepares the student to knowingly engage contemporary anthropological literatures.

ANTH 4160
History of Anthropological Thought
3:3:0 F
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020)
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 4180
Power Economy and People
3:3:0 Sp
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020)
Builds from a foundation in classic social anthropology and political economy to comprehend groups and identities both in the past and present as we look at nations, ethnicities, churches, civil society, tribes, and social movements.

ANTH 475R
Current Topics in Anthropology
3:3:0 On Sufficient Demand
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020)
Presents selected topic in Anthropology and will vary each semester. Requires a project demonstrating competency in the specific topic. May be repeated three times with different topics.

ANTH 4850
Ethnographic Project
3:3:0 On Sufficient Demand
• Prerequisite: ANTH 1010 and (ENGL 2010 or ENGL 2020) and (PSY 3010 or SOC 3010)
Studies research design, development and practice of person-centered interviewing, analysis of past and present ethnographic literature, and the writing up and presentation of results. Develops skills in solving problems, thinking analytically, skillfully interacting with people different from oneself, reading critically and writing effectively.

ANTH 490R
Independent Studies
1-3:1-3:0 On Sufficient Demand
• Prerequisite: For Behavioral Science Bachelor Degree students only. Must have consent of the instructor
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 six credits.

BEHAVIORAL SCIENCE

BESC 1000
Behavioral Science Forum
2:2:0 F, Sp
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 3000
Behavioral Science Models
3:3:0 On Sufficient Demand
• Prerequisite: ANTH 1010 and PSY 1010 and SOC 1010 and (ENGL 2010 or ENGL 2020)
Required class for Behavioral Science Honors students and Integrated Studies students seeking an emphasis in Behavioral Science. Meets one of the Allied Credit Requirement for all other Behavioral Science Students. Integrates Anthropology, Psychology, and Sociology. Emphasizes theories and research methods. Examines professional and ethical issues in each of these disciplines.

BESC 4100
Professional Considerations and Preparations for Behavioral Science Majors
1:1:0 F, Sp
• Prerequisite: (PSY 1010 or SOC 1010 or ANTH 1010) and (ENGL 2010 or ENGL 2020) and Junior status
Emphasizes the development of skills necessary to successfully apply for employment and/or graduate school. Includes resume writing, cover letters and basic interview skills. Also includes the preparation of acceptable application packages, and learning how to network with school and community resources to find employment and/or graduate school opportunities.

PSYCHOLOGY

PSY 1010** SS
General Psychology†
3:3:0 Su, F, Sp
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.

PSY 1100 (Cross-listed as ECFS 1500) SS
Human Development Life Span
3:3:0 Su, F, Sp
An integrated approach to human development from conception and birth to old age and death. Causes students to examine their own growth and developmental patterns and learn to understand the characteristics of various developmental stages. Studies the major physical, cognitive and psychosocial themes and issues of human development. Includes genetics, prenatal development, birth, early/middle/late childhood, adolescence, early/middle/late adulthood, and death.

PSY 2250
Psychology of Interpersonal Relationships
3:3:0 Su, F, Sp
• Prerequisite: ENGL 1010 and PSY 1010
For Behavioral Science majors only. 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 2400
Psychology of Personal Effectiveness
3:3:0 F, Sp
• Prerequisite: PSY 1010 and ENGL 1010
Assists students in exploring psychological theories as they apply to individual growth and adjustment.

PSY 275R
Survey of Current Topics
3:3:0 On Sufficient Demand
• Prerequisite: (ANTH 1010 or PSY 1010 or SOC 1010) and ENGL 1010
Presents selected topic in Psychology and will vary each semester. Approaches subjects from cross-disciplinary perspective. Requires a project demonstrating competency in the specific topic. May be repeated for nine credits toward graduation.

PSY 2800 (Cross-listed as HLTH 2800) SS
Human Sexuality
3:3:0 Su, F, Sp
• Prerequisite: ENGL 1010
• Corequisite: ENGL 1010
Interdisciplinary course in human sexuality, exploring topics in biology, health, psychology, and sociology. Introduces basic concepts of human sexuality including anatomy, reproduc-

tion, 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. An elective psychology course for students pursuing a degree in Behavioral Science. Note: Due to Utah State Laws regarding sexuality education, students registering for PSY 2800 must be 18 years of age or a high school graduate.

PSY 3010 (Cross-listed as SOC 3010)
Statistics for the Behavioral Sciences
4:4:0 Su, F, Sp
• Prerequisite: MAT 1000 or MAT 1010 or HIGHER and (PSY 1010 or SOC 1010).
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 3020 (Cross-listed as SOC 3020)
Research Methods for the Behavioral Sciences
3:3:0 Su, F, Sp
• Prerequisite: (ENGL 2010 or ENGL 2020) and (PSY 1010 or SOC 1010) and (PSY 3010 or SOC 3010)
Introduces research methods commonly used in behavioral science research. Includes data, subjects, populations, and various experimental designs including non-experimental and Quasi-experimental methods, and experimental designs, including within and between subject designs. Presents basic reasoning behind inferential statistics, without the detail. Requires a student designed research project and write-up of the results in APA Style.

PSY 3100
Psychology of Gender
3:3:0 F, Sp
• Prerequisite: PSY 1010 and (ENGL 2010 or ENGL 2020)
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 3150 (Cross-listed as LEGL 3150)
Survey of Dispute Resolution
3:3:0 F
• Prerequisite: LEGL 1000 or (PSY 1010 or SOC 1010)
Offers an introduction to the most commonly practiced dispute resolution processes, including negotiation, mediation, arbitration, and litigation. Studies conflict resolution theory and explores contemporary dispute resolution policy issues. Involves participation in simulations of various dispute resolution processes, including interviewing and counseling, negotiation, mediation and arbitration.

PSY 3200
Infancy and Childhood Development
3:3:0 F, Sp
• Prerequisite: PSY 1010 and (ENGL 2010 or ENGL 2020)
Teaches major theories of infant and child development. Identifies the sequence of development including physical, mental, and emotional conditions. Studies special needs and exceptional children. Examines parenting styles. Emphasizes development of the 'whole child'.

PSY 3210
Adolescent Development
3:3:0 F, Sp
• Prerequisite: PSY 1010 and (ENGL 2010 or ENGL 2020)
Focuses on physical, social, mental and emotional development of adolescents. Examines current research regarding optimal conditions for healthy maturation and separation/individuation from parents. Addresses adjustment problems, prevention, and remedies.

PSY 3220
Adult Development
3:3:0 Sp
• Prerequisite: PSY 1010 and (ENGL 2010 or ENGL 2020)
Studies adult developmental stages (end of adolescence through old age). Examines stable patterns and predictable changes in physiological and psychological and cognitive processes, emphasizing current research in optimal adult functioning.

PSY 3250 (Cross-listed as SOC 3250)
Applied Parenting
3:3:0 F
• Prerequisite: (PSY 1010 or SOC 1010) and (ENGL 2010 or ENGL 2020)
Exposes students to classical and contemporary parenting theory, research, and practice. Application to the guidance of children is the core focus. Course material includes the study of parenting: concepts, challenges, risks, and alternatives while considering the social, physical, emotional, intellectual, and spiritual environments of the child.

PSY 3400
Abnormal Psychology
3:3:0 Su, F, Sp
• Prerequisite: PSY 1010 and (ENGL 2010 or ENGL 2020)
Foundation course for psychology majors. Examines the psychology of abnormal behavior, 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 (DSM IV-R).

PSY 3410 (Cross-listed as COMM 3410, LEGL 3410)
Fundamentals of Mediation and Negotiation
3:3:0 F
• Prerequisite: LEGL 1000 or (PSY 1010 or SOC 1010) or COMM 1050
Prepares students to understand and participate knowledgeably on a basic level in the processes of mediation and negotiation. Improves 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.

PSY 3420
Learning Memory and Cognition
3:3:0 Su, Sp
• Prerequisite: PSY 1010 and (ENGL 2010 or ENGL 2020)
Introduces students to the core concepts of learning, memory, and cognition. Includes classical and operant conditioning, modal model of memory, and higher cognitive processes. Explores animal as well as human research.

PSY 3450
Physiological Psychology
3:3:0 F
• Prerequisite: PSY 1010 and (ENGL 2010 or ENGL 2020). Recommended ZOOL 1090 or higher.
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.

PSY 3460
Personality Theory
3:3:0 Su, F, Sp
• Prerequisite: PSY 1010 and (ENGL 2010 or 2020)
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.

PSY 3500 (Cross-listed as SOC 3500)
Social Psychology
3:3:0 Su, F, Sp
• Prerequisite: (PSY 1010 or SOC 1010) and (ENGL 2010 or 2020)
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.

PSY 3700 (Cross-listed as ANTH 3700)
Psychological Anthropology
3:3:0 F
- Prerequisite: PSY 1010 and ANTH 1010 and (ENGL 2010 or ENGL 2020); PSY 3400 Strongly recommended

Explores interrelationships of individual personality to elements of Western and non-Western sociocultural systems. Relations of sociocultural contexts to self, motives, values, personal adjustment, stress and pathology are examined using case histories and ethnography. Studies the idea of self and personality, normality and deviance, and mental health and mental illness across social and cultural boundaries.

PSY 3750 (Cross-listed as SOWK 3750)
Child Abuse/Neglect and Domestic Violence
3:3:0 F, Sp
- Prerequisite: (PSY 1100 or ECFS 1500) and (SOWK 3600 or PSY 3400)

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.

PSY 3800 (Cross-listed as SOWK 3800)
Clinical Interviewing Skills
3:3:0 On Sufficient Demand
- Prerequisite: PSY 2200 and (SOWK 3600 or PSY 3400)

Develops knowledge of and skill in clinical interviewing. 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.

PSY 4010
Experimental Psychology
3:3:0 F, Sp
- Prerequisite: (ENGL 2010 or ENGL 2020) and (ANTH 1010 or PSY 1010 or SOC 1010) and (PSY 3010 or SOC 3010) and (PSY 3020 or SOC 3020)

Explores various experimental research designs (true experimental and quasi-experimental), emphasizing application and evaluation. Students will be required to conduct an original psychological experimental research project.

PSY 4020 (Cross-listed as SOC 4020)
Survey Research Design
3:3:0 Sp
- Prerequisite: (ENGL 2010 or ENGL 2020) and (ANTH 1010 or PSY 1010 or SOC 1010) and (PSY 3010 or SOC 3010) and (PSY 3020 or SOC 3020)

Teaches methods of conducting survey research. Includes how to construct, validate, and administer surveys; how to conduct interviews; how to report data, and how to interpret findings.

PSY 4030 (Cross-listed as SOC 4030)
Introduction to Program Evaluation and Grant Writing
3:3:0 F
- Prerequisite: (ENGL 2010 or ENGL 2020) and (ANTH 1010 or PSY 1010 or SOC 1010) and (PSY 3010 or SOC 3010) and (PSY 3020 or SOC 3020)

Introductory course providing practical guidance for conducting of 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.

PSY 4100 (Cross-listed as COMM 4100, LEGL 4100)
Advanced Mediation and Negotiation
3:3:0 Sp
- Prerequisite: PSY 3410 or COMM 3410 or LEGL 3410

Prepares students to perform at an advanced level in the processes of mediation and negotiation. Builds on the fundamentals learned in the basic course, improves knowledge of both processes, and sharpens practical skills and effectiveness as a mediator or negotiator. Uses an interactive-workshop format that blends theory with simulated class role-play.

PSY 4150
Tests and Measurements
3:3:0 On Sufficient Demand
- Prerequisite: (ENGL 2010 or ENGL 2020) and (ANTH 1010 or PSY 1010 or SOC 1010) and (PSY 3010 or SOC 3010)

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 4200 (Cross-listed as LEGL 4200)
Domestic Mediation
3:3:0 On Sufficient Demand
- Prerequisite: LEGL 3410 or PSY 3410 or instructor approval

Prepares students to understand and participate knowledgeably and effectively in the process of domestic mediation. Improves conceptual knowledge about and understanding of the domestic mediation process as well as improving practical negotiation and mediation skills. Utilizes a highly interactive workshop format that blends theory with practice in simulated class role plays.

PSY 4250 (Cross-listed as SOC 4250)
Human Behavior in Organizations and Work
3:3:0 On Sufficient Demand
- Prerequisite: (ENGL 2010 or ENGL 2020) and (PSY 1010 or SOC 1010)

For Behavioral Science majors and other students with an interest in social organizations. Studies anthropological, sociological, and psychological approaches to work and organization. Examines contemporary use of each field by organizations. Teaches how each approach can be applied by organizations to achieve greater success.

PSY 4300 (Cross-listed as SOWK 4300)
Introduction to Counseling and Psychotherapy
3:3:0 Su, F, Sp
- Prerequisite: PSY 1010 and PSY 2250 and PSY 3400 and (ENGL 2010 or ENGL 2020)

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 (Cross-listed as SOWK 4400)
Introduction to Group Psychotherapy
3:3:0 Su, F, Sp
- Prerequisite: PSY 1010 and PSY 2250 and PSY 3400 and (ENGL 2010 or ENGL 2020)

Discusses group therapy theory, research applied to client assessment and outcomes, legal and ethical issues. Includes screening, assessment, treatment, evaluation, and termination of group members.

PSY 4500
History and Systems of Psychology
3:3:0 Sp
- Prerequisite: PSY 1010 and (ENGL 2010 or 2020)

Identifies key contributors, historical systems and theories within the field of psychology. Includes contributions to present knowledge of affect, behavior, and cognition. Stresses similarities and differences between theories. Especially for students planning to take the Advanced Psychology Subject Test portion of the GRE.

PSY 4600 (Cross-listed as SOWK 4600)
The DSM of Mental Disorders
3:3:0 On Sufficient Demand
- Prerequisite: PSY 3400

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.

PSY 475R
Current Topics in Psychology
3:3:0 On Sufficient Demand
- Prerequisite: PSY 1010 and (ENGL 2010 or ENGL 2020)

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 nine credits toward graduation.

PSY 4800 (Cross-listed as SOWK 4800)
Practicum
3:3:0 F, Sp
• Prerequisite: Senior standing in the Behavioral Science Department and (PSY 3020 or SOC 3020) and PSY 2250 and PSY 3400 and (ENGL 2010 or ENGL 2020) and (PSY 4300 or PSY 4400)
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. Requires minimum six hours work per week in an approved setting, and in-class study three hours per week.

PSY 4890
Senior Internship
3:1:6 F, Sp
• Prerequisite: Senior standing in the Behavioral Science Department, (PSY 3020 or SOC 3020) and (ENGL 2010 or ENGL 2020)
Allows Behavioral Science students with non-clinical orientation to receive psychology credits for interning 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. Internships approved by faculty and written contracts must be signed.

PSY 490R
Independent Studies
1-3:1-3:0 On Sufficient Demand
• Prerequisite: For Behavioral Science Bachelor Degree students only. Must have the approval of the instructor and the department chair.
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 six credits.

PSY 4950 (Cross-listed as SOC 4950)
Senior Seminar
3:3:0 On Sufficient Demand
• Prerequisite: Senior standing in the Behavioral Science Department and (PSY 3020 or SOC 3020) and (ENGL 2010 or ENGL 2020)
Considers contemporary issues in Behavioral Sciences from an ethical and professional perspective. Focuses on synthesis and integration of course work and other learning experiences. Requires a senior project.

SOCIOLOGY

SOC 1010** SS
Introduction to Sociology
3:3:0 Su, F, Sp
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 SS
Modern Social Problems
3:3:0 Su, F, Sp
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 1200 SS
Sociology of the Family
3:3:0 Su, F, Sp
Studies the family from a sociological perspective. Covers historical and developmental patterns of courtship and marriage, dual careers, sexual adjustment, parenting, divorce, step families, and bereavement. Stresses personal values and the application of theories to individual situations.

SOC 2370
Gender Roles
3:3:0 On Sufficient Demand
• Prerequisite: ENGL 1010
Examines sociological perspectives of gender roles worldwide. Explores biological, cultural, social, and environmental expressions of maleness and femaleness. Addresses the effect of these areas on the 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 U. S.

SOC 275R
Survey of Current Topics
3:3:0 On Sufficient Demand
• Prerequisite: (ANTH 1010 or PSY 1010 or SOC 1010) and ENGL 1010
Presents selected topic in Sociology 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.

SOC 3000
Contemporary Social Theory
3:3:0 F, Sp
• Prerequisite: SOC 1010 and (ENGL 2010 or ENGL 2020)
Surveys major sociological theories, which provide the basis for sociological research and the interpretation of social processes.

SOC 3010 (Cross-listed as PSY 3010)
Statistics for the Behavioral Sciences
4:4:0 Su, F, Sp
• Prerequisite: MAT 1000 or MAT 1010 or HIGHER and (PSY 1010 or SOC 1010)
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.

SOC 3020 (Cross-listed as PSY 3020)
Research Methods for the Behavioral Sciences
3:3:0 Su, F, Sp
• Prerequisite: (ENGL 2010 or ENGL 2020) and (PSY 1010 or SOC 1010) and (PSY 3010 or SOC 3010)
Introduces research methods commonly used in behavioral science research. Includes data, subjects, populations, and various experimental designs including non-experimental and Quasi-experimental methods, and experimental designs, including within and between subject designs. Presents basic reasoning behind inferential statistics, without the detail. Requires a student designed research project and write-up of the results in APA Style.

SOC 3100
Population Society and Demography
3:3:0 On Sufficient Demand
• Prerequisite: SOC 1010 and (ENGL 2010 or ENGL 2020)
Introduces basic concepts of population studies. Explores population growth and change from a world perspective. Utilizes computer software and other data sources to study census data to track population change, examine possible causes, and projected consequences for the future.

SOC 3200
Race and Minority Relations
3:3:0 Su, F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
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 3250 (Cross-listed as PSY 3250)
Applied Parenting
3:3:0 F
• Prerequisite: (PSY 1010 or SOC 1010) and (ENGL 2010 or ENGL 2020)
Exposes students to classical and contemporary parenting theory, research, and practice. Application to the guidance of children is the core focus. Course material includes the study of parenting: concepts, challenges, risks, and alternatives while considering the social, physical, emotional, intellectual, and spiritual environments of the child.

SOC 3430
Sociology of Education
3:3:0 F
• Prerequisite: SOC 1010 and (ENGL 2010 or ENGL 2020)
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 3450
Environmental Sociology
3:3:0 Sp
• Prerequisite: SOC 1010 and (ENGL 2010 or ENGL 2020)
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 cultural values and how these institutions' values can create and perpetuate unsustainable practices.

SOC 3460
Political Sociology
3:3:0 F
• Prerequisite: SOC 1010 and (ENGL 2010 or ENGL 2020)
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 3500 (Cross-listed as PSY 3500)
Social Psychology
3:3:0 Su, F, Sp
• Prerequisite: (PSY 1010 or SOC 1010) and (ENGL 2010 or 2020)
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.

SOC 3560
Sociology of Deviance
3:3:0 F
• Prerequisite: SOC 1010 and (ENGL 2010 or ENGL 2020)
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 3650
Sociology of Aging
3:3:0 On Sufficient Demand
• Prerequisite: ENGL 2010 or 2020
For behavioral science students and those interested in health or medical professions. Studies aging societies with emphasis in: biological/health, psychology/personality, social/family, occupational/leisure, and cross cultural issues. Presents current issues of aging in both the United States and other countries. Explores cultural and individual issues and remedies for ageism.

SOC 3700
Social Inequality
3:3:0 Su, Sp
• Prerequisite: SOC 1010 and (ENGL 2010 or ENGL 2020)
Studies social structure, culture, environment (urban/rural axis), inequality, and poverty in American Society. Examines Spanish Harlem, Detroit, Appalachia, and the Bitterroot Valley of Montana.

SOC 3720
Applied Sociology
3:3:0 F, Sp
• Prerequisite: SOC 1010 and (ENGL 2010 or ENGL 2020)
Uses sociological 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 sociological tools to identify, investigate, and actively seek viable solutions to issues of structure, process, and social change.

SOC 4010 (Cross-listed as ANTH 4010)
Qualitative Research Design
3:3:0 F
• Prerequisite: (ENGL 2010 or ENGL 2020) and (ANTH 1010 or SOC 1010) and (PSY 3010 or SOC 3010) and (PSY 3020 or SOC 3020)
Examines qualitative research techniques. Includes observational techniques, field research, evaluative research, ethnography, focus groups, and case studies. Students construct, carry out and professionally present an original research project.

SOC 4020 (Cross-listed as PSY 4020)
Survey Research Design
3:3:0 Sp
• Prerequisite: (ENGL 2010 or ENGL 2020) and (ANTH 1010 or PSY 1010 or SOC 1010) and (PSY 3010 or SOC 3010) and (PSY 3020 or SOC 3020)
Teaches methods of conducting survey research. Includes how to construct, validate, and administer surveys; how to conduct interviews; how to report data, and how to interpret findings.

SOC 4030 (Cross-listed as PSY 4030)
Introduction to Program Evaluation and Grant Writing
3:3:0 F
• Prerequisite: (ENGL 2010 or ENGL 2020) and (ANTH 1010 or PSY 1010 or SOC 1010) and (PSY 3010 or SOC 3010) and (PSY 3020 or SOC 3020)
Introductory course providing 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.

SOC 4250 (Cross-listed as PSY 4250)
Human Behavior in Organizations and Work
3:3:0 On Sufficient Demand
• Prerequisite: (ENGL 2010 or ENGL 2020) and (PSY 1010 or SOC 1010)
For Behavioral Science majors and other students with an interest in social organizations. Studies anthropological, sociological and psychological approaches to work and organization. Examines contemporary use of each field by organizations. Teaches how each approach can be applied by organizations to achieve greater success.

SOC 4400
Social Change
3:3:0 Sp
• Prerequisite: SOC 1010 and (ENGL 2010 or ENGL 2020)
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
3:3:0 On Sufficient Demand
• Prerequisite: SOC 1010 and (ENGL 2010 or ENGL 2020)
Presents selected topic in Sociology and will vary each semester. Requires a project demonstration competency in the specific topic. May be repeated three times with different topics.

SOC 4890
Senior Internship
3:1:6 F, Sp
• Prerequisite: Senior standing in the Behavioral Science Department, (PSY 3020 or SOC 3020) and (ENGL 2010 or ENGL 2020)
Allows Behavioral Science students to receive sociology credits for interning in a governmental, corporate, or private agency apart from their regular employment. Provides students with practical and research experience over the course of the 15-week semester. Work must be supervised by agency representative. Internships, approved by faculty and written contracts, must be signed.

SOC 490R
Independent Studies
1-3:1-3:0 On Sufficient Demand
• Prerequisite: For Behavioral Science Bachelor Degree students only. Must have the approval of the instructor and the department chair.
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 six credits.

SOC 4950 (Cross-listed as PSY 4950)
Senior Seminar
3:3:0 On Sufficient Demand
- Prerequisite: Senior standing in the Behavioral Science Department and (PSY 3020 or SOC 3020) and (ENGL 2010 or ENGL 2020)

Considers contemporary issues in Behavioral Sciences from an ethical and professional perspective. Focuses on synthesis and integration of course work and other learning experiences. Requires a senior project.

SOCIAL WORK

SOWK 275R
Survey of Current Topics
3:3:0 On Sufficient Demand
- Prerequisite: (ANTH 1010 or PSY 1010 or SOC 1010) and ENGL 1010

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.

SOWK 3600
Introduction to Social Work
3:3:0 Su, F, Sp
- Prerequisite: (PSY 1010 or SOC 1010) and (ENGL 2010 or ENGL 2020)

Introduces social work 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. Explores current career opportunities in the field.

SOWK 3750 (Cross-listed as PSY 3750)
Child Abuse/Neglect and Domestic Violence
3:3:0 F, Sp
- Prerequisite: (PSY 1100 or ECFS 1500) and (SOWK 3600 or PSY 3400)

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.

SOWK 3800 (Cross-listed as PSY 3800)
Clinical Interviewing Skills
3:3:0 On Sufficient Demand
- Prerequisite: PSY 2200 and (SOWK 3600 or PSY 3400)

Develops knowledge of and skill in clinical interviewing. 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.

SOWK 4300 (Cross-listed as PSY 4300)
Introduction to Counseling and Psychotherapy
3:3:0 Su, F, Sp
- Prerequisite: PSY 1010 and PSY 2200 and PSY 3400 and (ENGL 2010 or ENGL 2020)

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.

SOWK 4400 (Cross-listed as PSY 4400)
Introduction to Group Psychotherapy
3:3:0 Su, F, Sp
- Prerequisite: PSY 1010 and PSY 2200 and PSY 3400 and (ENGL 2010 or ENGL 2020)

Discusses group therapy theory, research applied to client assessment and outcomes, legal and ethical issues. Includes screening, assessment, treatment, evaluation, and termination of group members.

SOWK 4500
Social Welfare Policies and Services
3:3:0 F, Sp
- Prerequisite: SOWK 3600 and (ENGL 2010 or ENGL 2020)

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.

SOWK 4600 (Cross-listed as PSY 4600)
The DSM of Mental Disorders
3:3:0 On Sufficient Demand
- Prerequisite: PSY 3400

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.

SOWK 4700
Case Management in Social Work Practice
3:3:0 On Sufficient Demand
- Prerequisite: SOWK 3600 and PSY 3400 and senior in Behavioral Science program

Provides the conceptual foundation for providing case management services and crisis intervention to individuals in various population groups.

SOWK 475R
Current Topics in Social Work
3:3:0 On Sufficient Demand
- Prerequisite: (PSY 1010 or SOC 1010) and (ENGL 2010 or ENGL 2020). Recommended: PSY 3400 and SOWK 3600

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 nine credits toward graduation.

SOWK 4800 (Cross-listed as PSY 4800)
Practicum
3:3:0 F, Sp
- Prerequisite: Senior standing in the Behavioral Science Department and (PSY 3020 or SOC 3020) and PSY 2200 and PSY 3400 and (ENGL 2010 or ENGL 2020) and (PSY 4300 or PSY 4400)

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. Requires minimum six hours work per week in an approved setting, and in-class study three hours per week.

SOWK 490R
Independent Studies
1-3:1-3:0 On Sufficient Demand
- Prerequisite: For Behavioral Science Bachelor Degree students only. Must have the approval of the instructor and the department chair.

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 six credits.

BIOLOGY

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The UVSC Biology program offers a variety of courses that investigate the living world, including courses in biology, botany, ecology, genetics, human anatomy, human physiology, conservation biology, microbiology, zoology and others. A course of study may be designed to provide breadth in the life sciences or to prepare students for a specific area of biology.

Many courses in these programs fill general education requirements in the biology distribution area (see Graduation Requirements section of the UVSC catalog).

CAREER OPPORTUNITIES

Majors in Biology prepare for a wide variety of occupations in education, government, medicine, and research. Students majoring in a UVSC Bachelor's program should meet with the Biology Department advisor early in their program.

JOB OUTLOOK

Graduates with degrees in Biology are especially in demand in the secondary education, health, natural resource management, and biotechnology areas.

PROGRAMS

Four options are available: Associate in Science Degree with a pre-major in Biology; Bachelor of Science Degree in Integrated Studies with a Biology emphasis, Bachelor of Science Degree in Biology, and Bachelor of Science in Biology Education.

All AS/AA and BS Biology majors must consult with the Biology Department advisor prior to their first semester of enrollment at UVSC to formulate a plan of study. BS in Biology Education majors consult with Biology Secondary Education Advisor.

Students interested in a career in biology or a related field are encouraged to earn at least a baccalaureate degree (BS). Many professions (e.g. pharmacy, medicine) require additional post-baccalaureate education. The UVSC AS/AA degree is intended for students who plan to use it as a first step toward a baccalaureate degree. The AS degree may be granted to those who do not continue in a bachelor's program and meet the minimum requirements. The Bachelor of Science in Biology Degree may be used for entry into a career or in preparation for post-baccalaureate (for masters and doctoral degrees) or professional (e.g. medical, dental) education. A Bachelor of Science Degree in Integrated Studies, Biology emphasis is available. Please see Biology advisor for more information.

AA/AS PRE MAJOR IN BIOLOGY — 60-62 CREDITS

General Education Requirements:				42 Credits
•	ENGL	1010	Introduction to Writing	3
•	ENGL	2010	Intermediate Writing—Humanities/Social Science	3
or	ENGL	2020	Intermediate Writing—Science/Technology	
•	MATH	1050	College Algebra	4
Complete one of the following:				3
•	HIST	2700	US History to 1877	
and	HIST	2710	US History since 1877	
•	HIST	1700	American Civilization	
•	ECON	1740	US Economic History	
•	POLS	1000	American Heritage	
•	POLS	1100	American National Government	
Complete the following:				
•	PHIL	2050	Ethics and Values	3
•	HLTH	1100	Personal Health and Wellness	
or	PES	1097	Fitness for Life	2
Distribution Courses				
•	BIOL	1610	College Biology I	4
and	BIOL	1615	College Biology I Laboratory	1
•	CHEM	1210	Principles of Chemistry I	4
and	CHEM	1215	Principles of Chemistry I Laboratory	1
•	CHEM	1220	Principles of Chemistry II	4
and	CHEM	1225	Principles of Chemistry II Laboratory	1
•	Humanities Distribution			3
•	Fine Arts Distribution			3
•	Social/Behavioral Science			3
Discipline Core Requirements:				10-12 Credits
•	BIOL	1620	College Biology II	3
and	BIOL	1625	College Biology II Laboratory	1
•	**For the AA degree:** Minimum of 2 additional biology courses (BIOL, BOT, MICR, or ZOOL prefixes). BIOL 1010 and BIOL 1050 can not be used to meet this requirement. See Biology Advisor.			6
or	**For the AS degree:** Minimum of 3 additional biology courses (BIOL, BOT, MICR, or ZOOL prefixes). BIOL 1010 and BIOL 1050 can not be used to meet this requirement. See Biology Advisor.			8
Elective Requirements:				6-10 Credits
•	**For the AA degree:** Same Foreign Language			10
or	**For the AS degree:** Complete any course 1000 or higher. See Biology Advisor.			6
Graduation Requirements:				
1	Completion of a minimum of 60-62 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 UVSC.			
4	Completion of GE and specified departmental requirements.			
5	For the AA degree, completion of 10 credit hours of course work from one language.			

BS IN BIOLOGY — 122 CREDITS

General Education Requirements:				39 Credits
•	ENGL	1010	Introduction to Writing	3
•	ENGL	2020	Intermediate Writing—Science/Technology	3
•	MATH	1050	College Algebra	4
Complete one of the following:				3
•	HIST	2700	US History to 1877	
and	HIST	2710	US History since 1877	
•	HIST	1700	American Civilization	
•	ECON	1740	US Economic History	
•	POLS	1000	American Heritage	
•	POLS	1100	American National Government	
Complete the following:				
•	PHIL	2050	Ethics and Values	3
•	HLTH	1100	Personal Health and Wellness	
or	PES	1097	Fitness for Life	2

BS IN BIOLOGY (CON'T) 122 CREDITS

Distribution Courses

- BIOL 1610 College Biology I 4
- CHEM 1210 Principles of Chemistry I 4
- CHEM 1220 Principles of Chemistry II 4
- Humanities Distribution 3
- Fine Arts Distribution 3
- Social/Behavioral Science 3

Discipline Core Requirements: 47 Credits

- 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
- BIOL 3500 Molecular Genetics 3
- BIOL 3600 Biological Chemistry 3
- BIOL 3700 General Ecology 3
- BIOL 4500 Principles of Evolution 3
- BIOL 494R Seminar 1
- MATH 2040 Principles of Statistics 4

or MATH 1060 Trigonometry
and MATH 1210 Calculus I

- PHYS 2010 College Physics I 4
- PHYS 2015 College Physics I Lab 1
- PHYS 2020 College Physics II 4
- PHYS 2025 College Physics II Lab 1
- 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

Elective Requirements: 36 Credits

- Choose 4 credits from any MICR Prefix 4
- Choose 3 credits from any BOT Prefix 3
- Choose 3 credits from any ZOOL Prefix (except ZOOL 1090) 3
- Additional electives to meet credit and upper-division requirements 26

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 UVSC 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), 20 of which must be upper-division. A minimum of nine Biology credits must be taken at UVSC.
6. Complete Biology core courses with a grade of "C-" or higher in each course.
7. Achieve a minimum overall GPA of 2.0 with a minimum GPA of 2.25 in biology courses.
8. Complete the appropriate application for graduation form.

BS IN BIOLOGY EDUCATION 123 CREDITS

Matriculation Requirements:

1. Admission to Professional Education status is a requirement for enrollment in professional studies level courses.

General Education Requirements: 39 Credits

- ENGL 1010 Introduction to Writing 3
- ENGL 2020 Intermediate Writing—Science and Technology 3
- MATH 1050 College Algebra 4

Complete one of the following: 3

- HIST 2700 US History to 1877

and HIST 2710 US History since 1877

- HIST 1700 American Civilization
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:

- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health and Wellness

or PES 1097 Fitness for Life 2

Distribution Courses

- BIOL 1610 College Biology I 4
- CHEM 1110 Elementary Chemistry for Health Sciences 4
- CHEM 1120 Elementary Bioorganic Chemistry 4
- Humanities Distribution 3
- Fine Arts Distribution 3
- HIST 4320 History of Scientific Thought (Social/Behavioral Science) 3

Discipline Core Requirements: 84 Credits

- BIOL 1615 College Biology I Laboratory 1

BS IN BIOLOGY EDUCATION (CON'T) 123 CREDITS

- BIOL 1620 College Biology II 3
- BIOL 1625 College Biology II Laboratory 1
- MICR 2060 Microbiology for Health Professions 4

or MICR 3450 General Microbiology

- BIOL 3500 Molecular Genetics 3
- BIOL 3700 General Ecology 3
- BIOL 4200 Teaching Methods in Science 3
- BIOL 4500 Principles of Evolution 3
- BIOL 494R Seminar 1
- BOT 2050 Field Botany 3

or BOT 2100 Flora of Utah
or BOT 4300 Wildland Shrubs

- BOT 3340 Plant Biology 4
- ZOOL 2320 Human Anatomy 4
- ZOOL 2420 Human Physiology 4
- ZOOL 3100 Vertebrate Zoology 4
- ZOOL 3200 Invertebrate Zoology 4
- CHEM 1115 Elementary Chemistry Laboratory 1
- CHEM 1125 Elementary Organic Bio-Chemistry Laboratory 1

Education Courses

- EDSC 2540 Development of the Adolescent Student 2
- EDSC 3000 Educational Psychology 3
- EDSC 3050 Foundations of American Education 2
- EDSC 3250 Instructional Media 2
- EDSC 4200 Classroom Management I 1
- EDSC 4250 Classroom Management II 1
- EDSC 4440 Content Area Reading and Writing 3
- EDSC 4450 Multicultural Instruction/ESL 2
- EDSC 4550 Secondary Curriculum, Instruction and Assessment 4
- EDSC 4850 Student Teaching, Secondary 8
- EDSP 3400 Exceptional Students 2
- GEO 1010 Introduction to Geology 3
- GEO 1015 Introduction to Geology Laboratory 1
- PHYS 1010 Elementary Physics 3

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 UVSC 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 UVSC and a minimum of 20 Biology credits must be upper-division.
6. Complete the appropriate application for graduation form.

BA/BS IN INTEGRATED STUDIES 124 CREDITS

The following Integrated Studies emphasis is available (see the Integrated Studies section of this catalog for complete degree requirement listings and consult with the Biology Department Advisor):

- Biology

MINOR IN BIOLOGY 21 CREDITS

Matriculation Requirements:

1. Admitted to a bachelor degree program at UVSC.

Discipline Core Requirements: 21 Credits

Complete the following with a grade of C- or better: 4

- BIOL 1610 College Biology I 1
- BIOL 1615 College Biology I Laboratory 3
- BIOL 1620 College Biology II 1
- BIOL 1625 College Biology II Laboratory 12
- Complete 12 upper-division credits from any BIOL, BOT, MICR, or ZOOL courses with a grade of C- or higher in each. BIOL 495R, BIOL 499R, ZOOL 3080, or ZOOL 4080 cannot be used to meet this requirement.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

BIOL 1010 BB
General Biology†
3:3:0 Su, F, Sp

- Prerequisite: None, however an assessment DRP score of at least 77 is strongly recommended

Addresses the history of biological discovery, our current understanding of the science, and inquires about where our research may lead us. A general education course introducing cellular and molecular biology, genetics, diversity, evolution, and ecology. May be used as prerequisite for some departmental courses.

BIOL 1015
General Biology Laboratory
1:0:2 Su, F, Sp

A general laboratory experience covering introductory topics in general biology. Designed to complement 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, field excursions and an introduction to techniques used in the study of life.

BIOL 1070 BB
Genetics
3:3:0 F, Sp

- Prerequisite: None, BIOL 1010 and an assessment DRP score of at least 77 are strongly recommended

An introductory genetics course 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 the role of population genetics in the evolution of living organisms.

BIOL 1200 (Cross-listed as GEO 1020) BB
Prehistoric Life
3:3:0 Sp

- Prerequisite: 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 as ANTH 1500) BB
Physical Anthropology
3:3:0 F

- Prerequisite: ENGL 1010 and (ANTH 1010 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.

BIOL 1610 BB
College Biology I
4:4:0 F, Sp
• Prerequisite: An assessment DRP score of at least 85
• Corequisite: BIOL 1615
Designed to give biology majors a broad exposure to many aspects of the life sciences. Covers topics of biochemistry, energetics, cell structure and function, genetics, and evolution..

BIOL 1615
College Biology I Laboratory
1:0:2 F, Sp
• Corequisite: 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..

BIOL 1620
College Biology II
3:3:0 F, Su, Sp
• Prerequisite: BIOL 1610
• Corequisite: BIOL 1625
Provides the second semester material in the two semester introductory course designed for biology majors. Covers origin and early evolution of life, plant structure and function, plant diversity, animal structure and function, animal diversity, and animal behavior.

BIOL 1625
College Biology II Laboratory
1:0:2 Su, F, Sp
• Corequisite: BIOL 1620
Laboratory course to accompany BIOL 1620. Topics covered include animal biology and diversity and plant biology and diversity.

BIOL 202R (Cross-listed as GEO 202R)
Science Excursion
1:0:2 Su, F, Sp
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.

BIOL 204R (Cross-listed as GEO 204R) BB
Natural History Excursion
3:1:6 Su, F, Sp
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.

BIOL 2500 BB
Environmental Biology
3:3:0 F, Sp
• Prerequisite: An assessment DRP score of at least 85, BIOL 1010 or BIOL 1610 is recommended
Designed to acquaint students with the principles of ecology emphasizing population dynamics, energetics, structural components, and concepts of niche and succession. 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
3:3:0 On Sufficient Demand
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 GB
Independent Studies in Life Sciences
1-4:0:3-12 Su, F, Sp
• Prerequisite: 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. Students will prepare oral and written reports of their projects.

BIOL 3300
Developmental Biology
3:3:0 SP
• Prerequisite: BIOL 1620
Examines the principles of Developmental Biology with emphasis on the specialization of cells and their organization into body plans. Recommended for Biology Majors interested in developmental processes.

BIOL 3400
Cell Biology
3:3:0 F, Sp
• Prerequisite: BIOL 1610 and CHEM 1220
For Biology majors or those desiring more knowledge of this subject. Studies the cell as an organism emphasizing structure and function correlations.

BIOL 3405
Cell Biology Laboratory
1:0:2 F, Sp
• Prerequisite: BIOL 1610 AND CHEM 1220
• Corequisite: 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.

BIOL 3500
Molecular Genetics
3:3:0 F, Sp
• Prerequisite: BIOL 1610
For Biology majors. Studies 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. Successful completers of this course should possess an understanding of the basic principles of genetics and be prepared for more advanced courses in other aspects of biology.

BIOL 3515
Advanced Genetics Laboratory
2:1:4 F
• Prerequisite: BIOL 3500
Examines advanced aspects of classical and molecular genetic transmission and analysis. Provides hands-on experience with the methods of classical and molecular genetics.

BIOL 3550
Molecular Biology
3:3:0 F
• Prerequisite: BIOL 1620 and CHEM 1215
Examines structure, organization, replication, and expression of the genome, and methods for study of genome structure and function.

BIOL 3600 (Cross-listed as CHEM 3600)
Biological Chemistry
3:3:0 F, Sp
• Prerequisite: CHEM 2320
Introduces principles of the chemical processes that define living organisms. Covers structure and function of proteins, carbohydrates, lipids, and nucleic acids. Explores metabolic pathways, biosynthesis, enzymatics, thermodynamics, membrane dynamics and related processes within a living cell. Emphasizes molecular mechanisms of reactions and their outcomes.

BIOL 3605 (Cross-listed as CHEM 3605)
Biochemistry Laboratory
1:0:4 On Sufficient Demand
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.

BIOL 3650
Biotechnology
2:1:3 Sp
• Prerequisite: MICR 3450, BIOL 3600
• Corequisite: BIOL 3500
Primarily for students majoring in Biology. Teaches principles of biotechnology including DNA purification and cloning, protein expression and analysis. Studies DNA sequencing, restriction fragment length polymorphism analysis, electrophoresis, cell culture, and polymerase chain reaction techniques. Includes laboratory experience.

BIOL 3700
General Ecology
3:3:0 F, Sp
• Prerequisite: BIOL 1620 (or equivalent with instructor consent)
Introduces the relationships between organisms and their environment, including population, community and ecosystem processes. Specific topics include adaptation to abiotic factors and the influence of these factors on distribution and abundance; survivorship, age structure, and growth of populations; life history patterns, species interactions, community structure and diversity, biome structure and distribution, and energy flow and nutrient cycles in ecosystems. Also presents the impact of humans on ecological processes.

BIOL 3705
General Ecology Laboratory
1:0:2 F
• Corequisite: 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.

BIOL 3800†
Conservation Biology
3:3:0 Sp
• Prerequisite: BIOL 1010 or BIOL 1620 (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.

BIOL 4000
Freshwater Ecology
4:3:2 Su
• Prerequisite: BIOL 1620 and (BIOL 2500 or 3700)
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.

BIOL 4200 (Cross-listed as CHEM 4200, GEO 4200)
Teaching Methods in Science
3:3:0 Sp
• Prerequisite: Acceptance into secondary education program and department approval
Examines objectives, 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.

BIOL 425R
Biology for Teachers
1-5:1-5:0-10 Su
• Prerequisite: Departmental Approval
For licensed teachers or teachers seeking to recertify, an update course in biology content and/or basic biology courses for the 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. 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.

BIOL 4450
Immunology
3:3:0 Sp, Odd Years
• Prerequisite: MICR 2060 or MICR 3450 or ZOOL 2420
• Corequisite: BIOL 4455
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.

BIOL 4455
Immunology Laboratory
1:0:2 Sp, Odd Years
• Corequisite: 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.

BIOL 4500
Principles of Evolution
3:3:0 F, Sp
• Prerequisite: BIOL 1620 and BIOL 3500 and minimum of 6 additional credits upper division biology (BIOL, BOT, MICR, ZOOL) courses.
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. Successful completers of this course will possess an understanding of the principles of evolution and be able to explain the various aspects of natural selection and speciation.

BIOL 490R
Special Topics in Biology
1-4:0-4:0-8 On Sufficient Demand
• Prerequisite: BIOL 1620
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 494R
Seminar
1:1:0 F, Sp
• Prerequisite: BIOL 1620 and instructor approval
For students in their junior or senior year. Students will do research and give presentations on assigned Biology topics in specific areas of current research in Biology. Students select a faculty supervisor and research topic prior to enrollment in this course. Requires attendance at research seminars. May be repeated for up to five credits toward graduation.

BIOL 495R
Student Research
1-4:0:3-12 Su, F, Sp
• Prerequisite: BIOL 1620, CHEM 1210, Junior or Senior Standing, and instructor permission
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. Results may form the basis of the senior thesis in the major, if thesis option is chosen. May be repeated for six credits.

BIOL 499R
Senior Thesis
1-2:0:3-6 Su, F, Sp
• Prerequisite: ENGL 2010 or 2020, junior standing and instructor permission
For students who are nearing completion of a baccalaureate degree in Biology 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 495R. Provides experience in critically analyzing published literature and, if laboratory/field research was performed, comparing research results with the scientific literature. 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 Depart-

ment of Biology seminar. May be repeated once for a total of four credits.

BOT 2050 BB
Field Botany
3:2:3 F
• Prerequisite: None, BIOL 1010 or BOT 2400 recommended; also, an assessment DRP score of at least 77 is strongly recommended
For biology majors and non-majors. Covers the classification, identification, and ecology of woody plants with an emphasis on native trees and shrubs. Students completing the course should be able to identify common trees and shrubs native to Utah. Includes field trips and laboratory work. Student plant collection required.

BOT 2100 BB
Flora of Utah
3:2:3 Su
• Prerequisite: None, BIOL 1010 is recommended
A vascular plant taxonomy course for intended 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. Student plant collection required.

BOT 2400 BB
Plant Kingdom
4:3:2 F, Sp
• Prerequisite: BIOL 1010 or BIOL 1610 or instructor permission
Surveys of the Divisions (Phyla) traditionally studied by botanists, emphasizing structure, reproduction, systematics, and evolution. Completers should be familiar with the morphological features of the major prokaryotic, fungal, algal, and plant groups. Includes a weekly laboratory.

BOT 3340
Plant Biology
4:3:2 F
• Prerequisite: BIOL 1620 and CHEM 1220
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). Includes weekly laboratory.

BOT 4200
Vascular Plant Taxonomy
3:2:2 Sp
• Prerequisite: (BOT 2050 or BOT 2100), (BIOL 1010 or BIOL 1620)
Covers principles of botanical nomenclature, classification, and identification, as well as the techniques involved in gathering and analyzing taxonomic data. Includes field trips and weekly laboratory.

BOT 4300
Wildland Shrubs
3:2:2 F
• Prerequisite: BOT 2050 or BOT 2100 or BOT 4200
Explores the diversity and biology of woody plants in Utah and their ecological importance. Field trips required.

BOT 4500
Introduction to Grasses
3:2:2 F
• Prerequisite: (BOT 2050 or BOT 2100), (BIOL 1010 or BIOL 1620)
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
3:3:0 Sp, Odd Years
• Prerequisite: BIOL 1620 and CHEM 1220
• Corequisite: 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
1:0:3 Sp, Odd Years
• Corequisite: BOT 4600
Focuses on laboratory aspects of topics in BOT 4600. Covers experimentational methods for studying plant physiological processes such as respiration, photosynthesis, mineral nutrition, transpiration and tissue-water relations.

LFSC 281R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: Approval of Cooperative Coordinator
Designed for Biology 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.

MICR 2060† BB
Microbiology for Health Professions
4:3:2 Su, F, Sp
• Prerequisite: BIOL 1010 or BIOL 1610, ENGL 1010 or an assessment DRP score of 77 or above required. CHEM 1110 highly recommended.
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.

MICR 3200
Emerging and Re-Emerging Diseases and Zoonoses
3:3:0 On Sufficient Demand
• Prerequisite: BIOL 1620 and (MICR 2060 or MICR 3450)
Utilizes the most current infectious disease entities as examples for new (emerging) or old (re-emerging) diseases currently affecting mankind. Also 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. Also 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 and the reasons for these failures. Investigates historical aspects of infectious diseases. Requires a written paper and a presentation on the disease entity of the student's choosing.

MICR 3450
General Microbiology
4:3:2 F
• Prerequisite: BIOL 1620 and BIOL 3400 and CHEM 1220 required, BIOL 3500 and BIOL 3600 recommended
Covers taxonomy, physiology and genetics of prokaryotes (bacteria, Archaea), viruses and eukaryotic pathogens. Introduces industrial microbiology, biotechnology, and immunology and the biochemical basis of infectious diseases. Designed for biology majors who desire an in-depth coverage of microbiology. Includes weekly laboratory.

MICR 4300
Pathogenic Microbiology
4:3:2 Sp, Odd Years
• Prerequisite: MICR 3450 or MICR 2060 with instructor consent
Discusses fundamentals of immune mechanisms, pathogenesis, replication, and infection. Explores bacterial, viral, fungal, protozoan, and helminth pathogens. Discusses identification, control, and treatments. Includes weekly laboratory.

MICR 4500
Virology
3:3:0 F, Even Years
• Prerequisite: BIOL 3400 and BIOL 3600
Examines the fundamentals of virology. Covers viral structure, biochemistry, genomics, viral multiplication cycles in prokaryotic and eukaryotic cells, and techniques used in viral studies. Also discusses viral diseases, transmission, therapy, evolution, and epidemiology.

ZOOL 1090 BB
Introduction to Human Anatomy and Physiology
3:3:0 Su, F, Sp
• Prerequisite: 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 cel-

lular, 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 BB
Human Anatomy
4:3:3 Su, F, Sp
- Prerequisite: 1. BIOL 1010 (or BIOL 1610), ENGL 1010 or 2. assessment exam scores of: Reading DRP 85 or higher, English Writing skills 80 or higher, Pre-algebra 70 or higher, Algebra 31 or higher or 3. Written permission of the Anatomy program coordinator.

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.

ZOOL 2400 BB
Animal Kingdom
4:3:2 Sp
- Prerequisite: BIOL 1010 or BIOL 1610 or instructor's permission

Covers the animal kingdom and surveys its world-wide diversity, emphasizing the major animal phyla from the invertebrates through the vertebrates. Emphasizes structure, reproduction, behavior, ecology, conservation, systematics and evolution. Includes a weekly laboratory.

ZOOL 2420**
Human Physiology
4:3:3 Su, F, Sp
- Prerequisite: (BIOL 1010 or BIOL 1610) and CHEM 1110

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 3080
Pre-Dental Orientation
3:2:2 F
- Prerequisite: ZOOL 2320 and ZOOL 2420 and junior standing

Designed for students who plan to apply for admission to dental schools. Basic course designed to introduce students to the art, science, and practice of dentistry. Subjects include dental terminology, tooth morphology, dental materials, dental school application and curriculum and the professional career. Includes weekly laboratory. Will not count toward the departmental upper-division elective requirement.

ZOOL 3100
Vertebrate Zoology
4:3:2 F
- Prerequisite: BIOL 1010 or 1620 and student assessment scores as listed in BIOL 1610

Designed for intended 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. Covers the evolutionary development of the vertebrates pertaining to major skeletal and physiological adaptations. The approach is also ecological as to vertebrate habitat requirements, their distribution, and community roles. Includes weekly laboratory.

ZOOL 3200
Invertebrate Zoology
4:3:2 Sp
- Prerequisite: BIOL 1010

A course for intended Zoology and Biology majors covering the anatomy, physiology, systematics, evolution and ecology of invertebrate animals. Includes field trips and weekly laboratory.

ZOOL 3300
Herpetology
3:2:2 Sp, Even Years
- Prerequisite: BIOL 1610 and BIOL 1620

Covers the evolution, ecology, and diversity of reptiles and amphibians. Includes active class discussions, oral presentations. Emphasizes native Utah herpetofauna. Includes weekly laboratory and required field trips.

ZOOL 3500
Mammalogy
4:3:2 F, Odd years
- Prerequisite: BIOL 1620 required. ZOOL 3100 strongly recommended

Explores the taxonomy, morphology, behavior, ecology, evolution, development, and conservation of mammals. Includes three weekly lectures and a weekly laboratory.

ZOOL 3700 (Cross-listed as PES 3700)
Exercise Physiology
4:3:3 F
- Prerequisite: ZOOL 1090 or (ZOOL 2320 and ZOOL 2420), MATH 1050

For Physical Education or Education majors with an emphasis in physical education, specializing in coaching, or athletic training. Studies physiological response to exercise. Addresses clinical applications. Includes weekly laboratory.

ZOOL 4000
Animal Behavior
3:3:0 Sp
- Prerequisite: BIOL 1620 and ZOOL 3100

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. Specific topics include the genetic basis of behavior, perceptual and effectual systems, ethology, neurophysiology, learning, animal communication, sexual behavior, and social systems.

ZOOL 4080
Dental Observation
3:0:8 Sp
- Prerequisite: ZOOL 3080 and Departmental Approval

Offers clinical experience credit for students who plan to apply for admission to dental schools (arranged by student with local dentist and through Departmental Advisor). Includes weekly chair-side observation with a local dentist and performance of laboratory procedures as approved by the dentist. Requires a daily journal and paper summarizing the experience. Will not count toward the departmental upper-division elective requirement.

ZOOL 4100
Parasitology
4:3:2 Sp, Even Years
- Prerequisite: BIOL 1620, (ZOOL 3200 recommended)

Introduces the study of parasites. Emphasizes the biology of principal groups of parasites affecting humans and livestock, including their medical and economic significance. Laboratory experience will involve identification of parasites. Includes weekly laboratory.

ZOOL 4300
Histology
4:3:2 F, Odd Years
- Prerequisite: (ZOOL 2320 or 232H) or written permission of the instructor

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.

ZOOL 4400
Pathophysiology
4:4:0 Su, F, Sp
- Prerequisite: ZOOL 2320, ZOOL 2420, and MICR 2060

For Biology majors with an emphasis in human physiology, pre-professional majors, and nursing students. Studies pathophysiological etiology and mechanisms that cause disease and altered physiological control and function of organs and organ systems. Emphasizes the gross histopathological and physiological alterations that occur in various disease states.

ZOOL 4500
Comparative Vertebrate Zoology
4:3:3 Sp, Even Years
- Prerequisite: (BIOL 1010 or BIOL 1610) or (ZOOL 1090 or ZOOL 2320); and (ENGL 1010 with a grade of C- or better)

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. Includes weekly laboratory.

ZOOL 4600
Ornithology
4:3:2 F, Even Years
- Prerequisite: BIOL 1620, ZOOL 3100 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.

ZOOL 4700
Advanced Anatomy
3:2:3 F, Sp
• Prerequisite: ZOOL 2320 and Student Teaching Assistant (STA) status or permission of the anatomy program coordinator
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, and palpation of the body. 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.

ZOOL 4750
Human Physiology A Cell Biology Approach
4:3:3 Not 05-06
• Prerequisite: BIOL 3400
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. Students will be required to use problem solving and analytical thinking skills to be successful in the class. Includes weekly laboratory.

ZOOL 4780
Neuroscience
4:4:0 On Sufficient Demand
• Prerequisite: ZOOL 2420
Focuses on neurobiology and neuroscience, covering 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. Topics to be covered include neuroanatomy and developmental neurobiology, electrophysiology and 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, among others. Incorporates discussion of journal articles related to the latest advances in neuroscience. Requires students write a paper on a neuroscience topic of interest to them.

BUILDING CONSTRUCTION AND CONSTRUCTION MANAGEMENT

Department Chair: Steve Fordham

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Telephone: 801-863-8167

Program Coordinator: Bob Dunn
Office: GT 613a
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Faculty:
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Bob Dunn
Associate Professor
Fred Davis
Assistant Professor
DeWayne Erdmann
Eric Linfield

Office Manager/Advisor: Jennifer Merkley
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Advisory Committee: Robert Hansen, Financial Fusion Inc.; Scott Kendal, Scott Kendal Construction; Steve Metler, Metler Brother's Construction; Shawn Reeves, Industrial Supply; Monte Mecham, Monte Mecham Construction; Ray Peterson, Anderson Lumber; Eugene Metler, Metler Brother's Construction; Jim Baird, BMC West Building Materials.

School of Computing, Engineering and Technology

Dean: Thomas McFarland
Office: CS 720b
Telephone: 801-863-8995

CAREER OPPORTUNITIES

Graduates from the Building Construction program (one-year certificate) are prepared to read architectural drawings, lay-out framing, frame walls, roofs, and stairs, shingle roofs, apply siding, install doors, windows, and interior trim.

Graduates of the two-year Building Construction and Construction Management program are prepared for employment as construction foremen, job superintendents, project managers, or one year applies to contractor's license experience.

PROGRAMS

Students may earn a One-Year Certificate or an Associate in Applied Science Degree or an Associate in Science Degree in Building Construction and Construction Management. Students may also earn a Bachelor of Science in Technology Management Degree. All Technical Speciality courses must be completed with a "C-" grade or better.

Reminder: an overall grade point average of 2.0 (C) or above is required for graduation.

CERTIFICATE IN BUILDING CONSTRUCTION — 31 CREDITS

Discipline Core Requirements:			31 Credits
• BCCM	1110	Principles of Residential Framing	3
• BCCM	1120	Blueprint Reading	2
• BCCM	1130	Concrete and Masonry	1
• BCCM	1160	Stair Design and Construction	1
• BCCM	1190	Framing and Concrete Lab	5
• BCCM	1210	Principles of Finish Carpentry	3
• BCCM	1220	Finishing Lab*	5
• BCCM	1230	Construction Estimating	2
• BCCM	1240	Roof Framing	2
• BCCM	1250	Utah Contractors License Law	2
• BIT	1010	Building Codes	
or BIT	1020	Residential Codes	3
• CAW	2310	Cabinetry Math	
or DT	1600	Technical Math (Algebra)**	2

Graduation Requirements:
1 Completion of a minimum of 31 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 Complete all Technical Specialty courses with a minimum grade of "C-" or better.

Note:
**Take DT 1600 if planning to complete AAS degree.

AAS IN BUILDING CONSTRUCTION AND CONSTRUCTION MANAGEMENT — 65 CREDITS

General Education Requirements:			16 Credits
• BCCM	1150	Building Construction Safety	1
• DT	1600	Technical Math (Algebra)	3
• ENGL	1010	Introduction to Writing	3
• Biology/Physical Science			3
• Humanities/Fine Arts			3
• Social Science			3
Discipline Core Requirements:			**49 Credits**
• BCCM	1110	Principles of Residential Framing	3
• BCCM	1120	Blueprint Reading	2
• BCCM	1130	Concrete and Masonry	1
• BCCM	1160	Stair Design and Construction	1
• BCCM	1190	Framing and Concrete Lab	5
• BCCM	1210	Principles of Finish Carpentry	3
• BCCM	1220	Finishing Lab	5
• BCCM	1230	Construction Estimating	2
• BCCM	1240	Roof Framing	2
• BCCM	1250	Utah Contractor's License Regulation & Procedure	2
• BCCM	1260	Computer Estimating	2
• BCCM	1270	Construction Scheduling	2
• ACC	2010	Financial Accounting	3
• BIT	1010	Building Codes	3
or BIT	1020	Residential Codes	
• DT	1040	Computer Aided Drafting - AutoCAD	3
• DT	1090	Intro to Architecture Drafting	3
• DT	1400	Surveying	4
• MGMT	3170	Entrepreneurship	3

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 UVSC.
4 Completion of GE and specified departmental requirements.
5 Complete all Technical Specialty courses with a minimum grade of "C-" or better.

AS PRE MAJOR IN BUILDING CONSTRUCTION AND CONSTRUCTION MANAGEMENT — 63 CREDITS

General Education Requirements:	35 Credits
• Complete General Education requirements as detailed in the General Education section of this catalog.	
Discipline Core Requirements:	**16 Credits**
• Choose from BCCM 1000 level or higher	16
Elective Requirements:	**12 Credits**
• Any course 1000 level or higher	12

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 UVSC.
4 Completion of GE and specified departmental requirements.

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

The following technical area of specialization is available (see the Technology Management section of this catalog for complete degree requirement listings).

Building Construction and Construction Management

Specialty Core Requirements:			45 Credits
• BCCM	1110	Principles of Residential Framing	3
• BCCM	1120	Blueprint Reading	2
• BCCM	1130	Concrete and Masonry	1
• BCCM	1150	Building Construction Safety	1
• BCCM	1160	Stair Design & Construction	1
• BCCM	1190	Framing and Concrete Lab	5
• BCCM	1210	Principles of Finish Carpentry	3
• BCCM	1220	Finishing Lab	5
• BCCM	1230	Construction Estimating	2
• BCCM	1240	Roof Framing	2
• BCCM	1250	Utah Contractors License Regulation & Procedure	2
• BCCM	1260	Computer Estimating	2
• BCCM	1270	Construction Scheduling	2
• BCCM	299R	VICA	1
• BIT	1010	Building Codes	3
or BIT	1020	Residential Codes	
• DT	1040	Computer Aided Drafting - AutoCAD	3
• DT	1090	Intro to Architecture Drafting	3
• DT	1400	Surveying	4

NOTES:
No upper division Technology Management (i.e. Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

Due to the technical nature of the material in BCCM courses, additional reading and math instruction may be required. More information will be given during advisement.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

BCCM 1110
Principles of Residential Framing
3:3:0 — **Su, F, Sp**

For first year Building Construction and Construction Management students and interested community members. Studies basic principles of

wood framing from sill plate through rafters. Includes guest lectures, field trips, and associated lab.

BCCM 1120
Blueprint Reading
2:2:0 Su, F, Sp
Studies theory of projection, architectural symbols, relationships of views and measurements, plans and elevation views, sections, and details. Covers residential and commercial blueprint reading.

BCCM 1130
Concrete and Masonry
1:1:0 Su, F, Sp
Studies fundamental principles of quality concrete and masonry, including admixtures and proper techniques of placing, curing, and testing. Also includes practical experience in concrete block and brick construction laying. Uses assigned written and oral response.

BCCM 1150
Building Construction Safety
1:1:0 Su, F, Sp
Includes OSHA and common safety rules for hand-tools, power-tools, ladders, scaffolds, etc. Covers disposal of hazardous wastes and maintenance of a clean environment.

BCCM 1160
Stair Design and Construction
1:1:0 Su, F, Sp
Studies the principles of mathematically correct stairs along with the various styles and types of stair cases. Analyzes residential and commercial problems in accordance with building codes.

BCCM 1190
Framing and Concrete Lab
5:0:15 F
Provides practical lab experience in concrete work and framing from sill plate through rafters. Includes supervisory and group decision making practice.

BCCM 1210
Principles of Finish Carpentry
3:3:0 Su, F, Sp
For second-year Building Construction students and interested community members. Covers installation of doors, window casings, moldings, paneling, gypsum board, floor materials, cabinets, siding, and roofing.

BCCM 1220
Finishing Lab
5:0:15 Sp
Provides practical lab experience in interior finishing including doors, windows, moldings, gypsum board, cabinets, siding, and roofing.

BCCM 1230
Construction Estimating
2:2:0 Su, F, Sp
Studies step-by-step procedures used to estimate and prepare material and labor. Makes complete estimating data sheets from working drawings and specifications. Completers should be able to enter the field as estimating trainees.

BCCM 1240
Roof Framing
2:2:0 Su, F, Sp
Studies basic principles of all types of roof framing. Includes practical lab experience in laying out and cutting rafters. Completers of the first semester courses and this course should be able to enter the construction field as trainees.

BCCM 1250
Utah Contractors License Regulation and Procedure
2:2:0 F, Sp
Focuses on student preparation for the Utah Contractors Business Law Exam. Surveys legal business entities. Studies Utah license law, good construction management practices, lien laws, labor laws, and tax laws.

BCCM 1260
Computer Estimating
2:2:0 Su, F, Sp
• Prerequisite: BCCM 1230 or estimating experience
For Building Construction majors and other students interested in estimating using computer applications based on Timberline Software. Studies different industry data bases, performing takeoffs, creating estimates, bids, and reports.

BCCM 1270
Construction Scheduling
2:2:0 Su, F, Sp
For Building Construction majors and other students interested in scheduling using computer applications based on scheduling software. Emphasizes planning, scheduling, and controlling resources and costs.

BCCM 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: BCCM 285R first time only
For Building Construction and Construction Management 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 taken twice for credit.

BCCM 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: BCCM 281R first time only
For Building Construction and Construction Management 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. 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 taken twice for credit.

BCCM 299R
VICA
1:1:0 F, Sp
For Building Construction and Construction Management 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. May be taken once a year for two years (two credits total).

BUILDING INSPECTION TECHNOLOGY

Department Chairperson: Steve Fordham

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Telephone: 801-863-8167

Program Coordinator: Fred Davis
Office: GT 615
Telephone: 801-863-8861

Faculty:
Professor
Bob Dunn
Associate Professor
Fred Davis
Assistant Professor
DeWayne Erdmann
Eric Linfield

Office Manager/Advisor: Jennifer Merkley
Office: GT 613e
Telephone: 801-863-7405

Advisory Committee: Chuck Hugo, Provo City Building Official; Bill Bell, Building Safety Division Manager; Donna Jackson, Midvale City Building Official; Gilbert Gonzales, Murray City Assistant Building Official; Dave Johnson, Public Works Director/Building Official.

School of Computing, Engineering and Technology

Dean: Thomas McFarland
Office: CS 720b
Telephone: 801-863-8995

CAREER OPPORTUNITIES

Graduates of this program will be better equipped to find employment in building inspection, building construction, and construction supervision. In addition, this curriculum will provide supporting instruction for those students in the construction trades as well as architectural and engineering drafting programs.

PROGRAMS

Students may earn a One-Year Certificate, an Associate in Applied Science Degree, or a Bachelor of Science in Technology Management Degree in Building Inspection Technology. All courses must be completed with a "C-" grade or better.

Reminder: an overall grade point average of 2.0 (C) or above is required for graduation.

CERTIFICATE IN BUILDING INSPECTION TECHNOLOGY — 30 CREDITS

Discipline Core Requirements:			30 Credits
• COMM	2110	Interpersonal Communication	3
• BIT	1010	Building Codes	3
• BIT	1170	Field Lab Building Codes	1
• BIT	1240	Plumbing Codes	3
• BIT	1330	Mechanical Codes	3
• BIT	1340	Electrical Codes	3
• BIT	1380	Ride Along Lab	1
• BCCM	1110	Principles of Residential Framing	3
• BCCM	1120	Blueprint Reading	2
• BCCM	1130	Concrete and Masonry	1
• BCCM	1150	Building Construction Safety	1
• BCCM	1160	Stair Design and Construction	1
• BCCM	1240	Roof Framing	2
• FSO	2030	Fire Inspector I	3

AAS IN BUILDING INSPECTION TECHNOLOGY — 63 CREDITS

General Education Requirements:			16 Credits
• BCCM	1150	Building Construction Safety	1
• COMM	1020	Public Speaking	3
• COMM	2110	Interpersonal Communication	3
• DT	1600	Technical Math (Algebra)	3
or MATH	1050	College Algebra	
• ENGL	1010	Introduction to Writing	3
• Biology/Physical Science			3
Discipline Core Requirements:			**47 Credits**
• BIT	1010	Building Codes	3
• BIT	1170	Field Lab-Building Codes	1
• BIT	1230	Plan Review	3
• BIT	1240	Plumbing Codes	3
• BIT	1330	Mechanical Codes	3
• BIT	1340	Electrical Codes	3
• BIT	1380	Ride Along Lab	1
• BCCM	1110	Principles of Residential Framing	3
• BCCM	1120	Blueprint Reading	2
• BCCM	1130	Concrete and Masonry	1
• BCCM	1160	Stair Design and Construction	1
• BCCM	1190	Framing and Concrete Lab	5
• BCCM	1240	Roof Framing	2
• DT	1040	Computer Aided Drafting - AutoCAD	3
• DT	1400	Surveying	4
• FSO	2030	Fire Inspector I	3
• ISYS	1050	Basic Computer Suite Applications	3
• MGMT	1250	Principles of Leadership	3

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 UVSC.
4 Completion of GE and specified departmental requirements.

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Building Inspection Technology

Specialty Core Requirements:			45 Credits
• BIT	1010	Building Codes	3
• BIT	1170	Field Lab-Building Codes	1
• BIT	1230	Plan Review	3
• BIT	1240	Plumbing Codes	3
• BIT	1330	Mechanical Codes	3
• BIT	1340	Electrical Codes	3
• BIT	1380	Ride Along Lab	1
• BCCM	1110	Principles of Residential Framing	3
• BCCM	1120	Blueprint Reading	2
• BCCM	1130	Concrete and Masonry	1
• BCCM	1150	Building Construction Safety	1
• BCCM	1160	Stair Design and Construction	1
• BCCM	1190	Framing and Concrete Lab	5
• BCCM	1240	Roof Framing	2
• DT	1040	Computer Aided Drafting - AutoCAD	3
• DT	1400	Surveying	4
• DT	1600	Technical Math (Algebra)	3
• FSO	2030	Fire Inspector I	3

NOTES:
No upper division Technology Management (i.e. Technology Management or Business Management) course work older than six years can be counted toward graduation.

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

Due to the technical nature of the material in the BIT courses, additional reading and math instruction may be required. More information will be given during advisement.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

BIT 1010
Building Codes
3:3:0 — **Su, F, Sp**
Teaches the nonstructural standards of the Uniform Building Code. Includes occupancy classifications, building area, height and location limits, exit requirements, and fire-resistive standards.

BIT 1020
Residential Codes
3:3:0 — **F, Sp**
Teaches the nonstructural standards of the International Residential Code. Includes foundations, walls, floors, roofs, finishes, heating, cooling, plumbing and electrical codes as they apply to residential construction.

BIT 1170
Field Lab—Building Codes
1:0:3 — **Su, F, Sp**
For students, building inspectors, architects, and builders. Provides practical on-the-job experience in inspecting footings, foundation walls, reinforcement steel, the building structure, and interior and exterior coverings.

BIT 1230
Plan Review
3:3:0 — **F, Sp**
• Prerequisite: BIT 1010 or instructor's approval.
Designed to introduce students to the techniques of nonstructural plans examination through familiarization of the plan and construction documents, specifications, and the application of code requirements.

BIT 1240
Plumbing Codes
3:3:0 Su, F, Sp
A comprehensive study of plumbing code requirements relating to the principles of plumbing design, materials, installation standards, water and gas distribution systems, storm and sanitary sewer systems, water heaters, and mobile home connections.

BIT 1330
Mechanical Codes
3:3:0 Su, F, Sp
This is a comprehensive course which covers the entire Uniform Mechanical Code. Students will gain a working knowledge of requirements for mechanical systems, including heating, cooling, ducts, ventilation, refrigeration, kitchen hood and ducts, fuel-gas piping, appliance venting, combustion air, and related requirements.

BIT 1340
Electrical Codes
3:3:0 Su, F, Sp
Studies the National Electrical Code in its entirety. Covers electrical wiring systems, methods, electrical equipment, special occupancies, special equipment, special conditions, and communication systems.

BIT 1380
Ride-Along Lab
1:0:3 Su, F, Sp
For students, building inspectors, architects, and builders. Students will accompany a building inspector as he or she conducts on-the-job inspections. There will be a rotation system established to give students experience in a variety of jurisdictions. This class is for fourth-semester students only.

BIT 281R
Cooperative Work Experience
1-8:0:5-40 F, Sp
• Corequisite: BIT 285R the first time only
For Building Inspection 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. Take up to 16 credits total between BIT 281R and BIT 285R.

BIT 285R
Cooperative Correlated Class
1:1:0 F, Sp
• Corequisite: BIT 281R the first time only
For Building Inspection 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 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. Take up to 16 credits total between BIT 281R and BIT 285R.

BUSINESS MANAGEMENT

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Faculty:
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Deborah Baird
Greg Berry
Larry Hartman
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Susan Madsen
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Lynn Adams
Charles Cozzens
Deloras D. Jones
David N. McArthur
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Lecturers
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CAREER OPPORTUNITIES

For those trained in business management areas, many opportunities exist in private industry, government, and entrepreneurship fields. Possible occupational areas may include: human resource supervision, industrial management, communications, marketing, and international business.

JOB OUTLOOK

Job demand is high, particularly in larger metropolitan areas; and the employment outlook is excellent.

PROGRAMS

Students majoring in business management may receive a Certificate, an Associate in Applied Science in Business Management, an Associate in Science with a pre-major in Business, or a Bachelor of Science Degree with a specialization in one of the following six areas: Entrepreneurship, Finance and Banking, General Business, Hospitality Management, International Business, or Marketing. An Associate in Science School of Business transfer degree is available for students planning to transfer to another college or university in Utah. (See the School of Business section of the catalog for details on the AS degree.)

CERTIFICATE IN BUSINESS MANAGEMENT — 30 CREDITS

Discipline Core Requirements:			**24 Credits**
• MGMT	1010	Introduction to Business	3
• MGMT	1060	Personal Finance	3
• MGMT	2200	Written Business Communication	3
• MGMT	2390	Effective Business Presentations	3
• ACC	1150	Fundamentals of Business Math	3
• ACC	2010	Financial Accounting	3
• ISYS	1050	Basic Computer Applications*	3
• ECON	1010	Economics as a Social Science	3
Elective Requirements:			**6 Credits**
• Choose six credits of business electives from the MGMT, ACC, BUS, HM, ISYS, or LEGL prefixes. A maximum of 3 credits may be cooperative work experience.			6

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 required courses.
3 Residency hours: Minimum of 10 credit hours through course attendance at UVSC with at least 12 credits of School of Business courses.

Note:
*Students will be required to complete the business computer proficiency exam with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher on each of the six modules.

AAS IN BUSINESS MANAGEMENT — 65 CREDITS

General Education Requirements:			**17 Credits**
• ENGL	1010	Introduction to Writing	3
• MAT	1010	Intermediate Algebra	4
• Any approved Humanities, Fine Arts, or Foreign Language Distribution Course			3
• ECON	1010	Economics as a Social Science	3
• Any approved Biology or Physical Science Course			3
• Any approved Physical Education, Health, Safety or Environment Course			1
Discipline Core Requirements:			**30 Credits**
• ACC	2010	Financial Accounting	3
• ACC	2020	Managerial Accounting	3
• ISYS	1050	Basic Computer Applications*	3
or Business Computer Proficiency Exam*			
• LEGL	3000	Business Law	3
• MGMT	1010	Introduction to Business	3
• MGMT	1060	Personal Finance	3
• MGMT	2200	Written Business Communication	3
• MGMT	2390	Effective Business Presentations	3
• MGMT	3010	Principles of Management	3
• MGMT	3600	Principles of Marketing	3
Elective Requirements:			**18 Credits**
• Any ACC, CJ, HM, MGMT, ISYS, or LEGL Course 1000 or higher**			9
• General Education Electives (select from Distribution List):			9

Graduation Requirements:
1 Completion of a minimum of 65 semester credits.
2 Overall grade point average of 2.0 (C) or above with 2.5 required for all School of Business courses. No grade below C- in required courses.

AAS IN BUSINESS MANAGEMENT (CON'T) — 65 CREDITS

3 Residency hours: minimum of 20 credit hours through course attendance at UVSC with at least 12 credits of School of Business courses.
4 Completion of GE and specified departmental requirements.

Notes:
*Students will be required to complete the business computer proficiency exam with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher in each of the six modules.
**No more than three credits of MGMT 281R Cooperative Work Experience will be allowed as a business elective; see advisor for further recommendations.
Overall grade point average of 2.5 required for upper division status.

AS, EMPHASIS IN BUSINESS — 60 CREDITS

General Education Requirements:			**36 Credits**
ENGL	1010	Introduction to Writing	3
ENGL	2010	Intermediate Writing: Humanities/ Social Science	3
or ENGL	2020	Intermediate Writing: Science/ Technology	
Complete one of the following:			
MATH	1050	College Algebra	4
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	
and HIST	2710	US History since 1877	
HIST	1700	American Civilization	
ECON	1740	US Economic History	
POLS	1000	American Heritage	
POLS	1100	American National Government	
Complete the following:			
PHIL	2050	Ethics and Values	3
HLTH	1100	Personal Health & Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses			
Biology			3
Physical Science			3
Additional Biology or Physical Science			3
Behavioral/Social Science Distribution (MGMT 2020) will fulfill this requirement)			3
Humanities Distribution			3
Fine Arts Distribution			3
Discipline Core Requirements:			**15 Credits**
Choose 15 credits from the following list:			
ACC	2010	Financial Accounting	3
ISYS	1050	Basic Computer Applications*	3
LEGL	3000	Business Law	3
MGMT	2020	Macroeconomics (fulfills Behavior/Social Science requirements)	3
MGMT	2200	Written Business Communication	3
MGMT	3000	Organizational Behavior	3
Electives:			**9 Credits**
Complete any 9 credits of courses numbered 1000 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 UVSC 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:
*Students will be required to complete the business computer proficiency exam with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher on each of the six modules.
**No more than three credits of cooperative work experience will be allowed in this degree.

BS IN BUSINESS MANAGEMENT 122 CREDITS

General Education Requirements: 36 Credits

- ENGL 1010 Introduction to Writing 3
- ENGL 2010 Intermediate Writing—Humanities/Social Science
- or ENGL 2020 Intermediate Writing—Science and Technology 3
- MATH 1050 College Algebra 4
- or An Advanced Placement (AP) Mathematics Test with a score of 3 or higher

Complete one of the following: 3

- HIST 1700 American Civilization
- HIST 2700 US History to 1877
- and HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:

- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness
- or PES 1097 Fitness for Life 2

Distribution Courses

- MGMT 2020 Macroeconomics (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: 49 Credits

Business Foundation Courses:

- ACC 2010 Financial Accounting 3
- ACC 2020 Managerial Accounting 3
- Business Computer Proficiency Exam**
- or ISYS 1050 Basic Computer Applications** 3
- MATH 1100 Introduction to Calculus 4
- MGMT 2010 Microeconomics 3
- MGMT 2200 Written Business Communication 3
- MGMT 2340 Business Statistical Applications 3
- MGMT 2390 Effective Business Presentations 3

Business Core Courses:

- ISYS 3120 Principles of Information Systems: A Managerial Approach 3
- LEGL 3000 Business Law 3
- MGMT 3010 Principles of Management 3
- MGMT 3100 Principles of Finance* 3
- MGMT 3450 Operations Management* 3
- MGMT 3600 Principles of Marketing 3
- MGMT 3890 Career Preparation 2
- MGMT 4800 Strategic Management* 3
- MGMT 495R Executive Lecture Series 1
- or MGMT 493R Entrepreneurship Lecture Series

Specialty Core Requirements: 27 Credits

Complete one of the following Emphases (see below):

- Entrepreneurship 27
- or Finance and Banking 27
- or General Business 27
- or Hospitality Management 28
- or International Business 27
- or Marketing 27

Discipline Elective Requirements: 10 Credits

- Complete 10 credits of General Education courses 10

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 School of Business courses. No grade lower than a "C-" in core and specialization courses.
3. Residency hours: Minimum of 30 credit hours of School of Business courses through course attendance at UVSC, 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.

*Courses with an asterisk (*) cannot be taken until student is matriculated.

**Students will be required to complete the business computer proficiency exam with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher in each of the six modules.

Emphasis in Entrepreneurship

Specialty Core Requirements: 27 Credits

- MGMT 3300 Survey of International Business 3
- MGMT 3150 Financial Management* 3
- MGMT 3430 Human Resource Management 3

BS IN BUSINESS MANAGEMENT (CON'T) 122 CREDITS

- MGMT 3650 Selling and Sales Management* 3
- MGMT 3670 Advertising and Promotion* 3
- MGMT 4200 Opportunity Identification in Entrepreneurship* 3
- MGMT 4300 Entrepreneurship Business Planning* 3
- MGMT 4400 New Venture Financing* 3
- MGMT 4450 Entrepreneurship Enterprise Formation 3

Emphasis in Finance and Banking

Specialty Core Requirements: 15 Credits

- MGMT 3300 Survey of International Business 3
- MGMT 3150 Financial Management 3
- MGMT 3400 Investment Management 3
- MGMT 4100 Management of Financial Institutions 3
- MGMT 4310 Managerial Economics 3

Speciality Elective Requirements: 12 Credits

Select 12 credits from the following list: 12

- MGMT 4150 Public Finance
- MGMT 4180 International Finance
- MGMT 4400 New Venture Financing
- Any Accounting Course Numbered 3010 or higher

Note:

Specialty Elective Requirements do not replace Discipline Core Elective Requirements

Emphasis in General Business

Specialty Requirements: 27 Credits

- MGMT 3300 Survey of International Business 3
- MGMT 3430 Human Resource Management 3
- Complete 21 credits of pre-approved upper-division courses. See advisor for list of courses. 21

Emphasis in Hospitality Management

Specialty Core Requirements: 28 Credits

- MGMT 3300 Survey of International Business 3
- MGMT 3200 Global Tourism 3
- HM 3020 Hospitality Managerial Accounting 4
- HM 3390 Hotel Operations II 3
- HM 3640 Food & Beverage Control 3
- HM 3710 Marketing Hospitality Services 3
- HM 4550 Hospitality Industry Management 3
- HM 482R Internship 6

Emphasis in International Business

Specialty Core Requirements: 12 Credits

- MGMT 3320 Cross Cultural Communication 3
- MGMT 3350 International Marketing 3
- MGMT 4180 International Finance* 3
- MGMT 4870 International Management* 3

Specialty Elective Requirements: 15 Credits

- Complete 15 pre-approved elective credits. See advisor for list of specific courses. 15

Emphasis in Marketing

Specialty Core Requirements: 27 Credits

- MGMT 3300 Survey of International Business 3
- MGMT 3350 International Marketing 3
- MGMT 4600 Marketing Research* 3
- MGMT 4650 Strategic Marketing* 3

Choose 15 credits from the following list: 15

- MGMT 3220 Retail Management*
- MGMT 3620 Consumer Behavior*
- MGMT 3630 Service Marketing
- MGMT 3650 Selling and Sales Management*
- MGMT 3660 Internet Marketing*
- MGMT 3670 Advertising and Promotion*
- MGMT 482R Internship (Limit of 6 credits)

BA/BS IN INTEGRATED STUDIES 123 CREDITS

The following Integrated Studies emphases are available (see the Integrated Studies section of this catalog for complete degree requirement listings):

- Business Management
- Leadership

MINOR IN BUSINESS MANAGEMENT 23 CREDITS

Matriculation Requirements:

1. Admitted to a bachelor degree program ar UVSC.

MINOR IN BUSINESS MANAGEMENT (CON'T) 23 CREDITS

Discipline Core Requirements: 20 Credits

Business Core Courses:

- ACC 3000 Financial, Managerial, and Cost Accounting 4
- ISYS 3120 Principles of Information Systems: A Managerial Approach 3
- LEGL 3000 Business Law 3
- MGMT 2200 Written Business Communication 3
- MGMT 2020 Macroeconomics (fulfills Social/Behavioral Science requirement) 3
- MGMT 3010 Principles of Management 3
- MGMT 495R Executive Lecture Series 1
- or MGMT 493R Entrepreneurship Lecture Series

Elective Requirements: 3 Credits

Choose one of the following:

- MGMT 3100 Principles of Finance* 3
- MGMT 3300 Survey of International Business 3
- MGMT 3430 Human Resource Management 3
- MGMT 3600 Principles of Marketing 3

Graduation Requirements:

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

Notes:

*Courses with an asterisk (*) cannot be taken until student is matriculated into a bachelor degree program.

Students are responsible for completing all prerequisite courses.

Not available to Business Management Majors.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

MGMT 1010 SS
Introduction to Business
3:3:0 Su, F, Sp

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.

MGMT 117R
Delta Epsilon Chi
1:1:1 F, Sp

Delta Epsilon Chi is a national student organization designed for all marketing/hospitality majors. Helps students develop professionally through opportunities to use and apply leadership, human relations, management, social, communicative, and organizational skills. Includes involvement with the business community. Provides opportunities for leadership positions, committee assignments, participation in school and community activities, and competition in state and national events. Requires payment of local, state, and national dues. May be taken a maximum of two times for credit. Offered on a credit/no credit basis.

MGMT 118R
Delta Epsilon Chi Leadership
1:1:1 F, Sp
For Delta Epsilon Chi officers. Includes leadership development, organization, and direction of the DEX program of work for UVSC Chapter. Course will be offered on a credit or no credit basis. May be taken a maximum of two times for credit.

MGMT 1200
Business English
3:3:0 On Sufficient Demand
• Prerequisite: ENGH 0990 or equivalent knowledge
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.

MGMT 1250
Principles of Leadership
3:3:0 F, Sp
Required course for integrated studies degree students with a pre-major in leadership. Overviews principles of leadership. Provides students with information on successful leadership styles. Includes lectures, videos, cases, group activities, and class discussion.

MGMT 126R
Leadership Academy—No Greater Heroes I
2:1:3
Assists in mastery of the key communication skills, beliefs, and physiology of truly successful people. Utilizes a behavioral model with specific strategies to produce extraordinary results on a consistent basis. Helps students take intelligent action toward producing outstanding results in life. Assists in learning to condition mind and body to consistently react with power and focus in situations. Provides life experiences to demonstrate resolve. Provides opportunities to make a difference in another person's life. May be repeated one time for credit for a maximum of 4 credits. (BS Business Management majors may count 2 credits toward degree elective credits.)

MGMT 127R
Leadership Academy—No Greater Heroes II
2:1:3
• Prerequisite: MGMT 126R
Emphasizes the rewards received by those who give extraordinary ways. Produce and use evaluation tools to assess one's journey toward predetermined outcomes. Learn to use data to increase productivity, monitor performance, and adjust needed changes required to achieve objectives and goals. Emphasizes the need for documentation so success can be duplicated consistently over and over. Includes field work presenting motivational activities in both junior and elementary schools. May be repeated one time for credit for a maximum of 4 credits. (BS Business Management majors may count 2 credits toward degree elective credits.)

MGMT 1600
Fundamentals of Marketing
3:3:0 On Sufficient Demand
Required for business management AAS degrees; elective credit for other students interested in an introductory marketing course. Deals with processes used in the promotion of goods from producer to consumer. Includes media advertising, trade shows, personal selling, display techniques and preparation of printed materials. Discusses innovations in technology, Internet marketing, developing WWW home pages, and using cable TV interactive selling. Includes lecture, guest speakers, video tapes, role playing, case analysis, oral presentations, and activities.

MGMT 181R
Phi Beta Lambda
1:1:0 F, Sp
Phi Beta Lambda is a national student organization designed for all business majors. Helps students develop professionally through opportunities to use and apply leadership, human relations, management, social, communicative, and organizational skills. Includes involvement with the business community. 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. Course will be graded on a credit/ no credit basis. Can be repeated as many times as desired for interest.

MGMT 182R
Phi Beta Lambda Leadership
1:1:0 F, Sp
For Phi Beta Lambda officers. Includes development, organization, and direction of the PBL program of work for UVSC Rho Lambda Chapter. Graded on a credit/no credit basis. May be repeated once for a maximum two credits.

MGMT 2100
Personality Instruments and Business
3:3:0 On Sufficient Demand
Examines the individual personality and identity as it relates to the workplace environment. Provides overview of Color Code, Creating a Climate for Growth, Myers-Briggs, True Colors, and other personality programs. Evaluates personality-induced stressors in the workplace. Provides tools for effective stress reduction through living a principled lifestyle. Identifies processes for internal congruency and ethical behavior. Emphasizes character building modules culminating in a service project.

MGMT 2110 (Cross-listed as COMM 2110) SS
Interpersonal Communication
3:3:0 F, Sp
Examines the role of communication interpersonal relationships. Includes the history of interpersonal communication research and theory and applications such as negotiation, conflict management, listening, and assertiveness.

MGMT 2200** GC
Written Business Communication
3:3:0 Su, F, Sp
• Prerequisite: ENGL 1010 with a grade of "C-" or higher and (ISYS 1050 or business computer proficiency or basic word processing skill)
Teaches written correspondence and business reports using direct and indirect approaches. Emphasizes basic language utilization. Includes application of communication principles to business writing situations. Requires completion of a formal research document.

MGMT 220A
Written Business Communication
1:1:0 On Sufficient Demand
• Prerequisite: ENGL 1010 with a grade of "C-" or higher and (ISYS 1050 or business computer proficiency or basic word processing skill)
Teaches business reports using direct and indirect approaches. Emphasizes basic language utilization. Includes application of communication principles to business writing situations. Requires completion of a formal research document.

MGMT 220B
Written Business Communication
2:2:0 On Sufficient Demand
• Prerequisite: ENGL 1010 with a grade of "C-" or higher and (ISYS 1050 or business computer proficiency or basic word processing skill)
Teaches written correspondence using direct and indirect approaches. Emphasizes basic language utilization. Includes application of communication principles to business writing situations. Does not satisfy English requirement for School of Business Majors.

MGMT 2250
Job Application and Advancement Skills
1:1:0 F
• Prerequisite: Basic word processing skill; MGMT 2200 preferred
Emphasizes the development of effective techniques for successfully locating, applying for, securing employment, and advancing in a career. Includes demonstration, role play, and application exercises. Should be taken near the end of the business major's educational program or concurrently with cooperative work experience.

MGMT 2390
Effective Business Presentations
3:3:0 F, Sp
• Prerequisite: One of the Following: ISYS 3270, ISYS 1050, ISYS 105E or business computer proficiency or Instructor Approval
• Corequisite: MGMT 2200
For students and others interested in developing effective business presentations skills. Teaches students to plan, develop, deliver, and evaluate business presentations using informative and persuasive formats in diverse settings using a variety of media. Provides additional presentation software training.

MGMT 258R
Current Topics in International Business
1-3:1-3:0 On Sufficient Demand
• Prerequisite: 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 259R
Current Topics in Marketing
1-3:1-3:0 On Sufficient Demand
• Prerequisite: 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.

MGMT 2700
Business and Service in Action
2:1:3 On Sufficient Demand
Explores previous business course content with hands-on experience. Provides leadership and service opportunities. Includes lecture, homework, and out-of-class lab time consisting of service-related experiential learning. Completers should have a greater understanding of the business major with practical service experience.

MGMT 281R
Cooperative Work Experience
2-8:0:10-40 Su, F, Sp
• Prerequisite: 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 college. 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.

MGMT 290R
Independent Study
1-3:1-3:0 On Sufficient Demand
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
1-3:1-3:0 On Sufficient Demand
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 294R
Current Issues in Utah Business
1:1:0 On Sufficient Demand
Focuses on current issues in Utah business. Covers a single issue in each weekly television broadcast; uses supporting internet materials to expose students to timely issues facing the Utah business community. May be repeated for a maximum of three credits toward graduation.

MGMT 295R
Executive Lecture Series
0.5:0.5:0 On Sufficient Demand
Consists of lectures presented by guest speakers on current business topics concerning the student, community, nation, business world, etc. May be required; see program listings for details. Can be taken as many times as desired for interest.

MGMT 3000
Organizational Behavior
3:3:0 F, Sp
• Prerequisite: ENGL 1010 or ENGL 1060 or ENGL 106A
Studies behavioral theories and concepts for creating effective organizations. Deals with knowledge of individual, group, and organizational processes and variables focusing on practical application of how people work. 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.

MGMT 3010
Principles of Management
3:3:0 Su, F, Sp
• Prerequisite: MGMT 2200
Introduces students to principles of the management process and related theoretical concepts of social behavior in organizations. Introduces students to the impact of globalization on the management process. Requires students to complete a career exploration and planning process. Develops student's knowledge of team dynamics and student's individual team skills.

MGMT 3170
Entrepreneurship
3:3:0 F, Sp
• Prerequisite: ENGL 1010
Cannot be used as an upper-division elective for the Business management bachelor of science degree. Studies a comprehensive business plan including business strategy, location selection, and building design. Covers market potential, capital requirements, business organization, merchandise buying, and price and service policies. Includes communication policies, accounting and finance procedures, and legal environment. Completers should be able to develop their own business plan.

MGMT 3180
Business Formation
3:3:0 F, Sp
• Prerequisite: ENGL 1010 or ENGL 1060; MGMT 3170 highly recommended
Provides a real-world experience of taking a business idea to the market with students working in teams under the direction of successful entrepreneurs. Integrates business theory with the challenges of working with others, competing with existing firms, and facing economic issues associated with starting a business.

MGMT 3200 (Cross-listed as HM 3200)
Global Tourism
3:3:0 F
• Prerequisite: MGMT 2200 or ENGL 2010 or ENGL 2020
Studies the history and future of tourism, the impacts (environment, culture, economy) of tourism, and tourist behavior. Includes lectures, case studies, field trips, and guest speakers. Completers should be sophisticated travelers and understand the nature of the world's largest industry and its impacts on society and national economics.

MGMT 3210 (Cross-listed as HM 3210)
Convention and Events Management
3:3:0
• Prerequisite: ENGL 2010 or ENGL 2020
Analyzes the meeting, convention, and events industry. Covers the various disciplines of planning including site selection, organizing, budgeting, catering, entertainment, and promotion. Introduces career opportunities through guest speakers who are industry professionals.

MGMT 3220
Retail Management
3:3:0 F
• Prerequisite: MGMT 3600
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.

MGMT 3300
Survey of International Business
3:3:0 Su, F, Sp
• Prerequisite: (ENGL 2010 or ENGL 2020 or MGMT 2200) and MGMT 2010
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.

MGMT 3320 (Cross-listed as COMM 3320)
Cross-Cultural Communications for International Business
3:3:0 F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
Required for international business majors and as an elective for all business majors. 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 change, and management functions.

MGMT 3350
International Marketing
3:3:0 F
• Prerequisite: MGMT 3600 and MGMT 3300
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.

MGMT 3390
Business and Professional Presentations
3:3:0 On Sufficient Demand
• Prerequisite: MGMT 2200 and complete one of the following: ISYS 3270, ISYS 1050, ISYS 105E, or business computer proficiency or Instructor Approval
For those interested in developing business and professional presentation skills. Emphasizes critical thinking as students plan, develop, deliver, and evaluate presentations using informative and persuasive formats in diverse settings using a variety of media. Incorporates aspects of multimedia. Successful completers should make business presentations professionally and confidently.

MGMT 339A
Business and Professional Presentations
1:1:0 On Sufficient Demand
• Prerequisite: MGMT 2200 and MGMT 2390 and one of the following: ISYS 3270, ISYS 1050, ISYS 105E, or business computer proficiency or Instructor Approval.
For students who have completed MGMT 2390 and need the additional theory, skills, and presentation practice required for upper-division credit. Emphasizes critical thinking and multimedia as students plan, develop, deliver, and evaluate presentations one-on-one and in an auditorium or large-facility setting. Emphasizes interaction with audience members.

MGMT 3430
Human Resource Management
3:3:0 Su, F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
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.

MGMT 3440
Managing Organizations
3:3:0 On Sufficient Demand
• Prerequisite: MGMT 3000
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.

MGMT 3500
Leadership Process
3:3:0 F, Sp
• Prerequisite: MGMT 1250
Required course for Integrated Studies Degree students with a pre-major in Leadership. Examines leadership theory by practice and application. Includes cases and group activities.

MGMT 3530 (Cross-listed as LEGL 3530)
Employment and Labor Law
3:3:0 F
• Prerequisite: ENGL 2010 or ENGL 2020
Covers employment and labor law, cases, and policy. Includes employment discrimination along with labor relations statues 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.

MGMT 3550
Human Resource Development†
3:3:0 F
• Prerequisite: ENGL 1010
Studies the process of ensuring skills, knowledge, abilities, and performance of the workforce to 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.

MGMT 3600
Principles of Marketing†
3:3:0 Su, F, Sp
• Prerequisite: ENGL 1010
Required for most School of Business Bachelor of Science Degree students and is elective credit for other majors. Studies consumers, markets, and environments from the perspective of the marketing manager. Covers consumer behavior, marketing research, product management, and channels of distribution. Explores pricing, advertising, and personal selling. Includes case analysis, lectures, class discussions, videos, oral presentations, written assignments, and guest speakers.

MGMT 3620
Consumer Behavior
3:3:0 F
• Prerequisite: MGMT 3600, MGMT 2340, and Matriculation into the Business Management Bachelor Degree Program
For bachelor degree business management majors; elective credit for other School of Business majors. 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.

MGMT 3630
Services Marketing
3:3:0 Sp
• Prerequisite: MGMT 3600
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. Completers should develop 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.

MGMT 3650
Selling and Sales Management
3:3:0 F, Sp
• Prerequisite: Matriculation into the Business Management Bachelor Degree Program
For the bachelor degree business management majors; elective credit for other School of Business majors. 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.

MGMT 3660
Internet Marketing
3:3:0 F, Sp
• Prerequisite: MGMT 3600
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.

MGMT 3670
Advertising and Promotion
3:3:0 Sp
• Prerequisite: MGMT 3600 and Matriculation into the Business Management Bachelor Degree Program
For Bachelor Degree Business Management majors; elective credit for other School of Business majors. 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.

MGMT 3730
Opportunities in Direct Sales
3:3:0 On Sufficient Demand
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
3:3:0 On Sufficient Demand
• Prerequisite: MGMT 3730
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 3890
Career Preparation
2:2:0 Su, F, Sp
• Prerequisite: MGMT 2200
Emphasizes the development of effective techniques for successfully locating, applying for, securing employment, and advancing in a career. Provides opportunities to do a self-analysis, research industry and job opportunities, and internalize appropriate etiquette in a variety of business and social settings. Includes demonstration, role play, and application exercises.

MGMT 4000
Compensation and Benefits†
3:3:0 Sp
• Prerequisite: MGMT 3430; MGMT 3530 recommended
Studies the creation and administration of compensation systems and benefit packages for organizations. Draws heavily on material from MGMT 3430 and research on compensation and benefits systems currently in use in organizations. Covers benefits bidding and contracting based on employer limitations and employee needs. Involves both verbal and quantitative skills.

MGMT 4200
Opportunity Identification in Entrepreneurship
3:3:0 F
• Prerequisite: Matriculation into the Business Management Bachelor Degree
An advanced entrepreneurship course; deals with successful management and/or ownership of a business. Discusses a firm's legal structure, business valuation, loans, and venture capital. Analyzes franchising, self-evaluation techniques, daily cash controls, and the international arena. Evaluates family business issues and government regulations.

MGMT 4210
Entrepreneurship Personal Development
3:3:0 Sp
• Corequisite: MGMT 4200
Deals with the personal and interpersonal development of entrepreneurs and other business professionals. Addresses issues and provides specific guidance in such areas as business and personal financial strategies, business and family interpersonal relationships, networking and human resource management strategies, and professional business and self image.

MGMT 4220
Management Communication
3:3:0 Sp
• Prerequisite: MGMT 2200 and Matriculation into the Bachelor Degree Program
Studies elements of communication in management. Concentrates on written and oral communication in business settings and includes communicating electronically, managing conflict, and dealing with change.

MGMT 4290
Individual Action and Corporate Social Responsibility
3:3:1
• Prerequisite: MGMT 3010, Matriculation into the BS Business Management Program, and senior status
Explores the individual decision-making and leadership that underlies, drives, and shapes corporate social responsibility (CSR). Uses cases grouped around the main three areas of leadership, decision-making, and CSR. Uses primarily film to explore these cases, along with documentaries, trial summaries, congressional and government reports, and newspaper and magazine articles. Covers the basic theory and models of corporate social responsibility, decision making, and leadership; and explores the relationship and dynamics between individual decision making and leadership and corporate or collective social responsibility. Utilizes academic and practitioner articles that explore various aspects of leadership, decision making, and corporate social responsibility. Includes case analysis and reflection; an autobiographical exploration of leadership, decision making, and corporate social responsibility models; and a team project.

MGMT 4300
Entrepreneurship Business Planning
3:3:0 Sp
• Prerequisite: MGMT 4200 and Matriculation into the Business Management Bachelor Degree Program
Covers marketing research, accounts receivable management, insurance analysis, and business taxation. Deals with local issues, regulations, statistics, patents, and estate planning. Students write a comprehensive business plan and should be able to competently manage a small business or start their own with a minimum risk of failure.

MGMT 4400
New Venture Financing
3:3:0 On Sufficient Demand
• Prerequisite: MGMT 3150 and Matriculation into the Bachelor Degree Program
Covers advanced concepts and skills in entrepreneurship/small business management. Emphasizes how new and emerging companies are financed. Applies functional tools to case situations.

MGMT 4450
Entrepreneurship Enterprise Formation
3:3:0 F
• Prerequisite: MGMT 4200 and MGMT 4300
Applies learning from the entrepreneurship program to the start-up of a working business with students working in teams or individually under the direction of successful entrepreneurs. Integrates business theory with the reality of securing resources, developing product/service and taking it to market.

MGMT 458R
Advanced Topics in International Business
1-3:1-3:0 On Sufficient Demand
• Prerequisite: Department Chair Approval
Provides exposure to emerging topics of current interest in international business. Topics vary each semester. May apply a maximum of six hours toward graduation.

MGMT 459R
Advanced Topics in Marketing
1-3:1-3:0 On Sufficient Demand
• Prerequisite: Department Chair Approval
Provides exposure to emerging topics of current interest in marketing. Topics vary each semester. May apply a maximum of six hours toward graduation.

MGMT 4600
Marketing Research
3:3:0 F
Prerequisite: MGMT 3600, MGMT 2340
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.

MGMT 4610
Workforce Planning and Staffing
3:3:0 Sp
• Prerequisite: MGMT 3430 and Matriculation into the Business Management Bachelor Degree Program; MGMT 3530 recommended
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.

MGMT 4650
Strategic Marketing
3:3:0 Sp
• Prerequisite: MGMT 4600 and Matriculation into the Business Management Bachelor Degree Program
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.

MGMT 481R
Cooperative Work Experience
2-8:0:10-40 Su, F, Sp
• Prerequisite: Approval from School of Business Career and Corporate Manager
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 six credit hours of cooperative work experience will apply toward graduation in any Business Management Specialization.

MGMT 482R
Internship
2-8:0:10-40 Su, F, Sp
• Prerequisite: Approval from School of Business Career and Corporate Manager
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 a meaningful internship experience. No more than six credit hours of internship work will apply toward graduation in any Business Management Specialization.

MGMT 4870
International Management
3:3:0 Sp
• Prerequisite: Matriculation into the Business Management Bachelor Degree Program, (MGMT 3000 or MGMT 3010), and MGMT 3300, MGMT 3600, MGMT 3100
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
1-3:1-3:0 On Sufficient Demand
• Prerequisite: Department Chair Approval
For bachelor 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 six hours toward graduation.

MGMT 492R
Human Resource Seminar
1:1:0 On Sufficient Demand
• Prerequisite: Instructor approval
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 two credits toward graduation.

MGMT 493R
Entrepreneurship Lecture Series
1:1:0 F, Sp
Presents lectures by guest speakers on current entrepreneurship issues and topics. Speakers and topics vary each semester. May apply a maximum of three credits toward graduation.

MGMT 494R
Seminar†
0.5-3:0.5-3:0 On Sufficient Demand
Provides short courses, workshops, and special programs in business management, leadership, or current business topics. Repeatable for up to three credits toward graduation.

MGMT 495R
Executive Lecture Series
1:1:0 F, Sp
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 three credits toward graduation.

MGMT 4980
Business Research Seminar
3:3:0.0 On Sufficient Demand
• Prerequisite: Instructor Approval
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.

CABINETRY AND ARCHITECTURAL WOODWORK

Department Chair: Steve Fordham

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Advisory Committee: Eric Fetzer, Fetzer's, Inc.; Jon Fondell, Fondell Woodworks; Ross Ford, Highland Woodworks; Lon Purcell, Cottonwood Mill & Cabinet; Duane Lundel, American Stores Properties Mill; Russell Ross, Riverhouse Design.

School of Computing, Engineering and Technology

Dean: Thomas McFarland
Office: CS 720b
Telephone: 801-863-8995

CAREER OPPORTUNITIES

The highly skilled craftsperson in the cabinetmaking field may find work in factory production, set-up, milling, assembling, and installing highly-customized cabinetry in residences, banks, department stores, and restaurants. Other jobs may be found in furniture work, and specialized facets of the industry. Self-employment often follows short-term trade experience.

PROGRAMS

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 in Technology Management Degree.

Reminder: an overall grade point average of 2.0 (C) or above is required for graduation.

CERTIFICATE IN CABINETRY AND ARCHITECTURAL WOODWORK — 30 CREDITS

Discipline Core Requirements: 30 Credits

- ACC 1150 Fundamentals of Business Math 3
- CAW 1130 Residential Cabinetry 4

CERTIFICATE IN CABINETRY AND ARCHITECTURAL WOODWORK (CON'T) — 30 CREDITS

- CAW 1140 Millworking and Safety Shop I 5
- CAW 1150 Design, Drafting and Billing 3
- CAW 1170 Finish Technology 2
- CAW 1210 Cabinetmaking Materials and Hardware 1
- CAW 1240 Millworking Shop II 5
- CAW 2310 Cabinetry Math 2
- CAW 299R VICA (1 credit course, must be repeated) 2
- DT 1040 Computer Aided Drafting - AutoCAD 3

Graduation Requirements:

1. Overall grade point average of 2.0 (C) or above.

DIPLOMA IN CABINETRY AND ARCHITECTURAL WOODWORK — 50 CREDITS

Discipline Core Requirements: 50 Credits

- CAW 1130 Residential Cabinetry 4
- CAW 1140 Millworking and Safety Shop I 5
- CAW 1150 Design, Drafting and Billing 3
- CAW 1170 Finish Technology 2
- CAW 1210 Cabinetmaking Materials and Hardware 1
- CAW 1240 Millworking Shop II 5
- CAW 1250 Drafting and Computer Applications for Cabinetmakers 3
- CAW 2300 Counter-top Technology 3
- CAW 2310 Cabinetry Math 2
- CAW 2320 Custom Cabinetry 2
- CAW 2340 Millworking Shop III 5
- CAW 2430 Commercial Cabinetry Technology 4
- CAW 2440 Millworking Shop IV 5
- DT 1040 Computer Aided Drafting - AutoCAD 3
- COMM 2110 Interpersonal Communication 3

The following course is recommended, but optional:

- CAW 299R VICA 1

Graduation Requirements:

1. Completion of a minimum of 50 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 UVSC.

AAS IN CABINETRY AND ARCHITECTURAL WOODWORK — 67 CREDITS

General Education Requirements: 16 Credits

- ENGL 1010 Introduction to Writing 3
- or ENGL 1060 Career Writing for Technology
- ACC 1150 Fundamentals of Business Math 3
- Any approved Humanities, Fine Arts, or Foreign Language Distribution Course 3
- COMM 2110 Interpersonal Communication 3
- Any approved Biology or Physical Science Distribution Course 3
- Any approved Physical Education, Health, Safety or Environment Course 1

Discipline Core Requirements: 51 Credits

- CAW 1130 Residential Cabinetry 4
- CAW 1140 Millworking and Safety Shop I 5
- CAW 1150 Design, Drafting and Billing 3
- CAW 1170 Finish Technology 2
- CAW 1210 Cabinetmaking Materials and Hardware 1
- CAW 1240 Millworking Shop II 5
- CAW 1250 Drafting and Computer Applications for Cabinetmakers 3
- CAW 2300 Counter-top Technology 3
- CAW 2310 Cabinetry Math 2
- CAW 2320 Custom Cabinetry 2
- CAW 2340 Millworking Shop III 5
- CAW 2430 Commercial Cabinetry Technology 4
- CAW 2440 Millworking Shop IV 5
- CAW 299R VICA (1 credit, repeat 4 times) 4
- DT 1040 Computer Aided Drafting - AutoCAD 3

Graduation Requirements:

1. Completion of a minimum of 67 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 UVSC.

AAS IN CABINETRY AND ARCHITECTURAL WOODWORK (CON'T) — 67 CREDITS

4. Completion of GE and specified departmental requirements.

AS PRE MAJOR IN CABINETRY AND ARCHITECTURAL WOODWORK — 63 CREDITS

General Education Requirements: 35 Credits

- Complete General Education requirements as detailed in the General Education section of this catalog.

Discipline Core Requirements: 16 Credits

- Choose from CAW courses1000 level or higher 16

Elective Requirements: 12 Credits

- Choose from courses 1000 level or higher 12

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 UVSC.
4. Completion of GE and specified departmental requirements.

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Cabinetry and Architectural Woodwork

Specialty Core Requirements: 45 Credits

Choose 45 credits from the following: 45

- CAW 1130 Residential Cabinetry
- CAW 1140 Millworking and Safety Shop I
- CAW 1150 Design, Drafting and Billing
- CAW 1170 Finish Technology
- CAW 1210 Cabinetmaking Materials
- CAW 1240 Millworking Shop II
- CAW 1250 Drafting and Computer Applications for Cabinetmakers
- CAW 2300 Counter-top Technology
- CAW 2310 Cabinetry Math
- CAW 2320 Custom Cabinetry
- CAW 2340 Millworking Shop III
- CAW 2430 Commercial Cabinetry Technology
- CAW 2440 Millworking Shop IV

NOTES:
No upper division Technology Management (i.e. Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

Due to the technical nature of the material in the CAW courses, additional reading and math instruction may be required. More information will be given during advisement.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

CAW 100R
Survey of Working with Wood
2:0:5 F, Sp
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.

CAW 1100
Artistic Wood Design
2:1:4 On Sufficient Demand
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 woodwork.

CAW 1130
Residential Cabinetry
4:1:9 Sp
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.

CAW 1140
Millworking and Safety Shop I
5:0:15 F
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.

CAW 114A
Millworking and Safety Shop I
2.5:0:7.5 F
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.

CAW 114B
Millworking and Safety Shop I
2.5:0:7.5 Sp
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.

CAW 1150
Design Drafting and Billing
3:3:0 F
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
2:2:1 F
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.

CAW 1210
Cabinetmaking Materials and Hardware
1:1:0 F
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
5:0:15 Sp
A second semester shop course for CAW students and interested community members. Teaches the design and construction of more difficult millworking projects. Studies advanced jointers, finishing techniques, and fastening devices. Stresses safety.

CAW 124B
Millworking Shop II
2:0:6 Sp
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 jointers, finishing techniques, and fastening devices. Stresses safety.

CAW 1250
Drafting and Computer Applications for Cabinetmakers
3:3:0 Sp
Emphasizes design, purpose, function, appearance, materials, and construction for quality cabinetmaking. Covers efficient timesaving methods. Teaches material cost estimating. Uses computer software Cabinet Vision.

CAW 2300
Counter-top Technology
3:3:0 Sp
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.

CAW 2310
Cabinetry Math
2:2:0 F
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.

CAW 2320
Custom Cabinetry
2:2:0 Sp
Covers theory of custom designing, shaper knives, making custom set-ups, and working with veneers and laminates. Examines solutions to commercial sanding and moisture control problems. Covers stair building techniques and pin-router operations.

CAW 2340
Millworking Shop III
5:0:15 F
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 woodwork trainee.

CAW 234A
Millworking Shop III
2.5:0:7.5 F
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 woodwork trainee.

CAW 234B
Millworking Shop III
2.5:0:7.5 Sp
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 woodwork trainee.

CAW 2430
Commercial Cabinetry Technology
4:1:9 F
Studies zoning, shop flow, and production set. Includes field trip to commercial cabinet shop. Teaches set up of machines used in the industry.

CAW 2440
Millworking Shop IV
5:0:15 Sp
A culminating architectural woodworking shop. Students build projects demonstrating advanced skills learned in previous shop courses.

CAW 244B
Millworking Shop IV
2:0:6 Sp
Culminates previous architectural woodworking courses. Covers half of CAW 2440. Requires advanced skills, learned previously, to complete projects.

CAW 281R
Cooperative Work Experience
1-8:0:5-40 F, Sp
• Corequisite: 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 objectives that improve present work performance. May be repeated twice for credit.

CAW 285R
Cooperative Correlated Class
1:1:0 F, Sp
• Corequisite: 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
VICA
1:1:0 F, Sp
For CAW majors. Supports and facilitates the goals and objectives of Vocational Industrial Clubs for 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. May be repeated up to four times for credit.

CHEMISTRY

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CAREER OPPORTUNITIES

Graduates with a bachelor degree in chemistry will be prepared to work in industry or pursue a graduate degree in chemistry. Current employment opportunities for graduates in Chemistry programs are good.

Graduates with a bachelor degree in Chemistry and Physics Education will be prepared to teach chemistry and physics in junior and senior high. Current employment opportunities for graduates from Chemistry and Physics Education programs are good.

PROGRAMS

Students may receive:

- Bachelor of Science in Chemistry
- Bachelor of Science in Chemistry and Physics Education

ADMISSION REQUIREMENTS

A student who wants to pursue a chemistry major should meet with the department chair or chemistry advisor for advisement.

BS IN CHEMISTRY — 124 CREDITS

General Education Requirements:			41 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2020	Intermediate Writing—Science/Technology	3
• MATH	1210	Calculus I	5
Complete one of the following:			3
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• HIST	1700	American Civilization	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health and Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses			
• Biology			3
• CHEM	1210	Principles of Chemistry I	4
• CHEM	1215	Principles of Chemistry I Laboratory	1
• CHEM	1220	Principles of Chemistry II	4
• CHEM	1225	Principles of Chemistry II Laboratory	1
• Humanities Distribution			3
• Fine Arts Distribution			3
• Social/Behavioral Science			3
Discipline Core Requirements:			74 Credits
• 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	3000	Analytical Chemistry	4
• CHEM	3060	Physical Chemistry I	4
• CHEM	3070	Physical Chemistry II	4
• CHEM	3100	Inorganic Chemistry	4
• CHEM	3105	Inorganic Chemistry Laboratory	1
• CHEM	3600	Biological Chemistry	3
• CHEM	3605	Biochemistry Laboratory	1
• CHEM	3075	Physical Chemistry Laboratory	2
• CHEM	4000	Instrumental Analysis	2
• MATH	1220	Calculus II	5
• MATH	2210	Calculus III	3
• MATH	2270	Linear Algebra	3
• MATH	2280	Ordinary Differential Equations	3
• MATH	3400	Partial Differential Equations	3
• PHYS	2210	Physics for Scientists and Engineers I	4
• PHYS	2220	Physics for Scientists and Engineers II	4
• PHYS	2215	Physics for Scientists and Engineers I Lab	1
• PHYS	2225	Physics for Scientists and Engineers II Lab	1
Complete 12 credits of upper-level CHEM courses not previously taken. With departmental approval, up to 6 credits of upper-level courses in BIOL, GEO, MATH, or PHYS may be substituted.			12
Elective Requirements:			9 Credits
• Any course 1000 or higher			9

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 2.0 (C) or above with a minimum of 2.25 in Major.

BS IN CHEMISTRY (CON'T) — 124 CREDITS

3. Residency hours—minimum of 30 credit hours through course attendance at UVSC, 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 UVSC. 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.

BS IN CHEMISTRY AND PHYSICS EDUCATION — 120 CREDITS

Matriculation Requirements:

1. Students are admitted directly to the Baccalaureate degree program in Chemistry and 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.
3. Students must select between chemistry and physics emphases upon matriculation.

General Education Requirements:			41 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2020	Intermediate Writing—Science/Technology	3
• MATH	1210	Calculus I	5
Complete one of the following:			3
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• HIST	1700	American Civilization	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health and Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses			
• Biology			3
• CHEM	1210	Principles of Chemistry I	4
• CHEM	1215	Principles of Chemistry I Laboratory	1
• CHEM	1220	Principles of Chemistry II	4
• CHEM	1225	Principles of Chemistry II Laboratory	1
• Humanities Distribution			3
• Fine Arts Distribution			3
• Social/Behavioral Science			3
Discipline Core Requirements:			83 Credits
• 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	4
• CHEM	4200	Teaching Methods in Science	3
• HIST	4320	History of Scientific Thought	3
• MATH	1220	Calculus II	5
• MATH	2210	Calculus III	3
• PHYS	2210	Physics for Scientists and Engineers I	4
• PHYS	2215	Physics for Scientists and Engineers I Lab	1
• PHYS	2220	Physics for Scientists and Engineers II	4
• PHYS	2225	Physics for Scientists and Engineers II Lab	1
• PHYS	3010	Physics Experiments for Secondary Education	1
• PHYS	3100	Modern Physics	3
Education Courses			
• EDSC	2540	Development of the Adolescent Student	2
• EDSC	3000	Educational Psychology	3
• EDSC	3050	Foundations of American Education	2
• EDSC	3250	Instructional Media	2
• EDSC	4200	Classroom Management I	1
• EDSC	4250	Classroom Management II	1
• EDSC	4440	Content Area Reading and Writing	3
• EDSC	4450	Multicultural Instruction/ESL	2
• EDSC	4550	Secondary Curriculum, Instruction and Assessment	4
• EDSC	4850	Student Teaching, Secondary	4
• EDSP	3400	Exceptional Students	2
Complete one of the following sets:			11
CHEMISTRY:			
• CHEM	3060	Physical Chemistry I	
• CHEM	3100	Inorganic Chemistry	

BS IN CHEMISTRY AND PHYSICS EDUCATION (CON'T) 120 CREDITS

- PHYS 3050 Astrophysics

PHYSICS (see Physics advisor):

- PHYS 3210 Introduction to Experimental Physics I
- PHYS 490R Seminar*
- Complete 9 credits from the following:
  - PHYS 3050 Astrophysics
  - PHYS 3230 Principles of Electronics for the Physical Sciences
  - PHYS 3300 Introduction to Classical Field Theory
  - PHYS 3400 Classical Mechanics
  - PHYS 3500 Thermodynamics
  - PHYS 3800 Energy Use on Earth
  - PHYS 4700 Acoustics

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 UVSC, 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 UVSC. A minimum of 24 chemistry and physics credits must be upper-division.
6. Complete all chemistry and physics courses with a minimum grade of "C-" or better.

Note:
* Must be repeated two times.

MINOR IN CHEMISTRY 27 CREDITS

Matriculation Requirements:

1. Admitted to a bachelor degree program at UVSC.

Discipline Core Requirements:			24 Credits
• CHEM	1210	Principles of Chemistry I	4
• CHEM	1220	Principles of Chemistry II	4
• CHEM	1215	Principles of Chemistry I Laboratory	1
• CHEM	1225	Principles of Chemistry II Laboratory	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	4
Elective Requirements:			3 Credits
• Any upper division chemistry class numbered above 3000 with a minimum of 3 credit hours			3

Graduation Requirements:

1. Complete all courses with a minimum grade of "C-" or better.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

CHEM 1010 PP
Introduction to Chemistry
3:3:0 Su, F, Sp
• Prerequisite: MAT 1010 or equivalent
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.

CHEM 1110 PP
Elementary Chemistry for the Health Sciences
4:4:0 Su, F, Sp
• Prerequisite: MAT 1010 or equivalent
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
1:0:2 Su, F, Sp
• Corequisite: CHEM 1010 or CHEM 1110
Introduces inorganic laboratory experiments including density, precipitation, determination of empirical formulas, gas laws and acid-base reactions.

CHEM 1120 PP
Elementary Organic Bio-Chemistry
4:4:0 F, Sp
• Prerequisite: CHEM 1110
An introductory organic and biochemistry class 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). Students who need or desire laboratory work should enroll in CHEM 1125 also.

CHEM 1125
Elementary Organic Bio-Chemistry Laboratory
1:0:3 F, Sp
• Prerequisite: CHEM 1110 and CHEM 1115
• Corequisite: 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.

CHEM 1210 PP
Principles of Chemistry I
4:4:0 Su, F, Sp
• Prerequisite: MATH 1050 or equivalent, also it is highly recommended to have prior chemistry experience in high school or in CHEM 1010 at UVSC
• Corequisite: 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
1:0:3 Su, F, Sp
• Corequisite: 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.

CHEM 1220 PP
Principles of Chemistry II
4:4:0 Su, F, Sp
• Prerequisite: CHEM 1210
• Corequisite: 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
1:0:3 Su, F, Sp
• Prerequisite: CHEM 1215
• Corequisite: CHEM 1220
Primarily for students in the physical and biological sciences and engineering. Continuation of CHEM 1215. Experiments follow topics in CHEM 1220.

CHEM 2310 GP
Organic Chemistry I
4:4:0 F, Sp
• Prerequisite: CHEM 1210 and CHEM 1220
The first in a series of two organic chemistry classes for students majoring in science and for those interested in careers in medicine, dentistry, veterinary science, and pharmacy, who must complete two semesters of organic chemistry. Teaches bonding and structures of organic molecules. Explores the relationship between structure and reactivity of organic functional groups. Introduces the concepts of nomenclature, stereochemistry, and reaction mechanism.

CHEM 2315
Organic Chemistry I Laboratory
1:0:4 F, Sp
• Corequisite: CHEM 2310
The first 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. Introduces safety in organic chemistry lab and chemical waste disposal. Teaches basic separatory, purification, and analytical techniques in organic chemistry such as crystallization, melting points, distillation and chromatography. Introduces organic synthesis using simple organic reactions. Introduces natural product isolation.

CHEM 2320 GP
Organic Chemistry II
4:4:0 F, Sp
• Prerequisite: CHEM 2310
The second of a series of two organic chemistry classes for students majoring in science and for those interested in careers in medicine, dentistry, veterinary science, and pharmacy, who must complete two semesters of organic chemistry. 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 2325
Organic Chemistry II Laboratory
1:0:4 F, Sp
• Prerequisite: CHEM 2315
• Corequisite: CHEM 2320
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.

CHEM 3000
Analytical Chemistry
4:2:6 F
• Prerequisite: CHEM 1225
For Chemistry majors and others interested in the basic principles of chemical measurement. Studies principles of quantitative analysis, stoichiometry, equilibrium theory, volumetric and gravimetric analysis. Includes introduction to instrumental methods and error analysis. Includes lectures and laboratory exercises.

CHEM 3020
Environmental Chemistry
3:3:0 Sp
• Prerequisite: CHEM 1225
• Corequisite: CHEM 3025
Studies the chemistry of soil, ground water, hazardous waste, and the atmosphere. Explores current environmental concerns and issues.

CHEM 3025
Environmental Chemistry Laboratory
1:0:3 Sp
• Prerequisite: CHEM 1225
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
4:4:0 F
• Prerequisite: PHYS 2220, MATH 2210
Introduces laws of thermodynamics and chemical thermodynamics. Covers changes of state and equilibrium. Introduces quantum mechanics.

CHEM 3070
Physical Chemistry II
4:4:0 Sp
• Prerequisite: CHEM 3060
Continuation of Chemistry 3060. Covers quantum mechanics, spectroscopy, kinetics, and statistical thermodynamics.

CHEM 3075
Physical Chemistry Laboratory
2:0:6 Sp
• Prerequisite: CHEM 3070
• Corequisite: CHEM 4000
Experiments in selected areas of physical chemistry. Emphasizes quantitative techniques of analysis.

CHEM 3100
Inorganic Chemistry
4:4:0 Sp
• Prerequisite: CHEM 3000 recommended (may be taken as a corequisite)
Reviews major trends across the periodic table. Surveys basic structure, bonding, and oxidation states of the elements. Introduces inorganic stereochemistry including coordination compounds.

CHEM 3105
Inorganic Chemistry Laboratory
1:0:4 Sp
• Prerequisite: CHEM 3000
• Corequisite: CHEM 3100
Laboratory to follow or be taken concurrently with CHEM 3100. Experiments follow topics in CHEM 3100.

CHEM 3600 (Cross-listed as BIOL 3600)
Biological Chemistry
3:3:0 F, Sp
• Prerequisite: CHEM 2320
Introduces principles of the chemical processes that define living organisms. Covers structure and function of proteins, carbohydrates, lipids and nucleic acids. Explores metabolic pathways, biosynthesis, enzymatics, thermodynamics, membrane dynamics and related processes within a living cell. Emphasizes molecular mechanisms of reactions and their outcome.

CHEM 3605 (Cross-listed as BIOL 3605)
Biochemistry Laboratory
1:0:4 Sp
• Corequisite: CHEM 3600 or 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.

CHEM 3800 (Cross-listed as ENVT 3800, PHYS 3800)
Energy Use on Earth
3:3:0 F, Sp
• Prerequisite: (PHYS 1010 or PHSC 1000 or CHEM 1010 or GEO 1010 or GEO 2040 or METO 1010) and MATH 1050
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. 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
2:2:0 Sp
• Prerequisite: CHEM 3000, CHEM 3070
• Corequisite: CHEM 3710
Covers modern instrumental methods and basic principles of instrumentation. Includes spectroscopic and chromatographic analysis.

CHEM 4200 (Cross-listed as BIOL 4200, GEO 4200)
Teaching Methods in Science
3:3:0 F, Sp
• Prerequisite: Acceptance into secondary education program; senior-level standing
Examines objectives, 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. Explores special needs of the learners and characteristics specific to the science discipline.

CHEM 425R
Chemistry for Teachers
1-5:1-5:0-10 On Sufficient Demand
• Prerequisite: Departmental Approval
For licensed teachers or teachers seeking to recertify, an update course in chemistry and/or basic chemistry courses for the 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. 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.

CHEM 491R
Advanced Topics in Inorganic Chemistry
3:3:0 On Sufficient Demand
• Prerequisite: CHEM 1220 and instructor's permission. CHEM 3100 or CHEM 3600 or BIOL 3600 recommended
Examines advanced and current topics of inorganic chemistry including bioinorganic chemistry, symmetry and molecular orbital theory, and the descriptive chemistry of main-group com-

pounds. Varies from semester to semester. Offered on demand. May be repeated for a maximum of nine credits.

CHEM 495R
Advanced Topics in Organic Chemistry
3:3:0 On Sufficient Demand
• Prerequisite: CHEM 2310, CHEM 2320, Instructor approval
For students majoring in Chemistry. Varies from semester to semester. May be repeated for a maximum of nine credits. Topics include organic synthesis, reaction mechanisms, and identification of organic compounds.

CHEM 499R
Independent Study and Research
1-4:0:3-12 Su, F, Sp
• Prerequisite: Instructor approval
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 four credits.

COLLISION REPAIR TECHNOLOGY

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Faculty:
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Advisory Committee: Lee Bellows, Christensen Inc.; Steve Whitlock, Whitlock Auto Body; Dave Adams, David Adams Classic Auto Repair; Dale Peterson, Dale Peterson Body Shop; Clay Atkinson, State Farm Insurance; Pat Griffiths, PPG Training Center.

School of Computing, Engineering and Technology

Dean: Thomas McFarland
Office: CS 720b
Telephone: 801-863-8995

CAREER OPPORTUNITIES

The collision repair industry offers a wide variety of career paths. The industry offers positions in auto body repair, PBE (paint, body, and equipment) sales and training, manufacturer representation, insurance businesses, jobber sales, and instructor training. Graduates may choose a career emphasis in: refinishing, surface preparation, estimating, management, quality control, production, structural repair, damage analysis, glass installation, panel fabrication, customization, nonstructural repair, sales, and instruction.

PROGRAMS

Four options are available: a 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 further definitions.

Reminder: An overall grade point average of 2.0 (C) or above is required for graduation.

CERTIFICATE IN COLLISION REPAIR TECHNOLOGY — 30 CREDITS

Discipline Core Requirements: 30 Credits

Complete the following:

• AUT	1260	Tech Math for Mechanics	3
• CLSS	1000	Student Success	
or ENGL	106A	Career Writing for Technology - A	2
• CRT	1110	Surface Preparation	4
• CRT	1120	Nonstructural Repair	4
• CRT	1130	Overall Refinishing and Problem Solving	4
• CRT	1210	Blending, Tinting, and Detailing	4
• CRT	1220	Panel Replacement and Adjustment	4
• CRT	1230	Welding and Cutting	4
•		Social/Behavioral Science	1

Graduation Requirements:
1 Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA).

DIPLOMA IN COLLISION REPAIR TECHNOLOGY — 58 CREDITS

Discipline Core Requirements: 34 Credits

Complete the following:

• AUT	1260	Tech Math for Mechanics	3
• CLSS	1000	Student Success	
or ENGL	106A	Career Writing for Technology - A	2
• CRT	1110	Surface Preparation	4
• CRT	1120	Nonstructural Repair	4
• CRT	1130	Overall Refinishing and Problem Solving	4
• CRT	1210	Blending, Tinting, and Detailing	4
• CRT	1220	Panel Replacement and Adjustment	4
• CRT	1230	Welding and Cutting	4
• Social/Behavioral Science			1
• CRT	281R	Cooperative Work Experience*	
• CRT	285R	Cooperative Correlated Class*	
• CRT	299R	VICA (optional)	

Specialty Core Requirements: 24 Credits

Complete one of the following emphases (see detail below):
• Collision Repair
• Street Rod

Graduation Requirements:
1 Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA).

NOTE:
*Cooperative Education courses may be used in place of some of the laboratory or shop classes for completion of diploma requirements. Approval of the program coordinator must be secured before class enrollment.

AAS IN COLLISION REPAIR TECHNOLOGY — 74 CREDITS

General Education Requirements: 16 Credits

• ENGL	1060	Career Writing for Technology (or higher)	3
• AUT	1260	Tech Math for Mechanics	3
• 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: 34 Credits

• CRT	1110	Surface Preparation	4
• CRT	1120	Nonstructural Repair	4
• CRT	1130	Overall Refinishing and Problem Solving	4
• CRT	1210	Blending, Tinting, and Detailing	4
• CRT	1220	Panel Replacement and Adjustment	4
• CRT	1230	Welding and Cutting	4
• CRT	281R	Cooperative Work Experience*	
• CRT	285R	Cooperative Correlated Class*	
• CRT	299R	VICA (optional)	

Specialty Core Requirements: 24 Credits

Complete one of the following emphases (see detail below):
• Collision Repair
• Street Rod

Graduation Requirements:
1 Completion of a minimum of 74 semester credits
2 Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA).

AAS IN COLLISION REPAIR TECHNOLOGY (CON'T) — 74 CREDITS

3 Residency hours—minimum of 20 credit hours through course attendance at UVSC.
4 Completion of GE and specified departmental requirements.

*NOTE
Cooperative Education courses may be used in place of some of the laboratory or shop classes for completion of diploma requirements. Approval of the program coordinator must be secured before class enrollment.

Collision Repair

Specialty Core Requirements: 24 Credits

• CRT	2310	Collision Damage Reporting	4
• CRT	2320	Structural Damage Analysis	4
• CRT	2330	Structural Repair	4
• CRT	2410	Full and Partial Panel Replacement	4
• CRT	2420	Plastic Repair	4
• CRT	2430	Mechanical and Electrical Repair	4

Street Rod

Specialty Core Requirements: 24 Credits

• CRT	2510	Custom Welding	4
• CRT	2520	Customizing	4
• CRT	2530	Panel Fabrication	4
• CRT	2610	Top Chopping, Sectioning, and Channeling	4
• CRT	2620	Frames	4
• CRT	2630	Detailing and Custom Painting	4

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Collision Repair Technology

Specialty Core Requirements: 45 Credits

• CRT	1120	Nonstructural Repair	4
• CRT	1130	Overall Refinishing and Problem Solving	4
• CRT	1210	Blending, Tinting, and Detailing	4
• CRT	1220	Panel Replacement and Adjustment	4
• CRT	1230	Welding and Cutting	4
• CRT	2310	Collision Damage Reporting	4
• CRT	2320	Structural Damage Analysis	4
• CRT	2330	Structural Repair	4
• CRT	2410	Full and Partial Panel Replacement	4
• CRT	2420	Plastic Repair	4
• CRT	2430	Mechanical and Electrical Repair	4
• CRT	299R	VICA	1

NOTES:
No upper division Technology Management (ie Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

Due to the technical nature of the material in the CRT courses, additional reading and math instruction may be required. More information will be given during advisement.

RECOMMENDED COLLISION REPAIR COURSE

The following course is recommended for students who would like to learn basic skills in the collision industry, while working on their own vehicle.

• CRT	100R	Paint Your Own Car	2

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms

offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

CRT 100R
Paint Your Own Car
2:1:4 Su, F, Sp
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.

CRT 1110
Surface Preparation
4:1.5:7 F
Presents how to prepare metal surfaces for painting through removing finishes and rust, sanding old finishes, applying and sanding fillers. Teaches how to mask for, mix, and spray on primer surfaces. Covers block sanding, use of two-part fillers, removal of wax and grease, blow-out, and surface pre-cleaning. Uses ICAR Advanced Technical Curriculum. Successful completers should be prepared for ASE certification. Includes lecture, lab, and demonstrations. Taught in a five week block.

CRT 1120
Nonstructural Repair
4:1.5:7 F
Teaches how to analyze minor damage and apply metal working techniques. Studies application of rough out, ridge alignment, hammer and dolly, heat shrinking, pick and file, and grinding methods. Presents application of body fillers and shaping. Emphasizes safety precautions. Includes lecture, demonstrations, and lab. Uses ICAR Advanced Technical Curriculum. Successful completers should be prepared for ASE certification.

CRT 1130
Overall Refinishing and Problem Solving
4:1.5:7 Sp
Teaches use and maintenance of shop paint spray equipment. Studies types of sealers, their use and application. Discusses refinish products and recommended refinish systems. Teaches removal of orange peel or sags left in the refinishing process. Covers cutting and buffing. Includes lecture, demonstrations, and lab. Uses ICAR Advanced Technical Curriculum. Successful completers should be prepared for ASE certification.

CRT 1210
Blending Tinting and Detailing
4:1.5:7 Sp
Teaches how to remove paint with paint remover. Studies grinding off oil, painting, feather edging, primer-surface block sanding, and paint coloring. Presents preparation and refinishing of a vehicle in single, double, and triple stage finishes. Includes lecture, demonstrations, and lab. Uses ICAR Advanced Technical Curriculum. Successful completers should be prepared for ASE certification.

CRT 1220
Panel Replacement and Adjustment
4:1.5:7 Sp
Teaches removal, replacement, and alignment of bolt-on body panels. Presents rust removal and sheet metal fabrication by using metal brake, stretcher, shrinking tools, and other hand and machine techniques. Includes lecture, demonstrations, and lab. Uses ICAR Advanced Technical Curriculum. Taught in five week block. Successful completers should be prepared for ASE certification.

CRT 1230
Welding and Cutting
4:1.5:7 F
Introduces gas welding, followed by intense study of MIG welding and spot welding of steel and aluminum. Studies the most common joints as they apply to current vehicles. Includes lecture, demonstrations, and lab. Uses ICAR Advanced Technical Curriculum. Successful completers should be prepared for ASE certification.

CRT 2310
Collision Damage Reporting
4:1.5:7 F
Teaches estimating procedures. Uses Crash Estimating Guide. Covers labor and material costs, judgment of repairs, estimating, and insurance nomenclature. Includes computer generated damage reporting, page logic, and ethical problem solving. Uses lecture, guest speakers, and practice exercises. Includes lecture, demonstrations, and lab. Uses ICAR Advanced Technical Curriculum. Successful completers should be prepared for ASE certification.

CRT 2320
Structural Damage Analysis
4:1.5:7 F
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.

CRT 2330
Structural Repair
4:1.5:7 F
Teaches methods, strategies, and technology needed to align and straighten unibody and frame components made from high stretched steel and plastics. Studies alignment of steering and suspension components. Includes lecture, demonstrations, and lab.

CRT 2410
Full and Partial Panel Replacement
4:1.5:7 Sp
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.

CRT 2420
Plastic Repair
4:1.5:7 Sp
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.

CRT 2430
Mechanical and Electrical Repair
4:1.5:7 Sp
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.

CRT 2510
Custom Welding
4:1.5:7 F
- Prerequisite: CRT 1110, CRT 1120, CRT 1130, CRT 1210, CRT 1220 and CRT 1230

For students pursuing a Diploma or an AAS degree in Collision Repair Technology with a pre-major 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. Includes theory and lab.

CRT 2520
Customizing
4:1.5:7 F
- Prerequisite: CRT 1110, CRT 1120, CRT 1130, CRT 1210, CRT 1220 and CRT 1230

For students pursuing a Diploma or an AAS degree in Collision Repair Technology with a pre-major in Custom Street Rod Technology or interested community members with a welding background. Covers frenching, shaving, body modifications, convertible conversions, building hood scoops, louvers, flare, and other technical customizing processes. Includes theory and lab.

CRT 2530
Panel Fabrication
4:1.5:7 F
• Prerequisite: CRT 1110, CRT 1120, CRT 1130, CRT 1210, CRT 1220 and CRT 1230
For students pursuing a Diploma or an AAS degree in Collision Repair Technology with a pre-major in Custom Street Rod Technology or interested community members. Covers basic fabricating tools such as sheet metal brake, slip rolls, band show, and nibblers. Uses specialty tools such as English wheel, power hammer, kraftfomer, plenisher hammer, shrinkers, and stretchers. Teaches panel fabrication and hammer forming. Includes theory and lab.

CRT 2610
Top Chopping Sectioning and Channeling
4:1.5:7 Sp
• Prerequisite: CRT 1110, CRT 1120, CRT 1130, CRT 1210, CRT 1220 and CRT 1230
For students pursuing a Diploma or an AAS degree in Collision Repair Technology with a pre-major in Custom Street Rod Technology or interested community members with a basic welding and collision repair background. Covers the history of vintage vehicles, methods to top chopping, sectioning and channeling techniques.

CRT 2620
Frames
4:1.5:7 Sp
• Prerequisite: CRT 1110, CRT 1120, CRT 1130, CRT 1210, CRT 1220 and CRT 1230
For students pursuing a Diploma or an AAS degree in Collision Repair Technology with a pre-major 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 subframing, pro-streeting, narrowing of rear ends, drive shafts, and complete frame change over. Covers exhaust systems and other alternations, front to rear. Includes theory and lab.

CRT 2630
Detailing and Custom Painting
4:1.5:7 Sp
• Prerequisite: CRT 1110, CRT 1120, CRT 1130, CRT 1210, CRT 1220 and CRT 1230
For students pursuing a Diploma or an AAS degree in Collision Repair Technology with a pre-major in 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 multicolored changes. Includes theory and lab.

CRT 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: CRT 285R
Designed for Collision Repair 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. Provides experience in writing and completing individualized work objectives that improve present work performance. May be repeated as desired for interest.

CRT 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: 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 as desired for interest.

CRT 299R
VICA
1:1:0 F, Sp
Designed for Collision Repair 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. May be repeated as desired for interest.

COLLEGE SUCCESS

Department of College Success and Academic Literacy

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Faculty:

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School of General Academics

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Assistant Dean: Lisa Lambert
Office: LA 210d
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Office: LA 210
Telephone: 801-863-6312

ACADEMIC OPPORTUNITIES

The department mission is to guide students to increase self-awareness, develop confidence in their ability to think and read critically, and study effectively. In partnership with Student Life and Student Services, the department provides support to students during their transition into the UVSC community and assists students in their discovery of a major and a career path for their college experience and beyond. Students may choose from a variety of College Success (CLSS) and Critical Thinking and Reading Strategies (CTRS) courses which best fit their academic needs. The College Success courses better prepare students for the demands of college life, the selection and pursuit of major and career paths to graduation, development of effective ways to manage time, learning, and stress, library research techniques, and the development of other essential life skills. The Critical Thinking and Reading Strategies courses teach students to effectively process, reduce, and remember the essentials from college courses and texts. Also presented are test taking and memory skills, speed reading techniques, and other learning strategies which help students increase their academic confidence and success.

OTHER SERVICES

Learning Strategist: Bonnie Blackburn
Office: LC 208
Telephone: 801-863-7418

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

CLSS 1000
Student Success
3:2:2 **Su, F, Sp**
• Prerequisite: Appropriate reading skills
Helps students develop a learning system for attaining maximum success in college, in work and in life. Presents effective techniques for dealing with time management, reading, writing, and critical thinking. Covers topics such as memory, note taking, test taking, and relationships. Develops an awareness of campus resources and assists students in exploring and establishing personal, academic, and career goals. Includes lectures, group interaction, exercises, and projects which apply learning to real life situations.

CLSS 1010
Student Success Topics
1-2:1-2:0 **Su, F, Sp**
• Prerequisite: Appropriate reading skills
Variable credit course that surveys essential skills for success in college. Topics covered include: memory, note taking, test taking, textbook reading and study strategies, time management, writing processes, and thinking skills.

CLSS 1030 **GS**
Student Leadership Development I
2:1:3 **Not 03-04**
Provides an overview of leadership styles, personalities, and organizational dynamics for student leaders. Explores the structure and culture of Student Leadership, Utah Valley State College, the governing boards of higher education, and the State of Utah relating to shared governance and student involvement in campus leadership.

CLSS 1040 **GS**
Student Leadership Development II
2:1:3 **Not 03-04**
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.

CLSS 1050
Library Research
1:1:0 **Su, F, Sp**
Presents in-depth library skills and research strategies. Teaches information-gathering strategies and processes. Emphasizes information access through traditional research tools and electronic resources. Covers compilation of annotated bibliographies. Successful completers should be well prepared for further intensive research and writing.

CLSS 1100
Stress Management—Hardiness
3:3:0 **Su, F, Sp**
• Prerequisite: DRP score of at least 60
Presents strategies to develop new attitudes for coping with stressful circumstances. Increases a broader perspective and deeper understanding of acute and chronic stress. Develops conflict resolution techniques through improved communication skills. Studies physiological signs of stress and strain. Emphasizes relaxation techniques to increase performance and reduce the effects of stressful situations. Presents how diet affects personal performance and stress reduction. Explores physical fitness and the effects a sound body can have on coping with stress.

CLSS 1200
The 7 Habits of Highly Effective People
3:3:0 **Su, F, Sp**
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 life-long success. Includes highly interactive class discussions, application exercises, videos, and group work.

CLSS 1300
Learning to Learn
2:2:0 **F**
• Prerequisite: Completion of CLSS 1000 or appropriate level of reading and study skills
For students who possess basic study skills and desire advanced knowledge and techniques. Introduces the power of self motivation and concrete methods for moving beyond passive "information processing" to active classroom learning. Combines insights from philosophy, psychology, education, and studies on peak performance.

Focus is on memory, thinking, creativity, concentration, and the personal dynamics of the learning process. Includes self-introspection, lecture, group interaction, and application of principles to the academic setting.

CLSS 2100
Career and Major Exploration
2:2:0 Su, F, Sp
For students seeking help in the selection of majors and careers. Assesses and clarifies interests, skills, values, and personal characteristics. Explores college majors, careers, and the world of work. Integrates knowledge of self with career options. Teaches decision making skills to help students make well informed career decisions and goals. Develops an action plan for graduation.

CLSS 2200
Leadership Mentoring I
3:3:0
• Prerequisite: CLSS 1000
Provides the theoretical base and hands-on training for potential UV Leaders. Examines leadership and mentoring techniques. Focuses on applying and practicing mentoring skills. Assists students in developing their own advanced learning system and explores methods for mentoring these skills. Introduces and applies important presentation skills. Includes highly interactive class discussions, group exercises, and oral presentations.

CLSS 2300
Leadership Mentoring II
2:2:0 Su, Sp
• Prerequisite: CLSS 1000
For UV Leaders who will assist faculty as peer mentors in Student Success, Power Reading Strategies linked with content courses, or various other course pairings. Emphasizes formation of learning communities to facilitate the transition of first-year students. Focuses on developing mentoring skills to help students connect to the college; identifies UVSC college resources, policies, and procedures; and stresses effective academic strategies. UV Leaders develop communication and leadership skills as they process and integrate classroom experiences and responsibilities, while they assist first-year students. Includes lectures, collaborative learning activities, field experiences, case studies, student presentations, journal writing and portfolios.

CLSS 240R
Leadership Mentoring Practicum
2:1:10
• Prerequisite: CLSS 1000, CLSS 2200, CLSS 2300
Allows UV Leader to work with cooperating instructor to set goals and evaluate performance as a peer mentor in a CLSS 1000 classroom. Provides opportunities to demonstrate mentoring and presentation skills. Features organizing study groups, service learning, and student life activities. May be repeated for a maximum of 6 credits toward graduation.

CTRS 0800
Introduction to Critical Thinking and Reading
5:5:0 F, Sp
• Prerequisite: ACT of 19 or above, or DRP of 50-57, or Compass Reading Score of 45-52
Designed to give under prepared college students a "jump start" in college. Introduces critical thinking and reading skills with integrated vocabulary and concept development, using a wide range of reading, writing, and discussion methods and experiences. Gives intensive instruction in high utility, college-level vocabulary words. Emphasized college survival study skills. Successful completion prepares students for CTRS 0900: Critical Thinking and Reading.

CTRS 0900
Critical Thinking and Reading
3:3:0 Su, F, Sp
• Prerequisite: Pass CTRS 0800 with a C- or above, or ACT of 19 or above, or DRP of 58 - 69, or Compass Reading Score of 53 - 66
For students wanting to increase their degree of college textbook reading power. Emphasizes comprehension, vocabulary growth and reading enjoyment. Upon completion, students should be ready to take RDG 1170, Advanced College Textbook Reading. Develops college-level critical thinking and reading skills important for success in college. Builds academic confidence and college vocabulary, and both encourages and increases ability to enjoy reading for information and pleasure. Successful completion prepares students for CTRS 1170: Advanced Critical Thinking and Reading.

CTRS 1170
Advanced Critical Thinking and Reading
3:3:0 Su, F, Sp
• Prerequisite: Pass CTRS 0900 with a C-, or ACT of 19 or above, or DPR of 70 or above, or Compass Reading Score of 67 or above
Teaches advanced critical thinking and reading strategies on literal, interpretive and applied levels. Helps students develop a college textbook learning system in four stages: preparing to read, comprehending while reading, identifying, marking key information, and reducing and retaining what is read. Develops interactive reading strategies such as activating schema, predicting test questions, and college-level vocabulary development in many disciplines. Utilizes actual textbook chapters for application of strategies being learned. Helps student increase academic confidence and test scores while noticeably reducing study time. Successful completion prepares students to apply their advanced critical thinking and reading skills in any college course.

CTRS 1180
Speed Reading
2:2:0 Su, F, Sp
• Prerequisite: ACT of 19 or higher, or DPR above 77, or Compass Reading Score above 74
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.

CTRS 1190
Power Reading Strategies
2:2:0 F, Sp
• Prerequisite: ACT of 19 or above, or DRP of 80 or above, or Compass Reading score of 78 or above
For independent learners with good reading skills who want to more efficiently and effectively understand and remember what they are reading in college texts. Presents a wide variety of critical thinking and reading strategies. Offered only online.

COMMITTEE ON INTERDISCIPLINARY STUDIES

Committee Chair: David Knowlton

Office: LA 012w
Telephone: 801-863-6196

Faculty Committee:

Professor
William W. Cobb, Jr.
Scott Abbott
Associate Professor
Robert Cousins
Kathie Debenham
Bryan Eldredge
Jans B. Wager
Assistant Professor
Brian Birch
Philip Gordon
John Goshert
Shannon Mussett
David Wilson

School of Humanities, Arts, and Social Sciences

Dean: William W. Cobb, Jr.
Office: LA 209d
Telephone: 801-863-7435

The Committee on Interdisciplinary Studies provides a framework for supporting innovative, boundary-crossing inquiry among students and faculty in the School of Humanities, Arts, and Social Science, and across campus. To this end the Committee coordinates the efforts of existing multidisciplinary programs and provides guidance and support as new programs are envisioned and established.

The boundaries between disciplines form a fertile ground for creative and innovative research. New knowledge grows in these developing and interstitial fields that often does not fit easily into the standard demarcations of academic departments. While the disciplines have their role to play, future scholarships will depend in part on shifting configurations of resources. This type of scholarship asks questions that draw on established bodies of thought while reworking certain connections and concerns in order to explore vibrant and valuable new areas.

AMERICAN STUDIES

Committee Chair: Robert Cousins

Office: LA 114n
Telephone: 801-863-8571

Faculty Committee:

Associate Professor
Lyn Bennett
Robert Cousins
Assistant Professor
Phil Gordon

American Studies is 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 the knowledge and skills they are mastering as part of their major from the perspective of other disciplines, American Studies courses will foster deeper critical thinking and broader contextualization. Thus an American Studies minor will offer students a strong complement to a wide variety of majors—an additional course of study that will help them to balance the focus of a traditional discipline with the fresh insights and breadth of interdisciplinary approaches.

MINOR IN AMERICAN STUDIES — 21 CREDITS

Matriculation Requirements:				
1	Completion of 30 hours of credit			
2	Admitted to a bachelor degree program at UVSC.			
Discipline Core Requirements:12 Credits				
•	AMST	2000	Introduction to American Studies	3
•	AMST	300R	Topics in American Studies (3 credits, must be repeated)	6
•	ENGL	3890	Contemporary Critical Approaches to Literature	
or	HIST	3010	The Nature of History	3
Elective Requirements:9 Credits				
•	Complete nine hours of advisor-approved electives. Elective courses should reflect a specific topical or thematic focus and must be approved by an American Studies advisor.			9
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 UVSC			

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

AMST 2000
Introduction to American Studies
3:3:0 F

• Prerequisite: ENGL 2010 or ENGL 2020

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
3:3:0 F, Sp

• Prerequisite: ENGL 2010 or ENGL 2020

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 six credits toward graduation.

DEAF STUDIES

Committee Chair: Bryan Eldredge

Office: LA 003j
Telephone: 801-863-8529 voice/videophone

Committee Member:

Assistant Professor
Minnie Mae Wilding-Diaz

Deaf Studies is an interdisciplinary field that draws on work from a variety of academic disciplines including anthropology, history, linguistics, interpretation and translation, education, psychology, sociology, public administration, political science, social work, philosophy, ethics, art, literature, and American Sign Language (ASL) instruction. Students will examine elements of what cultually-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. The interdisciplinary nature of Deaf Studies courses challenges students to approach cultural descriptions critically. A Deaf Studes minor will offer students a strong complement to a wide variety of majors. The breadth of thinking and focus that an interdisciplinary approach brings to more traditional disciplines is a primary. Students who earn this minor will find increased employability in a range of professions.

The minor in Deaf Studies provides students with a historical, cultural, and linguistic foundation. From this foundation the minor prepares students to become certified interpreters, to become ASL and Deaf studies teachers, to pursue graduate work in deaf education and a variety of other disciplines, and to engage in any number of professional fields related to deafness.

MINOR IN DEAF STUDIES — 21 CREDITS

Matriculation Requirements:				
1	Declaration of a major in a bachelor degree program at UVSC			
2	Completion of ASL 2020 or equivalent			
Discipline Core Requirements:				21 Credits
Complete the following:				
•	ASL	3050	Advanced American Sign Language	3
and	ASL	3530	Deaf Culture from 1970	3
and	ASL	3610	ASL Literature	3
Complete 3 credits from the following:				3
•	ASL	3510	Deaf Culture to 1817	
or	ASL	3520	Deaf Culture 1817 to 1970	
or	ASL	4410	ASL Linguistics	
Complete 9 credits from the following				9
•	ASL	3310	Interpreting I	

MINOR IN DEAF STUDIES (CON'T) 21 CREDITS

- ASL 3330 Cross-Cultural Communication and Interpreting
- ASL 3350 Consecutive Interpreting
- ASL 3360 Simultaneous Interpreting
- ASL 3510 Deaf Culture to 1817
- ASL 3520 Deaf Culture 1817 to 1970
- ASL 3800 ASL Deaf Culture Studies
- ASL 4410 ASL Linguistics
- LANG 3000 Language and Culture

or ANTH 3000 Language and Culture

Graduation Requirements

1 Overall GPA of 2.0 or above.
2 Residency hours—minimum of 12 credits counting towards the minor through attendance at UVSC.

COURSE DESCRIPTIONS

Please see "Languages" (page 261).

RELIGIOUS STUDIES

Committee Chair: Brian Birch

Office: LA 121
Telephone: 801-863-8759

Faculty Committee:

Professor
Jen Wahlquist
Associate Professor
Brian Birch
David Knowlton
Assistant Professor
Grace Chou
Philip Gordon
Michael Minch
R. Dennis Potter
Lecturer
Boyd Peterson
Alex Stecker

The Religious Studies Program is an interdisciplinary approach to the academic study of religion. Due to its influential role at the local, national, and international level, 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. A Religious Studies minor will complement a variety of majors and contribute to a well-rounded educational experience by exposing students to a multiple disciplines.

MINOR IN RELIGIOUS STUDIES 21 CREDITS

Matriculation Requirements:

1 Completion of 30 hours credit
2 Admitted to a Bachelor Degree program at UVSC

Discipline Core Requirements: 12 Credits

- PHIL 1610 Introduction to Western Religions 3

or PHIL 1620 Introduction to Eastern Religions

- RLST 3650 Approaches to Religious Studies 3
- RLST 366R Issues in Religious Studies 3
- PHIL 3600 Philosophy of Religion 3

Elective Requirements: 9Credits

Complete 9 credits of electives from the list below or as approved by advisor. All electives must be approved by advisor. 9

- ANTH 3400 Myth Magic and Religion
- ANTH 360R People and Cultures of the World
- ANTH 3460 Anthropology of Mormonism
- COMM 350R Special Topics in Mass Communication
- ENGL 2230 Myths and Legends in Literature
- ENGL 3780 Mormon Literature
- ENGL 3740 Literature of the Sacred
- ENGL 3760 World Literature
- ENGL 471R Eminent Authors
- ENGL 474R Topics in Folklore
- HIAT 4100 Jewish History
- PHIL 450R Interdisciplinary Senior Ethics Seminar
- SOC 475R Current Topics in Sociology

COURSE DESCRIPTIONS

Please see "Languages" (page 74).

COMMUNICATION

Department of Communication
Office: FA 725
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Department Chair: Philip Gordon
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Communication Administrative Assistant:
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Professor
David Litchford
Assistant Professor
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Roger Gunn
Jingdong Liang

School of Humanities, Arts, and Social Sciences
Dean: William W. Cobb, Jr.
Office: LA 209d
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PROGRAM DESCRIPTION

The mission of the Department of Communication is to help students prepare for careers that demand skills in oral, written, and visual communication in interpersonal, organizational, print, and electronic contexts. The department offers programs of study leading to Associate in Arts/Science and Bachelor of Arts/Science degrees.* (*Communication is available as an emphasis for a B.A. or B.S. in Integrated Studies.)

Programs of study in Communication at UVSC 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 interpersonal communication, intercultural communication, international communication, organizational communication, mass communication, public relations, media studies, argumentation and debate, and print, radio and television journalism.

Encouraging student internships, and working closely with Student Media and other units on campus, the curriculum balances traditional, academic-style learning with applied, practical approaches to study in the field, as exemplified in our broadcast journalism courses, which culminate in a student-produced, locally-broadcast television news show.

CAREER OPPORTUNITIES

Virtually every modern field of endeavor has increasing demand for specialists with training in the field of communication. Traditional areas of employment for communication students include: print and electronic journalism; print and electronic entertainment; public relations (public affairs, media relations, customer relations, press agentry, marketing, etc.); advertising; various sorts of writing, reviewing, and editing; training; video production; sales; and management. Today, new media technologies are expanding the need for communication specialists, as well as their range of skills. Communication also provides excellent preparation for graduate study in the fields of business, education, law, psychology, and of course, communication.

PROGRAMS

AA PRE MAJOR IN COMMUNICATION — 60 CREDITS

General Education Requirements: 35 Credits
- Complete General Education requirements as detailed in the General Education section of this catalog.

Discipline Core Requirements: 15 Credits
- COMM 1020 Public Speaking 3
- COMM 1050 Introduction to Speech Communication 3
- COMM 1130 Writing for the Mass Media 3
- COMM 1500 Introduction to Mass Communication 3

Complete 3 credits from the following: 3
- COMM 2010 Mass Communication and Society
- COMM 2100 The News Editing Process
- COMM 2110 Interpersonal Communication
- COMM 2130 Multimedia News Writing and Reporting
- COMM 2270 Argumentation
- COMM 2280 Oral Interpretation
- COMM 2300 Public Relations
- COMM 2400 Organizational Communication
- COMM 2560 Radio Production
- COMM 2700 Broadcast Journalism Anchoring and Producing
- COMM 2790 Magazine Writing
- THEA 2313 Film History I
- THEA 2323 Film History II
- THEA 2333 Race, Class, and Gender in Film

Elective Requirements: 10 Credits
- Complete 10 credit hours of one foreign language 10

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 UVSC
4. Completion of GE and specified departmental requirements
5. For the AA degree, completion of 10 credit hours of course work from one language.

AS PRE MAJOR IN COMMUNICATION — 60 CREDITS

General Education Requirements: 35 Credits
- Complete General Education requirements as detailed in the General Education section of this catalog.

Discipline Core Requirements: 18 Credits
- COMM 1020 Public Speaking 3
- COMM 1050 Introduction to Speech Communication 3
- COMM 1130 Writing for the Mass Media 3
- COMM 1500 Introduction to Mass Communication 3

Complete 6 credits from the following: 6
- COMM 2010 Mass Communication and Society

AS PRE MAJOR IN COMMUNICATION (CON'T) — 60 CREDITS

- COMM 2100 The News Editing Process
- COMM 2110 Interpersonal Communication
- COMM 2130 Multimedia News Writing and Reporting
- COMM 2270 Argumentation
- COMM 2280 Oral Interpretation
- COMM 2300 Public Relations
- COMM 2400 Organizational Communication
- COMM 2560 Radio Production
- COMM 2700 Broadcast Journalism Anchoring and Producing
- COMM 2790 Magazine Writing
- THEA 2313 Film History I
- THEA 2323 Film History II
- THEA 2333 Race, Class and Gender in Film

Complete 6 credits from the following: 6
- COMM 120R Communication Forum
- COMM 1610 Reporting for the Mass Media
- COMM 2010 Mass Communication and Society
- COMM 2100 News Editing Process
- COMM 2130 Multimedia News Writing and Reporting
- COMM 2270 Argumentation
- COMM 2280 Oral Interpretation
- COMM 2300 Public Relations
- COMM 2400 Organizational Communication
- COMM 2560 Radio Production
- COMM 2700 Broadcast Journalism Anchoring and Producing
- COMM 2790 Magazine Writing
- COMM 282R Internship
- COMM 350R Special Topics in Mass Communication
- COMM 3520 Case Studies in Public Relations
- COMM 3600 Mass Media Ethics and Law
- COMM 3790 Case Studies in Journalism
- AMST 2000 Introduction to American Studies
- ART 1050 Photography
- AVC 3460 Creating and Publishing Web Pages
- AVC 4490 Digital Layout and Design
- ENGL 1060 Career Writing for Technology
- ENGL 106A Career Writing for Technology-A
- ENGL 2020 Intermediate Writing: Science/Technology
- ENGL 2030 Rhetoric of Persuasion
- MCT 1110 Multimedia Essentials I
- MCT 1210 Multimedia Essentials II
- MCT 2110 Digital Cinema Essentials
- MCT 2220 Marketing for Multimedia
- THEA 1023 Introduction to Film
- THEA 1113 Voice and Diction
- THEA 2313 Film History I
- THEA 2323 Film History II
- THEA 2333 Race, Class, and Gender in Film

Elective Requirements: 1 Credit
Complete any course 1000 or higher 1

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 UVSC
4. Completion of GE and specified departmental requirements

BA/BS IN INTEGRATED STUDIES — 123 CREDITS

The following Integrated Studies emphasis is available (see the Integrated Studies section of this catalog for complete degree requirement listings):
- **Communication**

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

COMM 1020 HH
Public Speaking
3:3:0 Su, F, Sp
Covers speech research, preparation, outlining, and delivery. Provides students with practical experience and evaluation.

COMM 1050 HH
Introduction to Speech Communication
3:3:0 Su, F, Sp
Surveys the questions, methods, and current status of knowledge in the discipline of speech communication. Explores communication theory and practice across a variety of contexts and forms, including verbal, non-verbal, interpersonal, group, organizational, and communication.

COMM 1130 HH
Writing for the Mass Media
3:3:0 F, Sp
Teaches Associated Press-style writing for the mass media. Focuses on organizing and presenting information to a mass audience. Emphasizes news writing.

COMM 120R
Communication Forum
1:1:0 F, Sp
Facilitates students in engaging contemporary communication issues. Provides enriched learning situations in which students may interact with noted guest scholars. Includes discussions, lectures, symposia, field trips, outreach projects and other activities oriented to immerse students in the study of communication. Meets with the Communication Club. Grading is credit/no credit. May be repeated for a total of four credits.

COMM 128R GF
Forensics
3:3:0 F, Sp
• Prerequisite: COMM 1020
Designed for students interested in inter-collegiate speech and theatre competition. Studies all aspects of intercollegiate speech competition and prepares the student for specialization in areas of the student's choice. Includes debate, public speaking, limited preparation speaking, oral interpretation, and reader's theatre. Members of the class will compete in forensics tournaments. Includes lecture, demonstration, practice speeches, and tournament competition. May be repeated up to four times.

COMM 1500 HH
Introduction to Mass Communication
3:3:0 Su, F, Sp
Provides a survey of the structure, operation, diversity, and effects of mass media. Discusses the different forms of media and the impact of media. Explores opportunities in communication work. Also covers consumer impacts.

COMM 1610
Reporting for the Mass Media
3:3:0 F, Sp
For students interested in pursuing careers 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 actual events in the field.

COMM 2010 HH
Mass Communication and Society
3:3:0 F, Sp
• Prerequisite: COMM 1500
Examines relationships between mass communication and society from a variety of theoretical perspectives and social concerns.

COMM 2100
The News Editing Process
3:3:0 F, Sp
• Prerequisite: COMM 1130
Introduces news judgment, content, and forms. Prepares and edits copy for publication, including rewriting faulty stories, copy editing, proofreading, headlines, newspaper design, and picture editing.

COMM 2110 (Cross-listed as MGMT 2110) SS
Interpersonal Communication
3:3:0 F, Sp
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 2130
Multimedia News Writing and Reporting
3:1:6 F, Sp
• Prerequisite: COMM 1130 or COMM 1610
Teaches advanced techniques in news writing and reporting for applied, multimedia contexts. Produces news stories for print, radio, television, and internet. Covers news selection, interviewing techniques, field reporting, news videography, and script-writing for the various media. Produces voice overs (VO), voice over to sound on tape (VO-SOT), and news packages for student-produced television newscast. Requires students to supply news packages for student-produced newscasts.

COMM 2270
Argumentation
3:3:0 F, Sp
Examines the study of argument. Emphasizes reasoning, evidence, analysis, evaluation, audience analysis, and practice.

COMM 2280 GF
Oral Interpretation
3:3:0 F, Sp
• Prerequisite: COMM 1020 or THEA 1033 or THEA 1113
Prepares students to perform individual oral interpretation of literature. Presents techniques relative to the interpretation of poetry, prose, and drama. Introduces interpreter's theatre. Completers should be conversant with the three major divisions of theatrical literature and be skilled in verbal and non-verbal communication as applied to theatrical productions.

COMM 2300
Public Relations
3:3:0 Su, F, Sp
• Prerequisite: COMM 1500
Introduces the basics of writing for the media, designing corporate literature and working with the public in behalf of a business or individual.

COMM 2400
Organizational Communication
3:3:0 Sp
• Prerequisite: COMM 1050 or consent of instructor
Teaches how communication processes affect organizations. Applies theory to organizational analysis. Utilizes dialogue and network analysis to improve organizational values and performance.

COMM 2560
Radio Production (Cross-listed as MCT 2460)
3:3:0 Sp
Teaches television news writing, anchoring, and the non-technical aspects of producing. Requires students to produce a weekly newscast in conjunction with students from Broadcast Production, and Multimedia News Writing and Reporting.

COMM 2700
Broadcast Journalism Anchoring and Producing
3:1:6 F, Sp
• Prerequisite: COMM 1130 or COMM 1610
Teaches television news writing, anchoring, and the non-technical aspects of producing. Requires students to produce a weekly newscast in conjunction with students from Broadcast Production, and Multimedia News Writing and Reporting.

COMM 271R
Broadcast Journalism Technical Production
3:1:6
• Prerequisite: COMM 2700, MCT 2110
Teaches the technical skills of television news production, including teleprompter, character generator, audio, camera, script video timing, tape editing and playback, as well as direction of lighting, audio, floor, and the newscast itself. Produces a weekly newscast in conjunction with students from COMM 270R and COMM 231R. Repeatable for a total of six credit hours.

COMM 2790
Magazine Writing
3:3:0 Sp
• Prerequisite: COMM 1610
For students interested in pursuing careers in journalism. 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 top-

ics, such as science, politics, culture and society, education, environment, and international affairs.

COMM 282R
Internship
2-9:0.5:7.5-42.5 Su, F, Sp
• Prerequisite: Department approval
Provides an opportunity for students to get college credit by working in communication-related fields. Applies academic concepts to actual work experiences. Requires instructor approval and final report. Repeatable for a total of 9 credit hours.

COMM 290A
Independent Study
1:1:0 F, Sp
• Prerequisite: COMM 1610, Approval of instructor and department chair.
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, creating a portfolio of published news articles, producing an annotated bibliography, oral or multimedia presentation, or other options as approved by the instructor.

COMM 290B
Independent Study
2:2:0 F, Sp
• Prerequisite: COMM 1610, Approval of instructor and department chair.
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, creating a portfolio of published news articles, producing an annotated bibliography, oral or multimedia presentation, or other options as approved by the instructor.

COMM 290C
Independent Study
3:3:0 F, Sp
• Prerequisite: Approval of instructor and department chair.
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, creating a portfolio of published news articles, producing an annotated bibliography, oral or multimedia presentation, or other options as approved by the instructor.

COMM 290D
Independent Study
4:4:0 F, Sp
• Prerequisite: COMM 1610, Approval of instructor and department chair.
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, creating a portfolio of published news articles, producing an annotated bibliography, oral or multimedia presentation, or other options as approved by the instructor.

COMM 3320 (Cross-listed as MGMT 3320)
Cross-Cultural Communications for International Business
3:3:0
• Prerequisite: ENGL 2010 or ENGL 2020 or COMM 1050
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.

COMM 3400
Film Theory
3:3:0 F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020 or permission of instructor
Emphasizes cultural analysis through the readings of key texts in film theory. Relates cultural phenomena to films that reflect elements of contemporary film theory, focusing on form, narration, and style. Discusses the role of auteur, the cinematic gaze, spectatorship, and film production. Discusses film as an aesthetic, thematic, and reflective medium. Includes lecture, film screenings, and critical discussions of assigned readings. Some films screened may be considered controversial and carry an "R" rating.

COMM 3410 (Cross-listed as LEGL 3410, COMM 3410)
Fundamentals of Mediation and Negotiation
3:3:0
• Prerequisite: LEGL 1000 or PSY 1010 or SOC 1010 or COMM 1050
Prepares students to understand and participate knowledgeably on a basic level in the processes of mediation and negotiation. Improves 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 350R
Special Topics in Mass Communication
3:3:0 Sp
• Prerequisite: COMM 1500, COMM 2010
Presents selected topics in mass communication, and will vary from semester to semester. Requires a project demonstrating competency in the specific topic. May be repeated once with different topics for a total of six (6) credits. Topics could include: Representations of Mormons in the Mass Media; Representations of Nature and Technology in the Mass Media; and American Youth and Mass Media.

COMM 3520
Case Studies in Public Relations
3:3:0 F
• Prerequisite: COMM 1500, COMM 2300
Examines public relations strategic planning process through the analysis of case studies. Addresses issues in media relations, crisis communications, ethics, creative planning, research, and evaluation, using real-world situations and clients.

COMM 3600
Mass Media Ethics and Law
3:3:0 F
• Prerequisite: COMM 1500
Teaches the basics of media ethics and law. Includes ethics in journalism, broadcasting, advertising and public relations, and fundamental legal concerns, including First Amendment, libel, slander, media case law, advertising regulations, and copyright law.

COMM 3620
International Communication
3:3:0 F
• Prerequisite: COMM 2010 or consent of instructor
Introduces theories of international communication. Covers different systems of the press in different countries. Analyzes specific case studies in international media.

COMM 3790
Case Studies in Journalism
3:3:0 Sp
• Prerequisite: (COMM 1610 and COMM 2790), or (COMM 1500 and COMM 2010)
For students interested in mass media with particular interests in careers in journalism and mass media. Examines historically significant examples of the press in action from historical, ethical, and critical perspectives. Requires a research paper.

COMM 4100 (Cross-listed as LEGL 4100, PSY 4100)
Advanced Mediation and Negotiation
3:3:0
• Prerequisite: ENGL 2010 or ENGL 2020, LEGL 3410 or PSY 3410 or COMM 3410
Prepares students to perform at an advanced level in the processes of mediation and negotiation. Builds on the fundamentals learned in the basic course, improves knowledge of both processes, and sharpens practical skills and effectiveness as a mediator or negotiator. Uses an interactive-workshop format that blends theory with simulated class role-play. A certification with the Utah State Court Administrator's office may be offered to those who pass the course and complete 10 hours of mediation and negotiation at the conclusion of the semester.

COMM 413R
Advanced Television News Writing and Reporting
3:2:3 Sp
• Prerequisite: COMM 2130
Teaches advanced techniques and skills in television reporting and writing. Requires students to prepare news packages used in the weekly Utah Valley News newscast to be aired on cable. Repeatable for six credits toward graduation.

COMM 470R
On-Air Broadcast Journalism
3:1:6 F, Sp
• Prerequisite: COMM 271R and instructor approval
For students with interests in careers in broadcast journalism. Teaches live anchoring skills, television studio control room operations, television news direction, production, studio camera operation, audio control, computer graphics, teleprompter, and tape operator duties for on-air college newscasts. May be repeated three times for a total of twelve (12) credits.

COMM 479R
Journalism Workshop
3:1:6 F, Sp
• Prerequisite: COMM 2790 or consent of instructor
For student newspaper staff. Gives experience in writing, editing, and publishing. Students work on the student newspaper completing specific learning objectives related to print production such as news and feature writing, columns and editorials. May include layout, production, photography, advertising, and sales. May be repeated once for credit.

COMM 482R
Internship
2-9:0.5:7.5-42.5 Su, F, Sp
• Prerequisite: Departmental Approval
For upper division students working toward a Bachelor of Arts or a Bachelor of Science degree in Integrated Studies with a Communication emphasis. Provides a transition from school to work where academic concepts are applied to actual practice through on-the-job experience commensurate with upper-division classroom instruction. Requires instructor approval and final report. Repeatable for a total of nine credits.

COMMUNITY HEALTH

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The Community Health program at UVSC provides support courses for General Education, the Elementary Education program, and the Integrated Studies program. The department is committed to provide course work that will enable students to complete an Associate in Science or Associate in Arts Degree with a pre-major in Community Health, and that can be transferred to other institutions.

Students planning to transfer to a four-year institution, continuing with a Community Health major, should work closely with an advisor to assure appropriate courses and transferability of course work.

Courses in the Community Health area of study lead to possible careers in community health education and promotion, health care management, and other community health and human service occupations.

PROGRAMS

AA/AS PRE MAJOR IN COMMUNITY HEALTH — 62 CREDITS

General Education Requirements: 35 Credits
- Complete General Education requirements as detailed in the General Education section of this catalog.

Discipline Core Requirements: 17-27 Credits

Complete the following:
- NUTR 1020 Foundations of Human Nutrition 3
- HLTH 1200 First Aid 2
- HLTH 2400 Concepts of Stress Management 3
- HLTH 2800 Human Sexuality 3
- HLTH 2600 Drugs, Behavior and Society 3

Complete 13 credits from the following: 13
- COMM 2110 Interpersonal Communication
- ENVT 1110 Introduction to Environmental Management
- ENVT 1200 Environmental Worker Safety
- ENVT 2560 Environmental Health
- HLTH 1300 Medical Terminology I
- NUTR 2020 Nutrition Through the Life Cycle
- HLTH 2100 Peer Education and Strategies
- HLTH 2110 Peer Mentoring
- HLTH 2200 Introduction to Health Professions
- HLTH 2300 Medical Terminology II
- HLTH 2700 Health Concepts of Death and Dying
- HLTH 281R Cooperative Work Experience
- HLTH 3240 Women's Health Issues
- MGMT 3000 Organizational Behavior
- PES 2700 Foundations of Physical Education and Recreation
- PSY 1100 Human Development Life Span
- PSY 2250 Psychology of Interpersonal Relationships
- SOC 3650 Sociology of Aging

Elective Requirements (AA degree ONLY): 10 Credits
- Same Foreign Language (1010 and 1020) 10

Graduation Requirements:
1. Completion of a minimum of 62 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 UVSC.
4. Completion of GE and specified departmental requirements.
5. For the AA degree, completion of 10 credit hours of course work from one language.

BS IN COMMUNITY HEALTH — 120 CREDITS

General Education Requirements: 35 Credits
- ENGL 1010 Introduction to Writing 3
- ENGL 2010 Intermediate Writing—Humanities/Social Science 3
- or ENGL 2020 Intermediate Writing—Science and Technology

Complete ONE from the following: 3
- MATH 1030 Quantitative Reasoning (recommended for Humanities or Arts majors)
- MATH 1040 Introduction to Statistics (recommended for Social Science majors)
- MATH 1050 College Algebra (recommended for Business, Education, Science, and Health Professions majors)

Complete ONE from the following: 3
- HIST 1700 American Civilization
- HIST 2700 US History to 1877
- and HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness
- or PES 1097 Fitness for Life 2

Distribution Courses:
- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution 3

BS IN COMMUNITY HEALTH (CON'T) — 120 CREDITS

- Fine Arts Distribution 3
- Social/Behavioral Science (HLTH 2800 recommended) 3

Discipline Core Requirements: 20 Credits
- ZOOL 1090 Introduction to Human Anatomy and Physiology 3
- ENVT 2560 Environmental Health 3
- HLTH 3200 Principles of Community Health 3
- HLTH 3250 Consumer Health 3
- HLTH 3260 Modifying Health Behavior 2
- HLTH 3400 Human Diseases 3
- HLTH 4050 Foundations of Health Education 3

Specialty Core Requirements: 65 Credits

Complete ONE of the following
- Emphasis in Community Health Education 65
- or Emphasis in Health Services Administration 65

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 UVSC.
2. A minimum of 34 credit hours must be in the major with a minimum of 20 credits taken at UVSC. A minimum of 20 Health (HLTH) credits must be upper-division
3. Complete the following courses with a minimum grade of C- or better: HLTH 3200, HLTH 4050, and all Emphasis Courses.
4. Overall grade point average of 2.25 or above with a minimum GPA of 2.5 in Major and Minor courses.
5. Completion of GE and specified departmental requirements.

Community Health Education

Specialty Core Requirements: 32 Credits
- NUTR 1020 Foundations of Human Nutrition 3
- HLTH 1200 First Aid 2
- HLTH 2400 Concepts of Stress Management 3
- HLTH 2800 Human Sexuality (Cross-listed with PSY 2800) 3
- HLTH 2600 Drugs Behavior and Society 3
- HLTH 3800 Epidemiology 3
- HLTH 4150 Community Health Program Development and Evaluation 3
- HLTH 4300 Community Health Ethics 3
- HLTH 4600 Research Methods for Community Health 3
- HLTH 4800 Community Health Internship 6

Specialty Elective Requirements: 33 Credits

Complete 8 credits from the following: 8
- HLTH 3150 Culture Ecology and Health (Cross-listed with ANTH 3150)
- HLTH 3240 Women's Health Issues
- HLTH 3300 Health Promotion for Older Adults
- HLTH 4250 Health Services Organization and Policy
- HLTH 490R Special Topics in Community Health
- ISYS 3270 Business Presentation Applications
- MGMT 3600 Principles of Marketing
- SOC 3200 Race and Minority Relations

Complete 25 credits of any courses 1000 or higher (minor) 25

Health Services Administration

Specialty Core Requirements: 60 Credits
- HLTH 3300 Health Promotion for Older Adults 3
- HLTH 3800 Epidemiology 3
- HLTH 4150 Community Health Program Development and Evaluation 3
- HLTH 4250 Health Services Organization and Policy 3
- HLTH 4300 Community Health Ethics 3
- HLTH 4500 Public Health Administration* 3
- HLTH 4600 Research Methods for Community Health 3
- HLTH 4800 Community Health Internship 6
- MGMT 2200 Written Business Communication 3
- MGMT 2240 Foundations of Business Statistics 3
- MGMT 2020 Macroeconomics 3
- MGMT 2390 Effective Business Presentations 3
- MGMT 3010 Principles of Management 3
- MGMT 3430 Human Resource Management 3
- MGMT 3600 Principles of Marketing 3
- ACC 2010 Financial Accounting 3
- ACC 2020 Managerial Accounting 3
- ISYS 3120 Principles of Information Systems—A Managerial Approach 3
- LEGL 3160 Health Care Law*

Specialty Elective Requirements: 5 Credits

Complete any courses 1000 level or higher 5.0

Note:

BS IN COMMUNITY HEALTH (CON'T) 120 CREDITS

*See Department

BS IN SCHOOL HEALTH EDUCATION 123 CREDITS

Matriculation Requirements:

1 Students with a School Health Education emphasis must meet the requirements for admission into Secondary Education Program at UVSC.

General Education Requirements:			35 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	3
or ENGL	2020	Intermediate Writing—Science and Technology	
Complete ONE from the following:			3
• MATH	1030	Quantitative Reasoning (recommended for Humanities or Arts majors)	
• MATH	1040	Introduction to Statistics (recommended for Social Science majors)	
• MATH	1050	College Algebra (recommended for Business, Education, Science, and Health Professions majors)	
Complete ONE from the following:			3
• HIST	1700	American Civilization	
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health & Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses:			
• Biology			3
• Physical Science			3
• Additional Biology or Physical Science			3
• Humanities Distribution			3
• Fine Arts Distribution			3
• Social/Behavioral Science (HLTH 2800 recommended)			3
Discipline Core Requirements:			70 Credits
• ZOOL	1090	Introduction to Human Anatomy and Physiology	3
• ENVT	2560	Environmental Health	3
• HLTH	3200	Principles of Community Health	3
• HLTH	3250	Consumer Health	3
• HLTH	3260	Modifying Health Behavior	2
• HLTH	3400	Human Diseases	3
• HLTH	4050	Foundations of Health Education	3
• NUTR	1020	Foundations of Human Nutrition	3
• HLTH	1200	First Aid	2
• HLTH	2400	Concepts of Stress Management	3
• HLTH	2800	Human Sexuality	3
• HLTH	2600	Drugs Behavior and Society	3
• HLTH	4100	Health Education Curriculum for Secondary Teachers	3
• HLTH	4200	Health Education Teaching Methods	3
Secondary Education Courses:			
• EDSC	2540	Development of the Adolescent Student	2
• EDSC	3000	Educational Psychology	3
• EDSC	3050	Foundations of American Education	2
• EDSC	3250	Instructional Media	2
• EDSC	4200	Classroom Management I	1
• EDSC	4250	Classroom Management II	1
• EDSC	4440	Content Area Reading and Writing	3
• EDSC	4450	Multicultural Instruction/ESL	2
• EDSC	4550	Secondary Curriculum Instruction and Assessment	4
• EDSC	4850	Student Teaching —Secondary	4
• EDSP	3400	Exceptional Students	2
Elective Requirements			
Complete a Secondary Education approved Minor			18

Graduation Requirements:

1 Completion of a minimum of 123 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 UVSC.
2 A minimum of 34 credit hours must be in the major with a minimum of 20 credits taken at UVSC. A minimum of 20 Health credits must be upper-division
3 Complete the following courses with a minimum grade of C- or better: HLTH 3200, HLTH 4050, and all Emphasis Courses.
4 Overall grade point average of 2.25 or above with a minimum GPA of 2.5 in Major and Minor courses.
5 Completion of GE and specified departmental requirements.

BA/BS IN INTEGRATED STUDIES 123 CREDITS

The following Integrated Studies emphasis is available (see the Integrated Studies section of this catalog for complete degree requirement listings):

- Community Health

MINOR IN COMMUNITY HEALTH EDUCATION 20 CREDITS

Matriculation Requirements:

1 Admitted to a bachelor degree program at UVSC.

Discipline Core Requirements:			17 Credits
• NUTR	1020	Foundations of Human Nutrition	3
• HLTH	2600	Drugs Behavior and Society	3
• HLTH	2800	Human Sexuality	3
• HLTH	3200	Principles of Community Health	3
• HLTH	3260	Modifying Health Behavior	2
• HLTH	4050	Foundations of Health Education	3
Elective Requirements			
Any upper-division HLTH course not used in Discipline Core			3

MINOR IN SCHOOL HEALTH EDUCATION 20 CREDITS

Matriculation Requirements:

1 Must be accepted into a Secondary Education major program at UVSC.

Discipline Core Requirements:			17 Credits
• NUTR	1020	Foundations of Human Nutrition	3
• HLTH	2600	Drugs Behavior and Society	3
• HLTH	2800	Human Sexuality	3
• HLTH	3200	Principles of Community Health	3
• HLTH	3260	Modifying Health Behavior	2
• HLTH	4050	Foundations of Health Education	3
• HLTH	4100	Health Education Curriculum for Secondary Teachers	3

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

HLTH 1100 TE
Personal Health and Wellness
2:2:0 Su, F, Sp

Examines the basic health "wellness" concept of good health through healthy living. 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.

HLTH 1200 GE
First Aid
2:2:0 Su, F, Sp

For allied health professions such as nursing, community health, gerontology, radiology, physical therapy, sports medicine, and for other students and community members. Provides emergency first aid care training. Structured to meet National Safety Council First Aid requirements. Successful completers will be certified in First Aid and CPR. Includes lectures, lab with hands-on experience with mannequins, audiovisuals, discussions, and field trips.

HLTH 1300
Medical Terminology I
2:2:0 Su, F, Sp

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.

HLTH 1800 GE
Occupational Safety
1:1:0 Sp

Designed to fill the safety requirements for Trade/ Technical/Industrial students. Covers general safety guidelines of controlling groups such as OSHA and the Hazardous Waste Material Committee.

HLTH 2100
Peer Education and Strategies
1:1:0 F

For students interested in health and lifestyle issues. Teaches knowledge and skill necessary to be an effective peer educator. Examines individual and community health behaviors and peer education strategies necessary to motivate healthy behaviors in others. Includes outside class experiences and projects.

HLTH 2110
Peer Mentoring
1:0:3 Sp

• Prerequisite: HLTH 2100

For students interested in health and lifestyle issues. Continuation of HLTH 2100, Peer Health Education. Student will be assigned upper level elementary education student(s) to mentor during the semester. Will meet monthly to discuss problems and progress.

HLTH 2200
Introduction to Health Professions
2:2:0 F

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 2300
Medical Terminology II
2:2:0 Sp

• Prerequisite: HLTH 1300

Introduces advanced medical terminology. Adds depth to the areas of reading, writing, spelling, abbreviations, and understanding the medical language. Emphasizes irregular inflected forms of medical terms. Covers additional areas of medicine not covered in HLTH 1300. Deals with abbreviations, trade names of drugs, table of

elements, table of Latin and Greek terms used in prescriptions, and medical signs and symbols. Emphasizes technical vocabulary. Introduces the use of the Physician's Desk Reference. Includes lectures and audiovisual presentations.

HLTH 2400
Concepts of Stress Management
3:3:0 F, Sp
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.

HLTH 2600 SS
Drugs Behavior and Society
3:3:0 Su, F, Sp
For students interested in drug abuse prevention. Studies substance mis-use and abuse. Discusses addictive behaviors, dependence, and treatment modalities. Examines common substances of abuse and dependence and effects upon individuals and society. Investigates the use of psychotherapeutic drugs in the treatment of mental illness. Promotes awareness of personal and social decisions concerning drugs, behaviors, and habits.

HLTH 2700 SS
Health Concepts of Death and Dying
3:3:0 F, Sp
For students interested in various health care professions. 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.

HLTH 2800 (Cross-listed as PSY 2800) SS
Human Sexuality
3:3:0 Su, F, Sp
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 281R
Cooperative Work Experience
2-9:1:5-40 F, Sp
• Prerequisite: Approval of Cooperative Coordinator
For Community Health majors. Provides paid, on-the-job 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 objectives that improve present work performance. Credit is determined by the number of hours a student works during the semester. May be repeated for a maximum of nine credits.

HLTH 3100
Health Education for Elementary Teachers
2:2:0 Su, F, Sp
• Prerequisite: ENGL 1010
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.

HLTH 3150 (Cross-listed as ANTH 3150) SS
Culture Ecology and Health
3:3:0 F
• Prerequisite: ENGL 1010 and (ANTH 1010 or PSY 1010 or SOC 1010)
Examines reciprocal roles of culture, environment, and disease in human health. Covers nutrition, stress, and traditional non-Western treatments. Explores cultures' use of their own global medicine to sustain health and welfare.

HLTH 3200
Principles of Community Health
3:3:0 Su, Sp
For students in health and behavioral sciences who wish to work in community health settings. Presents the role and function of various community health services and agencies and how they interface. Examines health care models and agencies, health care reform, health objectives for the nation, and health planning and promotion. Explores life style risk reduction, environmental issues, ethical health issues, and other appropriate topics. Includes lecture, videos, class discussion, student presentations, and outside assignments.

HLTH 3240
Womens Health Issues
3:3:0 F, Sp
• Prerequisite: HLTH 1100
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.

HLTH 3250
Consumer Health
3:3:0 Sp
• Prerequisite: HLTH 1100
For students interested in a community health career. Focuses on helping students become discriminating consumers of health information, products, and services. Explores consumer health issues including types, cost, availability, efficacy, and safety of health care products and services. Examines health quackery, fadism, and consumer protection.

HLTH 3260
Modifying Health Behavior†
2:2:0 F
• Prerequisite: HLTH 1100
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
3:3:0 F
• Prerequisite: HLTH 1100
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. Also covers medication issues, long term care, death and dying, and other related topics.

HLTH 3400 BB
Human Diseases
3:3:0 Su, F, Sp
• Prerequisite: ZOOL 1090 or Instructor Permission and MICR 2060 Recommended
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 3800
Epidemiology
3:3:0 F
• Prerequisite: Statistics, HLTH 3400 recommended
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 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.

HLTH 4050
Foundations of Health Education
3:3:0 F
• Prerequisite: HLTH 3200 or instructor permission
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 4100
Health Education Curriculum for Secondary Teachers
3:3:0
• Prerequisite(s): HLTH 3200
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.

HLTH 4150
Community Health Program Development and Evaluation
3:3:0 Sp
• Prerequisite: HLTH 3200 or instructor permission, HLTH 4050 recommended
For students interested in a community health career. Covers the methodology necessary to successfully plan, develop, and deliver effective health education programs. Focuses on the skills necessary to carry out program development assessing need, planning, implementing, evaluating, and revising in community health settings.

HLTH 4200
Health Education Teaching Methods
3:3:0
• Prerequisite(s): HLTH 4100
For secondary education school health majors. Examines teaching methods, materials and techniques. Studies secondary education health curriculum, program planning, development, implementation, and evaluation. Students will develop lesson plans and present them in secondary education settings.

HLTH 4250
Health Services Organization and Policy
3:3:0 SP
• Prerequisite: HLTH 3200 or Instructor Permission
For students in health care fields and integrated studies who wish to work in health service settings. Presents organization structure of various health services and agencies. Examines the following issues as they relate to health care settings and agencies: financing and budgetary processes; available resources, networking and coalition building; administrative processes, politics, policy making, communication styles and issues; evaluation and outcome assessments. Includes lecture, class discussion, web enhancements, video, student presentations and outside assignments.

HLTH 4300
Community Health Ethics
3:3:0 F
• Prerequisite: HLTH 3200
For students majoring in Community Health or Integrated Studies with a Community Health emphasis. Also for students interested or working in health-care fields such as 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 health care issues such as: health care allocation, health care costs, death and dying issues, patient rights, informed consent, confidentiality etc. Investigates conflicts arising from existing and evolving codes of conduct using care studies as an arena for discussion.

HLTH 4600
Research Methods for Community Health
3:3:0 Sp
• Prerequisite: Statistics required or instructor permission
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 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 4800
Community Health Internship
6:1:25
• Prerequisite(s): Completion of Health Education Core with Major GPA 2.5
For students majoring in Community Health with an emphasis in Community Health Education or Health Care Administration. Community field work intended to give the students experience and knowledge in community health education and services. The internship is spent in appropriate community health programs, under the preceptorship of an individual qualified by education and/or experience.

HLTH 490R
Special Topics in Community Health
1-3:1-3:0 On Sufficient Demand
• Prerequisite: HLTH 3200 or Instructor Permission
Explores and examines special topics related to community health issues and problems. May include community health topics such as AIDS/HIV, West Nile Virus, special drug and sexuality issues, obesity, suicide, teenage pregnancy and terrorism. May be repeated for a maximum of six credits toward graduation.

NUTR 1020 GE
Foundations of Human Nutrition
3:3:0 Su, F, Sp
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.

NUTR 2020 BB
Nutrition Through the Life Cycle
3:3:0 F, Sp
• Prerequisite: NUTR 1020
For students interested in various health care professions, particularly professions in nutrition, dietetics, and food sciences. Studies application of nutrition principles to the human life cycle. Includes nutrient functions, needs, sources, and alterations during pregnancy, lactation, growth, development, maturation, and aging.

COMPUTER AND NETWORKING SCIENCES

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CAREER OPPORTUNITIES

There are many opportunities for those educated in computer science, networking, computer engineering, and software engineering. Possible occupational areas include software engineering, programming, network programming, systems analysis and design, network administration, consulting, computer operations, customer support, sales, end-user training, installing applications, maintaining software or networks or media systems, manufacturer's representative, client services, software testing, database administration, web programming, web design, web administration, network management, and network design.

Job demand is high in the fields of computer science, computer engineering, software engineering, and networking occupations. The employment outlook is excellent.

PROGRAMS

Students majoring in Computer Science (CS) may receive either a two-year AS or AAS degree or a four-year bachelor degree. A certificate program is available for those seeking short term specialized training.

The Associate in Science Degree in Computer Science (AS-CS) is a transfer degree and is available for those wishing to transfer to a bachelor degree program. The Associate in Applied Science Degree in Computer Science (AAS-CS) provides job-ready skills and includes areas of specialization in: Computer Engineering, Computer Networking, Computer Science Programmer, and Web Development Programmer

Note: Students may earn only one AAS Degree in Computer Science. Additional degrees will not be awarded for completing subsequent AAS-CS areas of specialization.

A four-year bachelor degree, accredited by the Computing Accreditation Commission of the Accreditation Board for Engineering and Technology (CAC of ABET, 111 Marker Pl., Suite 1050, Baltimore, MD 21202, www.abet.org), is offered in Computer Science (BS-CS). There are four possible areas of specialization: Computer Engineering, Computer Networking, Computer Science, and Software Engineering.

The Computer Science areas of specialization conform to the Association of Computing Machinery (ACM) model curriculum. Students completing the Computer Science degree should be prepared to take professional programming and networking certification exams.

Note: Students may earn only one BS Degree in Computer Science. Additional degrees will not be awarded for completing subsequent BS-CS areas of specialization.

In addition to regular programs, the Department also offers a variety of courses to provide skill upgrades, web administration, software application training, network administration education, short-term intensive training, and other services for the community.

Classroom instruction is supported by well-equipped computer laboratories with over 180 computers interconnected through a series of Microsoft, Novell, and Linux networks and servers.

NETWORK SPECIALIST CERTIFICATE — 30 CREDITS

This program is designed to prepare students for careers in computer networking. Courses in this program also fulfill a portion of the course work required for the Certified Novell Engineer (CNE) and /or the Microsoft Certified System Engineer (MCSE) certifications. The student is responsible to register for and take the required certification examinations.

Discipline Core Requirements:			21 Credits
• CNS	1000	Introduction to the Science of Computing	
or CNS	1250	Object-Oriented Programming I	3
• CNS	1510	Unix Operating System	3

NETWORK SPECIALIST CERTIFICATE (CON'T) — 30 CREDITS

• CNS	2030	Introduction to Data Communication	
or CNS	2600	Fundamentals of Data Communications	3
• CNS	2610	Network Administration	3
• CNS	2630	Network Management	3
• CNS	3610	Advanced Network Administration	
or CNS	3630	Advanced Network Management	3
• ISYS	2050	Database Fundamentals	3
Elective Requirements:			**9 Credits**
Choose 9 Credits from the following courses (Must be approved by CNS Department. See CNS Advisor):			9
• CNS	1000	Introduction to the Science of Computing	
• CNS	1350	Object-Oriented Programming II	
• CNS	1380	Assembly Language and Computer Architecture	
• CNS	2220	Visual Basic Programming	
•or CNS	3220	Visual Basic Software Development	
• CNS	2550	Internet Programming	
•or CNS	3550	Internet Software Development	
• CNS	2640	Router Management	
• CNS	2650	Fundamentals of Voice and Data Cabling	
• CNS	279R	Current Topics in Networking	
• CNS	3510	Unix System Administration	
• CNS	3630	Advanced Network Management	
• CNS	3690	Advanced Topics in Data Communications	
• CNS	479R	Advanced Current Topics in Networking	
• CNS	4610	TCP/IP Internet Architecture	

Graduation Requirements:
1 Completion of a minimum of 30 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 UVSC.

PROGRAMMER CERTIFICATE — 30 CREDITS

This program is designed to prepare students for careers requiring knowledge and skills in computer programming and software maintenance. Students are prepared to pass programming certification examinations. The student is responsible for registering for and taking the required certification examinations.

Discipline Core Requirements:			24 Credits
• CNS	1250	Object-Oriented Programming I	3
• CNS	1350	Object-Oriented Programming II	3
• CNS	1380	Assembly Language and Computer Architecture	3
• CNS	1510	Unix Operating System	3
• CNS	2300	Discrete Structures I	3
• CNS	2400	Object-Oriented Data Structures	3
• CNS	2600	Fundamentals of Data Communications	3
• ENGL	1010	Introduction to Writing	
or MGMT	2200	Written Business Communication	3
Elective Requirements:			**6 Credits**
Choose 6 Credits from the following courses (Must be approved by CNS Department. See CNS Advisor):			6
• CNS	2220	Visual Basic Programming	
or CNS	3220	Visual Basic Software Development	
• CNS	2250	Java Programming	
or CNS	3250	Java Software Development	
• CNS	2370	C++ Programming	
or CNS	3370	C++ Software Development	
• CNS	2550	Internet Programming	
or CNS	3550	Internet Software Development	
• CNS	239R	Current Topics in Computer Science	
• CNS	3060	Operating Systems Theory	
• CNS	3260	C#.NET Software Development	
• CNS	3520	Database Theory	

Graduation Requirements:
1 Completion of a minimum of 30 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 UVSC.

AAS IN COMPUTER SCIENCE — 64 CREDITS

General Education Requirements: 13 Credits

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).

- ENGL 1010 Introduction to Writing 3
- HUMANITIES/FINE ARTS/FOREIGN LANGUAGE (COMM 1020 recommended) 3
- COMM 2110 Interpersonal Communication* 3
- BIOLOGY 3
- or PHYS 2210 Physics for Scientists and Engineers I*
- PHYSICAL EDUCATION/HEALTH/SAFETY OR ENVIRONMENT 1

Discipline Core Requirements: 9 Credits

- CNS 1250 Object-Oriented Programming I* 3
- CNS 1380 Assembly Language and Computer Architecture* 3
- CNS 2600 Fundamentals of Data Communications* 3

Specialty Core Requirements: 42 Credits

Complete one of the following emphases (see detail below):

- Computer Engineering 42
- or Computer Networking 42
- or Computer Science/Programmer 42
- or Web Development Programmer 42

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 UVSC

Note:
*Minimum grade of C- required.

Computer Engineering

This program is designed to prepare students for careers in the many areas of computer science requiring a knowledge of computer systems hardware, software, device drivers, and peripheral devices. Computer Science Engineers have strong technical skills and an understanding of and ability to work with both computer hardware and software that are scientific and technical in nature.

Specialty Core Requirements: 22 Credits

Complete the following (minimum grade C- required):

- CNS 1000 Introduction to the Science of Computing 3
- CNS 1510 Unix Operating System 3
- EENG 2740 Digital Design I 4
- EENG 2750 Circuit Theory 4
- EENG 3740 Digital Design II 3
- MATH 1210 Calculus I (fulfills GE requirement) 5

Specialty Elective Requirements: 20 Credits

Complete 20 credits from the following courses (minimum grade of C- required). (Must be approved by CNS Department. See CNS Advisor): 20

- CNS 1350 Object-Oriented Programming II
- CNS 2300 Discrete Structures I
- CNS 2400 Object-Oriented Data Structures
- CNS 2550 Internet Programming
- or CNS 3550 Internet Software Development
- CNS 2610 Network Administration
- CNS 2630 Network Management
- CNS 3060 Operating Systems Theory
- CNS 3400 Software Engineering
- CNS 3520 Database Theory
- EENG 3750 Signals and Systems I
- EENG 3770 Signals and Systems II
- EENG 4730 Embedded Systems
- EENG 4750 Digital Signal Processing
- EENG 4760 Electronic Systems
- MATH 1220 Calculus II
- PHYS 2215 Physics for Scientists and Engineers I Lab

Computer Networking

This program is designed to prepare students for careers in the many areas of computer science and networking requiring a knowledge of both computer software and computer networking. The Computer Networking program is a comprehensive curriculum which covers the range of networking and data communications technologies. Students in this program are provided instruction in analysis, installation, maintenance and management of local and wide area networks, and world wide web servers.

Specialty Core Requirements: 19 Credits

Complete the following (minimum grade C- required):

- CNS 1510 Unix Operating System 3
- CNS 2610 Network Administration
- or CNS 2630 Network Management

AAS IN COMPUTER SCIENCE (CON'T) — 64 CREDITS

- or CNS 2640 Router Management 3
- CNS 3610 Advanced Network Administration
- or CNS 3630 Advanced Network Management 3
- CNS 3690 Advanced Topics in Data Communications 3
- ISYS 2050 Database Fundamentals
- or CNS 3520 Database Theory 3
- MATH 1050 College Alegebra (fulfills GE requirement) 4

Specialty Elective Requirements: 23 Credits

Complete 23 credits from the following courses (minimum grade of C- required). (Must be approved by CNS Department. See CNS Advisor): 23

- CNS 1000 Introduction to the Science of Computing
- CNS 1350 Object-Oriented Programming II
- CNS 2220 Visual Basic Programming
- or CNS 3220 Visual Basic Software Development
- CNS 2250 Java Programming
- or CNS 3250 Java Software Development
- CNS 2370 C++ Programming
- or CNS 3370 C++ Software Development
- CNS 2300 Discrete Structures I
- CNS 2400 Object-Oriented Data Structures
- CNS 2550 Internet Programming
- or CNS 3550 Internet Software Development
- CNS 2610 Network Administration
- or CNS 2630 Network Management
- CNS 2650 Fundamentals of Voice and Data Cabling
- CNS 3060 Operating Systems Theory
- CNS 3510 UNIX System Administration
- CNS 3630 Advanced Network Management
- CNS 3660 Web Server Administration and Programming
- CNS 3670 Network Programming
- CNS 4190 Distributed Enterprise Software Architecture
- CNS 4610 TCP/IP Internet Architecture
- EENG 2740 Digital Design I
- PHYS 2215 Physics for Scientists and Engineers I Lab

Computer Science/Programmer

The Computer Science Programmer area of specialization prepares students for employment opportunities in application programming, systems programming, software maintenance, and software engineering. Computer Science Programmers have strong technical skills and an understanding of, and ability to, work with applications that are scientific and technical in nature. Students are prepared to take industry standard programming certification examinations. The student is responsible for registering for and taking the required certification examinations.

Specialty Core Requirements: 25 Credits

Complete the following (minimum grade of C- required):

- CNS 1350 Object-Oriented Programming II 3
- CNS 1510 Unix Operating System 3
- CNS 2300 Discrete Structures I 3
- CNS 2400 Object-Oriented Data Structures 3
- CNS 281R Cooperative Work Experience 3
- CNS 3060 Operating Systems Theory 3
- CNS 3400 Software Engineering I 3
- MATH 1050 College Alegebra (fulfills GE requirement) 4

Specialty Elective Requirements: 17 Credits

Complete 17 credits from the following courses (minimum grade of C- required). (Must be approved by CNS Department. See CNS Advisor): 17

- CNS 2220 Visual Basic Programming
- or CNS 3220 Visual Basic Software Development
- CNS 2250 Java Programming
- or CNS 3250 Java Software Development
- CNS 2370 C++ Programming
- or CNS 3370 C++ Software Development
- CNS 239R Current Topics in Computer Science
- CNS 2550 Internet Programming
- or CNS 3550 Internet Software Development
- CNS 301R Invited Speaker Series
- CNS 3260 C#.NET Software Development
- CNS 3330 Windows Programming
- CNS 3520 Database Theory
- CNS 4190 Distributed Enterprise Software Architecture
- CNS 4410 Human Factors in Software Engineering
- CNS 4450 Analysis of Programming Languages
- EENG 2740 Digital Design I

AAS IN COMPUTER SCIENCE (CON'T) — 64 CREDITS

- PHYS 2215 Physics for Scientists and Engineers I Lab

Web Development Programmer

Students majoring in Web Development Programmer area of specialization work in areas involving web programming, server installation administration, maintenance, support, and customer service involving world wide web (WWW). Students are prepared to take industry standard certification examinations. The student is responsible for registering for and taking the required certification examinations.

Specialty Core Requirements: 31 Credits

Complete the following (minimum grade of C- required):

- CNS 1350 Object-Oriented Programming II 3
- CNS 1510 Unix Operating System 3
- CNS 2300 Discrete Structures I 3
- CNS 2400 Object-Oriented Data Structures 3
- CNS 2550 Internet Programming
- or CNS 3550 Internet Software Development 3
- CNS 2610 Network Administration
- or CNS 2630 Network Management
- or CNS 2640 Router Management 3
- CNS 3060 Operating Systems Theory 3
- CNS 3510 Unix System Administration 3
- CNS 3660 Web Server Administration and Programming 3
- MATH 1050 College Alegebra (fulfills GE requirement) 4

Specialty Elective Requirements: 11 Credits

Complete 11 credits from the following courses (minimum grade of C- required). (Must be approved by CNS Department. See CNS Advisor): 11

- ART 1120 2D Design
- CNS 2220 Visual Basic Programming
- or CNS 3220 Visual Basic Software Development
- CNS 2250 Java Programming
- or CNS 3250 Java Software Development
- CNS 2370 C++ Programming
- or CNS 3370 C++ Software Development
- CNS 3520 Database Theory
- CNS 3610 Advanced Network Administration
- or CNS 3630 Advanced Network Management
- CNS 3670 Network Programming
- CNS 3690 Advanced Topics in Data Communications
- CNS 4610 TCP/IP Internet Architecture
- MCT 1110 Multimedia Essentials I
- MCT 1210 Multimedia Essentials II
- PHYS 2215 Physics for Scientists and Engineers I Lab

AS PRE MAJOR IN COMPUTER SCIENCE — 64 CREDITS

General Education Requirements: 39 Credits

- ENGL 1010 Introduction to Writing 3
- ENGL 2020 Intermediate Writing: Science/Technology 3

Complete one of the following: 3

- MATH 1030 Quantitative Reasoning (recommended for Humanities or Arts majors)
- MATH 1040 Introduction to Statistics (recommended for Social Science majors)
- MATH 1050 College Algebra (recommended for Business, Education, Science, and Health Professions majors)

Complete one of the following: 3

- HIST 1700 American Civilization
- HIST 2700 US History to 1877
- and HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:

- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness
- or PES 1097 Fitness for Life 2

Distribution Courses

- COMM 1020 Public Speaking (recommended) 3
- COMM 2110 Interpersonal Communication (recommended) 3
- PHYS 2210 Physics for Scientists & Engineers I* 4
- PHYS 2215 Physics for Scientists and Engineers I Lab* 1
- PHYS 2220 Physics for Scientists & Engineers II* 4
- PHYS 2225 Physics for Scientists and Engineers II Lab 1
- Biology 3
- Fine Arts Distribution 3

AS PRE MAJOR IN COMPUTER SCIENCE (CON'T) — 64 CREDITS

Discipline Core Requirements: 25 Credits

- CNS 1250 Object-Oriented Programming I* 3
- CNS 1350 Object-Oriented Programming II* 3
- CNS 1380 Assembly Language and Computer Architecture* 3
- CNS 2300 Discrete Structures I* 3
- CNS 2400 Object-Oriented Data Structures* 3
- MATH 1210 Calculus I* 5
- MATH 1220 Calculus II* 5

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 UVSC.
4. Completion of GE and specified departmental requirements.

Note:
*Minimum grade of "C-" required.

BS IN COMPUTER SCIENCE — 123 CREDITS

General Education Requirements: 41 Credits

- ENGL 1010 Introduction to Writing 3
- ENGL 2020 Intermediate Writing: Science and Technology 3
- MATH 1210 Calculus I* 5

American Institutions: Complete one of the following: 3

- HIST 1700 American Civilization
- HIST 2700 US History to 1877
- and HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:

- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness
- or PES 1097 Fitness for Life 2

Distribution Courses

- COMM 1020 Introduction to Public Speaking* 3
- COMM 2110 Interpersonal Communication* 3
- Fine Arts Distribution (choose from list) 3
- Biology (choose from list) 3
- PHYS 2210 Physics for Scientists and Engineers I* 4
- PHYS 2215 Physics for Scientists and Engineers I Lab* 1
- PHYS 2220 Physics for Scientists and Engineers II* 4
- PHYS 2225 Physics for Scientists and Engineers II Lab* 1

Discipline Core Requirements: 40 Credits

Minimum grade of C- required in these courses with a combined GPA of 2.5 or higher.

- CNS 1250 Object-Oriented Programming I 3
- CNS 1350 Object-Oriented Programming II 3
- CNS 1380 Assembly Language and Computer Architecture 3
- CNS 1510 Unix Operating System 3
- CNS 2300 Discrete Structures I 3
- CNS 2400 Object-Oriented Data Structures 3
- CNS 2600 Fundamentals of Data Communications 3
- CNS 301R Invited Speaker Series 1
- CNS 3060 Operating Systems Theory 3
- CNS 3240 Introduction to Computational Theory 3
- CNS 3690 Advanced Topics in Data Communications 3
- MATH 1220 Calculus II 5
- MATH 2040 Principles of Statistics 4

Specialty Core Requirements: 42 Credits

Complete one of the following emphases (see detail below):

- Computer Engineering 42
- or Computer Networking 42
- or Computer Science 42
- or Software Engineering 42

Graduation Requirements:

1. Completion of a minimum of 123 semester credits, with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.5 or above.
3. Residency hours—minimum of 30 credit hours through course attendance at UVSC. 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 CNS Department courses.
4. All transfer credit must be approved in writing by UVSC.

BS IN COMPUTER SCIENCE (CON'T) — 123 CREDITS

5. No more than 80 semester hours and no more than 20 hours in CNS 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.

Note:
* Minimum grade of C- required in these courses with a combined GPA of 2.5 or higher.

Computer Engineering

This program is designed to prepare students for careers in the many areas of computer science requiring a knowledge of computer systems hardware, software, device drivers, and peripheral devices. Computer Engineers have strong technical skills and an understanding of and ability to work with both computer hardware and software that are scientific and technical in nature. The degree is designed to prepare students for employment opportunities in the computer industry. Areas of employment include: computer hardware design, systems design, device driver programming, software rapid application development, and software/hardware maintenance.

Students are prepared to take industry standard programming certification examinations. The student is responsible for registering for and taking the required certification examinations.

Specialty Core Requirement: 26 Credits

Minimum grade of C- required in these courses with a combined GPA of 2.5 or higher.

- CNS 4260 Digital System Simulation 3
- CNS 4380 Advanced/High-Performance Computer Architecture 3
- CNS 489R Undergraduate Research Project 3
- EENG 2740 Digital Design I 4
- EENG 2750 Circuit Theory 4
- EENG 3740 Digital Design II 3
- EENG 3750 Signals and Systems I 3
- EENG 3770 Signals and Systems II 3

Specialty Elective Requirements: 16 Credits

Complete 16 credits from the following. (minimum of 6 credits must be EENG; minimum of 3 credits must be CNS) (Maximum grade of C- required in these courses with a combined GPA of 2.5 or higher.): 16

- CNS 3400 Software Engineering I
- CNS 3520 Database Theory
- CNS 3670 Network Programming
- CNS 4470 Artificial Intelligence
- CNS 4510 Operating Systems Design and Simulation
- EENG 4730 Embedded Systems
- EENG 4750 Digital Signal Processing
- EENG 4760 Electronic Systems

Computer Networking

This program is designed to prepare students for employment opportunities in the fields of local area networks, Internet networking, Intranet networking, data communications, groupware, network management, world wide web servers, network customer support, and network maintenance. Students are prepared to take industry standard networking certification examinations. The student is responsible to register for and take the required certification examinations.

Specialty Core Requirements: 24 Credits

Minimum grade of C- required in these courses with a combined GPA of 2.5 or higher.

- CNS 3250 Java Software Development 3
- CNS 3510 Unix System Administration 3
- CNS 3520 Database Theory 3
- CNS 3550 Internet Software Development 3
- CNS 3670 Network Programming 3
- CNS 4610 TCP/IP Internet Architecture 3
- CNS 4650 Directory-Based Networks 3
- CNS 4670 Undergraduate Research Project — Networking Specialization 3

Specialty Elective Requirements: 18 Credits

Complete 18 credits from the following (minimum of six credits must be 3000 or 4000 level). (Minimum grade of C- required in these courses with a combined GPA of 2.5 or higher.): 18

- CNS 2610 Network Administration
- CNS 2630 Network Management
- CNS 2640 Router Management
- CNS 2650 Fundamentals of Voice and Data Cabling
- CNS 3220 Visual Basic Software Development
- CNS 3260 C#.NET Software Development
- CNS 3370 C++ Software Development
- CNS 3610 Advanced Network Administration

BS IN COMPUTER SCIENCE (CON'T) — 123 CREDITS

- CNS 3630 Advanced Network Management
- CNS 3660 Web Server Administarion and Programming
- CNS 4190 Distributed Enterprise Software Architecture
- CNS 4470 Artificial Intelligence
- CNS 481R Internship Work Experience (Maximum of 3 hours)
- CNS 479R Advanced Current Topics in Networking
- EENG 2740 Digital Design I
- MATH 2210 Calculus III
- MATH 2270 Linear Algebra

Computer Science

The Computer Science area of specialization is designed to prepare students for employment opportunities in the fields of complex algorithms involved in designing and developing application programs or systems programs, software engineering, rapid application development, and software maintenance. Students are prepared to take industry standard programming certification examinations. The student is responsible for registering for and taking the required certification examinations.

Specialty Core Requirements: 30 Credits

Minimum grade of C- required in these courses with a combined GPA of 2.5 or higher.

- CNS 3220 Visual Basic Software Development 3
- or CNS 3250 Java Software Development
- or CNS 3260 C#.NET Software Development
- CNS 3310 Introduction to Algorithms 3
- or CNS 3320 Numerical Software Engineering
- CNS 3400 Software Engineering I 3
- CNS 3490 Compilers I 3
- CNS 3520 Database Theory 3
- CNS 4380 Advanced/High-Performance Computer Architecture 3
- CNS 4450 Analysis of Programming Languages 3
- CNS 4470 Artificial Intelligence 3
- CNS 4490 Compilers II 3
- CNS 4510 Operating Systems Design and Simulation 3

Specialty Elective Requirements: 12 Credits

Complete 12 credits from the following. (Minimum grade of C- required in these courses with a combined GPA of 2.5 or higher.): 12

- CNS 3330 Windows Programming
- CNS 3370 C++ Software Development
- CNS 3540 Game Programming
- CNS 3550 Internet Software Development
- CNS 3660 Web Server Administration and Programming
- CNS 4230 Software Testing and Quality Engineering
- CNS 4400 Software Engineering II
- CNS 4410 Human Factors in Software Engineering
- EENG 2740 Digital Design I
- MATH 2270 Linear Algebra

Software Engineering

The Software Engineering area of specialization is designed to prepare students for employment opportunities in the fields of systems analysis, design, and implementation, applications programming, and software maintenance. Students are prepared to take industry standard programming certification examinations. The student is responsible to register for and take the required certification examinations.

Specialty Core Requirements: 24 Credits

Minimum grade of C- required in these courses with a combined GPA of 2.5 or higher.

- CNS 3220 Visual Basic Software Development 3
- or CNS 3250 Java Software Development
- or CNS 3260 C#.NET Software Development
- CNS 3400 Software Engineering I 3
- CNS 3520 Database Theory 3
- CNS 4230 Software Testing and Quality Engineering 3
- CNS 4400 Software Engineering II 3
- CNS 4410 Human Factors in Software Engineering 3
- CNS 4450 Analysis of Programming Languages 3
- CNS 4550 Software Engineering III 3

Specialty Elective Requirements: 18 Credits

BS IN
COMPUTER SCIENCE (CON'T) 123 CREDITS

Complete 18 credits from the following (maximum of three credits may be math). (Maximum grade of C- required in these courses with a combined GPA of 2.5 or higher.): 18

- CNS 3670 Network Programming
- CNS 4190 Distributed Enterprise Software Architecture
- CNS 4260 Digital System Simulation
- CNS 4380 Advanced/High-Performance Computer Architecture
- CNS 439R Advanced Current Topics in Computer Science
- CNS 4470 Artificial Intelligence
- CNS 4510 Operating Systems Design and Simulation
- CNS 481R Internship Work Experience (Maximum of 3 hours)
- MATH 2210 Calculus III
- MATH 2270 Linear Algebra
- MATH 2280 Ordinary Differential Equations

BA/BS IN
INTEGRATED STUDIES 124 CREDITS

The following Integrated Studies emphases are available (see the Integrated Studies section of this catalog for complete degree requirement listings):

- Computer Networking
- Computer Science

COOPERATIVE EDUCATION/ INTERNSHIP

A Cooperative Education or Internship course is highly recommended for majors. College credit is granted for paid work experience through the Coop/Internship Program. The department provides lower division Coop and upper division internship courses. Contact the Accounting Career and corporate manager, John Wilson 863-6307, for further information regarding Cooperative Education/Internship opportunities.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

CNS 1000
Introduction to the Science of Computing
3:3:0 Su, F, Sp

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.

CNS 1010
Survey of Operating Systems
1:1:0 F, Sp

Covers operating system concepts which are necessary for maintaining and using computer systems. Topics include disk, file, and directory structures; installation and setup; resource allocation; optimization, and configuration; system security; and other related topics.

CNS 1250
Object-Oriented Programming I
3:3:0 Su, F, Sp

- Prerequisite: MAT 0990. CNS 1000 strongly recommended

Introduces concepts of object-oriented programming. Presents tools, structure, syntax, and basic OOP design techniques for designing and developing well-formed programs. Studies concepts such as classes, objects, methods, fields, datatypes, control constructs, data I/O, exception handling, and class libraries.

CNS 129R
Programming Language—Other
3:3:0 On Sufficient Demand

- Prerequisite: Varies depending on language offered

Introduces and explores advanced state-of-the-art programming languages and concepts. Investigates language specific syntax, semantics, libraries, the integrated development environment, and debugging techniques. A maximum of three (3) credits will count towards graduation; however, with prior written CNS Department approval more than three (3) credits may be counted towards graduation.

CNS 1350
Object-Oriented Programming II
3:3:0 Su, F, Sp

- Prerequisite: CNS 1250

Introduces concepts of object-oriented programming including classes and objects, friends, operator overloading, stream I/O, dynamic memory allocation, polymorphic functions, and basic use of standard library components. Offers development of basic graphical user interfaces. Introduces sorting, data structures, class and object reuse, and program projects. Uses programming assignment specifications, design, implementation, and testing.

CNS 1380
Assembly Language and Computer Architecture
3:3:0 Su, F, Sp

- Prerequisite: CNS 1250

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.

CNS 1510
UNIX Operating System
3:3:0 Su, F, Sp

- Prerequisite: CNS 1000 or CNS 1250

Introduces the UNIX Operating System using the popular Linux OS. The student will be introduced to the file system, Linux administration, shell scripts, OS utilities, and program features and uses. Aids the student in the development, understanding, and working knowledge of the details of the Linux Operating System with single and multiple processor computers, memory organization, disk architectures, demand paged virtual memory, computer systems organization, architecture, operating systems, and systems software.

CNS 2030
Introduction to Data Communication
3:3:0 F, Sp

- Prerequisite: (ISYS 1100 or ISYS 1120), MAT 0990

For students not majoring in Computing and Networking Sciences. Surveys data communication technology. Studies communication protocols, transmission systems, media, modems, software, and hardware interfacing.

CNS 2220
Visual Basic Programming
3:3:0 On Sufficient Demand

- Prerequisite: CNS 1250

For those with previous programming language experience. Presents Microsoft Visual Basic. Emphasizes Rapid Application Development (RAD) methodologies using Visual Basic. Covers event-driven software, visual and non-visual components. Introduces database interfacing and connectivity and multi-tier client/server designs.

CNS 2250
Java Programming
3:3:0 On Sufficient Demand

- Prerequisite: CNS 1250

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.

CNS 2300
Discrete Structures I
3:3:0 Su, F, Sp

- Prerequisite: CNS 1250, MATH 1050

For CNS Majors. Covers algebraic structures applied to computer programming. Includes logic, sets, relations, graphs, trees, and Boolean algebra.

CNS 2370
C++ Programming
3:3:0 On Sufficient Demand

- Prerequisite: CNS 1250

Covers practical C++ programming in-depth, including advanced operator overloading and memory management, proper use of exceptions, defensive programming techniques, automated testing, multiple inheritance, advanced memory management, proper use of the standard template library, and programming.

CNS 239R
Current Topics in Computer Science
1-3:1-3:0 On Sufficient Demand
• Prerequisite: Department approval
Discusses emerging technologies and state-of-the-art topics of current interest in computer science. Varies each semester depending upon the state of technology. A maximum of three hours may be counted towards graduation without prior written CNS Department approval.

CNS 2400
Object-Oriented Data Structures
3:3:0 Su, F, Sp
• Prerequisite: CNS 1350
Introduces data structures using an object-oriented programming language, and paradigm. Studies data abstraction as a design tool. Includes advanced arrays, records, dynamic data structures, searching and sorting, vectors, trees, linked lists, and graphs. Uses file I/O to store data structures. Discusses algorithm metrics.

CNS 2550
Internet Programming
3:3:0 On Sufficient Demand
• Prerequisite: CNS 2250
Introduces programming for the Internet and how to work with various graphic formats, sound formats, animation formats, and various format combinations.

CNS 2600
Fundamentals of Data Communications
3:3:0 F, Sp
• Prerequisite: CNS 1250, (CNS 1510, CNS 1380, MATH 1210, PHYS 2210 recommended)
Presents rigorous introduction to data communications technology for CNS majors. Includes theory of data communications protocols; theory and design of transmission systems; transmission media and communication software. Includes lab assignments to be completed outside of lecture.

CNS 2610
Network Administration
3:3:0 Su, F, Sp
• Prerequisite: CNS 1000 or CNS 1250
For CNS majors. Presents the NetWare network operating system and the concepts of how to manage a local area network. Covers network operating system fundamentals, login scripting, volume and subdirectory structure and management, network security, and network printing.

CNS 2630
Network Management
3:3:0 F, Sp
• Prerequisite: CNS 1000 or CNS 1250 or CNS 2030
Introduces operation management of Network Operating Systems using Microsoft Windows. Covers the use and configuring of Windows XP Professional, installing and configuring Windows XP services.

CNS 2640
Router Management
3:3:0 On Sufficient Demand
• Prerequisite: CNS 1000 or CNS 1250
Introduces configuration and management of Cisco routers. Includes networking basics, Ethernet switching, router hardware basics, IP and IPX routing theory, router commands, VLANs, access lists, security and WAN link configuration.

CNS 2650
Fundamentals of Voice and Data Cabling
3:3:0 F
• Prerequisite: CNS 1000 or CNS 1250 or TCT 1210 strongly recommended
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, types of media and cabling, physical and logical networks, as well as signal transmission.

CNS 279R
Current Topics in Networking
1-3:1-3:0 On Sufficient Demand
• Prerequisite: Department approval
Provides exposure to emerging technologies and state-of-the-art topics of current interest in networking. Varies each semester depending upon the state of technology. A maximum of three hours may be counted towards graduation without prior written CNS Department approval.

CNS 281R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: 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.

CNS 291R
Independent Study
1-6:0-6:0-18 On Sufficient Demand
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.

CNS 296R
CNS Seminar
1-3:0-3:0-12 On Sufficient Demand
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 CNS Department approval.

CNS 301R
Invited Speaker Series
1:1:0 F, Sp
Guest speakers lecture on current topics in computer science, computer engineering, and electrical engineering. May be repeated for a maximum of one credit toward graduation.

CNS 3060
Operating Systems Theory
3:3:0 F
• Prerequisite: CNS 1380 and CNS 1510 and CNS 2400
Introduces underlying theory of basic concepts of operating systems. Illustrates use of processes, tasks, threads, scheduling, queues, blocking, deadly embrace, etc.

CNS 3220
Visual Basic Software Development
3:3:0 F
• Prerequisite: CNS 2400
For those with previous programming language experience. Presents Microsoft Visual Basic. Emphasizes Rapid Application Development (RAD) methodologies using Visual Basic. Covers event-driven software, visual and non-visual components. Introduces database interfacing and connectivity and multi-tier client/server designs.

CNS 3240
Introduction to Computational Theory
3:3:0 F, Sp
• Prerequisite: CNS 2400
Presents concepts of formal (programming) language definition, Turing machines, finite automata, regular expressions, grammars, context-free languages, and computability.

CNS 3250
Java Software Development
3:3:0 F, Sp
• Prerequisite: CNS 2400
Covers features of the Java Programming Language, emphasizing mastery of core Java packages, java.lang, java.io, java.util, and other commonly-used library packages. Topics include abstract classes, interfaces, inner classes, JavaBeans, I/O operations in depth, collections and algorithms, reflection, threads, the Java Event Model, basic Swing Components, and XML processing. Introduces common idioms and design patterns. Emphasizes accepted software engineering "best practices."

CNS 3260
C#.NET Software Development
3:3:0 F, Sp
• Prerequisite: CNS 2400
Introduces the C# programming language and the .NET Framework that the programming language is within. 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.

CNS 3310
Introduction to Algorithms
3:3:0 F
• Prerequisite: CNS 2400
Introduces development and mathematical analysis of fundamental computer algorithms. Topics include: Divide and conquer and greedy algorithms, dynamic programming, backtracking, branch and bound and NP-completeness.

CNS 3320
Numerical Software Engineering
3:3:0 Sp
• Prerequisite: CNS 2400, MATH 1220, (MATH 2270 recommended)
Gives students mastery of 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.

CNS 3330
Windows Programming
3:3:0 F
• Prerequisite: CNS 1350
Develops concepts required for developing application software in a Microsoft MFC-based environment. Includes elements of Windows programming, user interface design, application frameworks, resource workshop, windows libraries, and application development on a variety of Windows platforms. Requires programming Windows applications using C++and low-level Graphical User Interface (GUI) application frameworks.

CNS 3370
C++ Software Development
3:3:0 Sp
• Prerequisite: CNS 2400
Prepares students for 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, multiple inheritance, advanced memory management, generic programming with templates, containers, iterators, algorithms, and function objects. Introduces library development, client-server concepts, common idioms and design patterns, and other advanced topics. Emphasizes accepted software engineering "best practices."

CNS 339R
Advanced Programming Language-Other
3:3:0 On Sufficient Demand
• Prerequisite: Varies depending on language offered
Introduces and explores advanced state-of-the-art programming languages and concepts. Investigates topics using language specific analysis, design, Rapid Application Development (RAD), implementation, and testing. Explores language specific syntax, semantics, libraries, the integrated development environment, and debugging techniques. Demonstrates language concepts by developing and writing programs. A maximum of three (3) credits will count towards graduation; however, with prior written CNS Department approval more than three (3) credits may be counted towards graduation.

CNS 3400
Software Engineering I
3:3:0 Su, Sp
• Prerequisite: CNS 2400
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.

CNS 3490
Compilers I
3:3:0 F
• Prerequisite: CNS 3400
Introduces the basic and theoretical concepts of compiler theory design. Students will work on the design of a compiler to be implemented in Compilers II.

CNS 3510
UNIX System Administration†
3:3:0 F, Sp
• Prerequisite: CNS 1510 or ISYS 1420
Introduces Unix System Administration concepts such as installation and configuration of UNIX servers, user accounts, peripherals, X-windows, communications, daemons, and security.

CNS 3520
Database Theory
3:3:0 Su, F, Sp
• Prerequisite: CNS 2400
For Computing and Networking Sciences (CNS) majors. Introduces theory, concepts, architecture, and use of database management systems (DBMS). Presents the relational and object-oriented database models used in both local and client/server databases. Discusses the Structured Query Language (SQL), database design, normalization theory, and relational calculus relating to database management systems.

CNS 3540
Game Programming
3:3:0 F
• Prerequisite: CNS 2400; CNS 3370 recommended.
Presents programming techniques for two and three dimensional graphics programming using DirectX, OpenGL, and/or similar graphics platform. Includes application of artificial intelligence concepts to game programming. Also includes use of network programming techniques for development of mulit-player games.

CNS 3550
Internet Software Development
3:3:0 Su, F, Sp
• Prerequisite: CNS 3250
Covers Internet programming concepts and sophisticated applications for today's World Wide Web. Includes client side and server side code development.

CNS 3610
Advanced Network Administration
3:3:0 F, Sp
• Prerequisite: CNS 2610
Studies common Local Area Network (LAN) topologies and troubleshooting techniques used by network administrators to establish and manage computer networks. Includes advanced study of the NetWare network operating system. Requires a research paper based on an advanced data communications topic.

CNS 3630
Advanced Network Management
3:3:0 F, Sp
• Prerequisite: CNS 2630
Studies advanced Local Area Network (LAN) technologies and troubleshooting techniques used by Network Administrators. Includes advanced study of Windows 2000 Server. Requires a project and presentation based on advanced network management skill.

CNS 3660
Web Server Administration and Programming
3:3:0 Sp
• Prerequisite: CNS 3550
Covers web programming techniques such as CGI, Java servlets, web-based database applications, and XML.

CNS 3670
Network Programming
3:3:0 Sp
• Prerequisite: CNS 3250 and CNS 3690
Introduces background information including NetBIOS, NetBEUI, Mailslots, Named Pipes, and Redirector. Presents Berkeley Socket theory and the details of Windows sockets. Presents theory and practical application of network protocols. Introduces CORBA and the various as concepts of ORB's and the IIOP protocol.

CNS 3690
Advanced Topics in Data Communications
3:3:0 F, Sp
• Prerequisite: CNS 2600
A continuation of CNS 2600 Fundamentals of Data Communications, focusing on the upper half of the OSI and Internet models. Covers internet protocols; routing theory; transport protocols; network application interfaces; presentation formatting; information theory and compression; network security and encryption; network management systems and standards; and other emerging technologies as time permits. Includes lab assignments to be completed outside of lecture.

CNS 4190
Distributed Enterprise Software Architecture
3:3:0 F
• Prerequisite: CNS 3260, CNS 3520, and CNS 3690
Examines enterprise development using distributed software architectures and frameworks. Explores leading distributed systems standards for platform, language, and data independence. Focuses on server-side development taking into consideration componentization, transaction management, persistence, and security. Uses Java enterprise servers, the EJEE architecture, server pages, the Common Object Request Broker Architecture (CORBA), and XML standards to develop enterprise-level distributed object system capable of secure Internet transaction processing.

CNS 4230
Software Testing and Quality Engineering
3:3:0 F
• Prerequisite: CNS 3400 and MATH 2040
Provides a comprehensive exploration of strategies for testing computer 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.

CNS 4260
Digital System Simulation
3:3:0 Sp
• Prerequisite: CNS 3060, MATH 2040
Introduces simulation of the methods used to study the behavior of digital systems. Includes the study of discrete simulation models, queuing theory, the generation of random numbers and varieties, and stochastic processes. Compares popular simulation languages and commercially available simulation tools. Describes approaches to design of simulation experiments and the analysis of experimental data.

CNS 4330
Advanced Windows Programming
3:3:0 Sp
• Prerequisite: CNS 3330
Introduces and explores advanced programming concepts using Microsoft's Visual Studio C++ programming environment. Presents the concepts developed for DLL's, MFC, OCX, ATL, and COM. Investigates the Model-View-Control application frameworks for developing complex Windows applications.

CNS 4380
Advanced/High-Performance Computer Architecture
3:3:0 F
• Prerequisite: CNS 3060
Presents theory and concepts of high-performance computer architectures. Includes digital logic, buses, registers, ALU's, control units, pipelining, parallelism, DASD's, SASD's, RAID, caching, instruction-sets, memory hierarchy, multiprocessing, interconnection via networks.

CNS 439R
Advanced Current Topics in Computer Science
1-3:0-3:0-12 On Sufficient Demand
• Prerequisite: Department approval
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 three hours may be counted towards graduation without CNS Department approval.

CNS 4400
Software Engineering II
3:3:0 F
• Prerequisite: CNS 3400
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 approach such as object-oriented development as applied to a realistic organizational systems problem. Explores requirements definition and modeling, analysis modeling including prototyping, functional and nonfunctional requirements specification, legacy systems, design patterns, and design modeling.

CNS 4410
Human Factors in Software Engineering
3:3:0 Sp
• Prerequisite: CNS 3220 or CNS 3250 or CNS 3370
Studies issues of software analysis, design, and development for and from the perspective of computer-human interaction. Emphasizes design of the computer-human interface, effective presentation of data via graphics, color, text, sound, etc. to the user. Uses development tools for effective graphic presentation, the elements of effective information presentation to users.

CNS 4450
Analysis of Programming Languages
3:3:0 F
• Prerequisite: CNS 3240
Offers the mature student an in-depth understanding of the design and implementation of programming languages. Criteria for evaluating programming languages are established as a context for comparing both traditional and current popular languages. Topics include the evolution of programming languages, syntax analysis, the concept of binding, type checking, static and dynamic scoping, control structures, subprograms and parameter passing methods, concurrency, and exception handling. 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 LISP, Scheme, ML, or Haskell.

CNS 4470
Artificial Intelligence
3:3:0 F
• Prerequisite: CNS 3240, CNS 3520, and MATH 1220
Presents theory, organization, concepts, and principles of artificial intelligence methodologies including neural networks, expert systems, machine learning algorithms, and genetic algorithms.

CNS 4480
Digital Image Processing and Computer Vision
3:3:0 Sp
• Prerequisite: CNS 2400, CNS 3690, MATH 1220. MATH 2270 strongly recommended.
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.

CNS 4490
Compilers II
3:3:0 Sp
• Prerequisite: CNS 3240, CNS 3490, CNS 4380, and (CNS 4450 recommended)
Studies theory, analysis and design of class developed compiler "Expresso". Discusses lexical scanning, parsing, production, and execution of compilers. The student will design and make operational their own compiler.

CNS 4510
Operating Systems Design and Simulation
3:3:0 Sp
• Prerequisite: CNS 4380
Presents architecture, principles concepts, design, implementation, and simulation of modern operating systems. Studies architecture, design, and simulation of an operating system. Discusses queuing, scheduling, resource allocation, and memory management.

CNS 4550
Software Engineering III
3:3:0 Sp
• Prerequisite: CNS 4400
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.

CNS 4610
TCP/IP Internet Architecture
3:3:0 F
• Prerequisite: CNS 3690
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.

CNS 4650
Directory-Based Networks
3:3:0 F
• Prerequisite: CNS 1510, (CNS 3610 or CNS 3630), CNS 3690
Presents the structure, design, partitioning and replication strategies for network directory ser-

vices through a combination of theory and programming exercises. Covers the X.500 and LDAP standards, and implementation including NDS, ADS, and OpenLDAP.

CNS 4670
Undergraduate Research Project—Networking Specialization
3:3:0 Sp
• Prerequisite: CNS 4610, CNS 4650
Senior-level, capstone project experience course. Students produce a system suitable for presentation and defense and develop complete system requirements analysis, system design, and configuration testing and benchmarks. Includes detailed written documentation of the project and a public presentation detailing project.

CNS 479R
Advanced Current Topics in Networking
1-3:0-3:0-12 On Sufficient Demand
• Prerequisite: Department Approval
Provides exposure to emerging technologies and topics of current interest in computer networking and data communications. Varies each semester depending upon the state of technology. A maximum of three hours may be counted towards graduation without prior written CNS Department approval.

CNS 481R
Internship Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: Department approval
Provides opportunity to use work experience to add to educational background and academic experience. A maximum of three hours may be counted towards graduation without prior written CNS Department approval.

CNS 489R
Undergraduate Research Project
2-6:2-6:0 On Sufficient Demand
• Prerequisite: Department approval
Combines and integrates concepts, methodologies, and skills developed in previous CNS 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 three hours may be counted towards graduation without prior written CNS Department approval.

CNS 491R
CNS Independent Study
1-6:0-6:0-18 On Sufficient Demand
• Prerequisite: Prior written CNS Department Chair approval
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 three hours may be counted towards graduation without prior written CNS Department approval.

CNS 496R
CNS Seminar
1-3:0-3:0-12 On Sufficient Demand
Presents current state-of-the-art and/or best-practices topics in a seminar format. A maximum of three (3) credits will count towards graduation; however, with prior written CNS Department approval more than three (3) credits may be counted towards graduation.

COMPUTER INFORMATION TECHNOLOGY AND EDUCATION

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School of Computing, Engineering and Technology
Dean: Thomas McFarland
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Information technology is at the heart of today's business. Companies are constantly looking to hire technology-savvy college graduates who will help them achieve competitive advantage in this new century. The Computer Information Technology and Education Department (CITE) teaches students how to be productive team players in today's business world through a balanced offering of certificates, associate, and bachelor's degrees in Information Technology.

The mission of the Computer Information Technology and Education Department is to provide technologically progressive courses and services that are responsive to our stakeholder community and designed to enhance the competencies of our students in applying information technology to meet business and education needs, thus preparing them for successful employment and continuing education.

Our degree programs are based on national curriculum models developed by Information Technology professionals and educators. The Information Technology curriculum is competency based and reflects program requirements promulgated by the Accreditation Board for Engineering and Technology (ABET).The Business/Marketing Education curriculum is based on the accreditation requirements of the National Council for Accreditation of Teacher Education (NCATE) and Utah State Office of Education guidelines. Our local advisory committees provide regular guidance in tailoring the curriculum to local needs.

Our courses are taught by dedicated faculty with real-world experience in the use of computers, networks, security, databases, applications, and other information technologies. The faculty help students to be competent in using state-of-the-art technology, to be critical thinkers, to practice excellent communication skills, to develop teamwork and interpersonal skills, and to be life-long learners.

PROGRAMS

The Computer Information Technology and Education Department offers a one-year Certificate, two-year Associate in Applied Science (AAS) degrees, Associate in Science (AS) degrees, a Bachelor's Degree in Information Technology, and a Bachelor's Degree in Business/Marketing Education.

The Bachelor of Science in Information Technology includes four areas of emphasis: Administrative Information Management, E-Commerce, Information Technology, and Training Design and Development. The Administrative Information Management emphasis provides training for students to be employed in such areas as administrative information managers, office managers, executive assistants, project managers, and other administrative support positions in business, industry, and government. The Information Technology/E-Commerce emphases prepare students for careers as network administrators, information security specialists, web developers, help desk consultants, database administrators, and programmer/analysts.

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 CITE Department and the School of Education. The Business/Marketing Education curriculum prepares students to teach information technology, multimedia, business, and marketing courses in the secondary schools. Secondary education teaching minors are also available in business information technology, basic business, and marketing.

A minor in Business Information Technology is available for students with any major outside the CITE Department who desire to have a stronger background in computer applications and project management.

For students interested in networking and computer security, the CITE department coordinates with the Computer Science and Networking (CNS) Department to offer the Network Specialist Certificate and the Associate in Applied Science in Computer Networking.

In addition to regular programs, the CITE Department also offers a wide variety of courses designed to provide immediate job skills, upgrade training for individuals and/or business, short term intensive training workshops, personal benefit, and development.

CERTIFICATE IN ADMINISTRATIVE SUPPORT — 31 CREDITS

Discipline Core Requirements:			29 Credits
• ISYS	105A	Basic Computer Concepts/Operating System	0.5
• ISYS	105B	Basic Internet/E-mail Applications	0.5
• ISYS	105E	Basic Presentation Applications	0.5
• ISYS	224R	Digital Communication Tools	2
• ISYS	2300	Records and Information Management	3
• ISYS	2350	Intermediate Word Processing	3
• ISYS	2360	Business Spreadsheet Applications	3
• ISYS	2370	Business Database Applications	3
• ISYS	1080	10-key Data Entry	0.5
• ACC	1150	Fundamentals of Business Math	3
• ACC	1750	Applied Accounting	
or ACC	2010	Financial Accounting	3
• ENGL	1010	Introduction to Writing	3
• MGMT	2200	Written Business Communication	3
• MGMT	2250	Job Application and Advancement Skills*	1
or MGMT	3890	Career Preparation*	
Elective Requirements:			2 Credits
Complete 2 credits from the following:			2
• MGMT	1010	Introduction to Business	
• MGMT	1060	Personal Finance	
• MGMT	2100	Personality Instruments and Business	

CERTIFICATE IN ADMINISTRATIVE SUPPORT — 31 CREDITS

- MGMT 2390 Effective Business Presentations
- ISYS 183R IAAP Student Chapter
- ISYS 184R IAAP Leadership

Graduation Requirements:

1. Overall GPA of 2.0 or higher with a minimum grade of "C-" in all ISYS and business courses.
2. A minimum keyboarding skill of 40 net words per minute is required for graduation.
3. Students are responsible for completing all prerequisite courses.

Notes:
*Take near end of program.

AAS IN ADMINISTRATIVE INFORMATION SUPPORT — 64 CREDITS

General Education Requirements: 16 Credits

ENGLISH
- MGMT 2200 Written Business Communication 3

MATHEMATICS
- ACC 1150 Fundamentals of Business Math 3
- or MAT 1010 Intermediate Algebra
- or MATH 1050 College Algebra

HUMANITIES/FINE ARTS/FOREIGN LANGUAGE
- ENGL 1010 Introduction to Writing 3

SOCIAL AND BEHAVIORAL SCIENCE
- MGMT 2020 Macroeconomics
- or MGMT 3000 Organizational Behavior 3

BIOLOGY OR PHYSICAL SCIENCE
- Any approved Biology or Physical Science Distribution 3

PHYSICAL EDUCATION/HEALTH/SAFETY OR ENVIRONMENT
- Any approved Physical Education, Health, Safety or Environment Course 1

Discipline Core Requirements: 33 Credits
- ISYS 224R Digital Communication Tools 2
- ISYS 2300 Records and Information Management 3
- ISYS 2350 Intermediate Word Processing 3
- ISYS 2360 Business Spreadsheet Applications 3
- ISYS 2370 Business Database Applications 3
- ISYS 2380 Integrated Software Projects* 3
- ISYS 2450 Web Content Development 3
- ISYS 3270 Business Presentation Applications 3
- ISYS 3350 Business Desktop Publishing Applications 3
- ACC 2010 Financial Accounting 3
- or ACC 1750 Applied Accounting
- MGMT 2250 Job Application & Advancement Skills* 1
- or MGMT 3890 Career Preparation*
- MGMT 2390 Effective Business Presentations 3

Elective Requirements: 15 Credits

Choose a minimum of 15 credits from the following: 15
- ISYS 105A Basic Computer Concepts/ Operating System
- and ISYS 105B Basic Internet/E-mail Applications .
- ISYS 3360 Using Visual Basic for Applications
- or ISYS 1200 Visual Programming for Business
- ISYS 1120 Introduction to the Digital Domain
- ISYS 183R IAAP Student Chapter
- ISYS 184R IAAP Leadership
- ISYS 281R Cooperative Work Experience
- ISYS 1080 10-key Data Entry
- LEGL 3000 Business Law
- MGMT 1060 Personal Finance
- MGMT 3000 Organizational Behavior (if not counted as Social Science credit)
- MGMT 3430 Human Resource Management
- Any other pre-approved electives; see advisor for details

Graduation Requirements:

1. 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-".
2. A minimum keyboarding skill of 40 net words per minute is required for graduation.
3. Residency hours—minimum of 20 credit hours through course attendance at UVSC.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.

Notes:
Potential 4-year students need to take ACC 2010 (or 3000), MATH 1050, MGMT 2020, and MGMT 3890.
*Take near end of program

AAS IN INFORMATION TECHNOLOGY — 65 CREDITS

General Education Requirements: 17 Credits

ENGLISH
- MGMT 2200 Written Business Communication 3

MATHEMATICS
- MATH 1050 College Algebra 4
- or Any higher Mathematics Course

HUMANITIES/FINE ARTS/FOREIGN LANGUAGE
- Any approved Humanities, Fine Arts, or Foreign Language Distribution Course 3

SOCIAL AND BEHAVIORAL SCIENCE
- MGMT 2020 Macroeconomics (fulfills Social/ Behavioral Science) 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: 33 Credits
- ISYS 1120 Introduction to the Digital Domain 3
- ISYS 1200 Visual Programming for Business 4
- ISYS 1420 Systems Architecture 3
- ISYS 2050 Database Fundamentals 3
- ISYS 2200 Advanced Visual Programming for Business 3
- ISYS 2490 Computer Help Desk Consulting 3
- CNS 2030 Introduction to Data Communication 3
- CNS 2630 Network Management 3
- ISYS 281R Cooperative Work Experience 3
- ACC 3000 Financial, Managerial and Cost Accounting Concepts 4
- MGMT 2250 Job Application and Advancement Skills* 1
- or MGMT 3890 Career Preparation* 2

Elective Requirements: 15 Credits

Choose a minimum of 15 credits from the following: 15
- ISYS 2450 Web Content Development
- ISYS 3370 Business Graphics Applications
- ISYS 3410 Database Systems
- ISYS 3420 Internet Application Development I
- ISYS 3460 Web Server Administration
- MCT 1110 Multimedia Essentials I

Graduation Requirements:

1. Completion of a minimum of 65 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 course attendance at UVSC.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses

Note:
*Take MGMT 2250 or MGMT 3890 near end of program.

AS PRE MAJOR IN INFORMATION TECHNOLOGY — 62 CREDITS

General Education Requirements: 36 Credits
- ENGL 1010 Introduction to Writing 3
- ENGL 2010 Intermediate Writing—Humanities/Social Science
- or ENGL 2020 Intermediate Writing—Science/ Technology 3
- MATH 1050 College Algebra 4

Complete one of the following: 3
- HIST 1700 American Civilization
- ECON 1740 US Economic History
- HIST 2700 US History to 1877
- and HIST 2710 US History since 1877
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness
- or PES 1097 Fitness for Life 2

Distribution Courses
- MGMT 2020 Macroeconomics (fulfills Social/ Behavioral Science) 3
- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution 3
- Fine Arts Distribution 3

Specialty Core Requirements: 18 Credits
- ISYS 1120 Introduction to the Digital Domain 3
- ISYS 2050 Database Fundamentals 3
- ISYS 2450 Web Content Development 3
- MGMT 2200 Written Business Communication 3
- MGMT 2010 Microeconomics 3
- CNS 2030 Introduction to Data Communication 3

Elective Requirements: 8 Credits
- Choose 8 credit hours of electives from: ISYS, CNS, MCT, ACC, LEGL, or MGMT prefixes (See advisor for assistance with choices) 8

Graduation Requirements:

1. Completion of a minimum of 62 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 UVSC.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.

AS PRE MAJOR IN ADMINISTRATIVE INFORMATION MANAGEMENT — 61 CREDITS

General Education Requirements: 36 Credits
- ENGL 1010 Introduction to Writing 3
- ENGL 2010 Intermediate Writing—Humanities/Social Science
- or ENGL 2020 Intermediate Writing—Science/ Technology 3
- MATH 1050 College Algebra 4

Complete one of the following: 3
- HIST 2700 US History to 1877
- and HIST 2710 US History since 1877
- HIST 1700 American Civilization
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health and Wellness
- or PES 1097 Fitness for Life 2

Distribution Courses
- MGMT 2020 Macroeconomics (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: 19 Credits
- ISYS 2350 Intermediate Word Processing 3
- ISYS 2360 Business Spreadsheet Applications 3
- ISYS 2370 Business Database Applications 3
- ISYS 3270 Business Presentation Applications 3
- ACC 2010 Financial Accounting 3
- or ACC 3000 Financial, Managerial, and Cost Accounting Concepts
- MGMT 2200 Written Business Communication 3
- MGMT 2250 Job Application and Advancement Skills* 1
- or MGMT 3890 Career Preparation**

Elective Requirements: 6 Credits

Complete 6 credits from the following:** 6
- ISYS 105A Basic Computer Concepts/ Operating System
- ISYS 105B Basic Internet/E-mail Applications
- ISYS 1120 Introduction to the Digital Domain
- ISYS 183R IAAP Student Chapter
- ISYS 184R IAAP Leadership
- ISYS 224R Digital Communication Tools**
- ISYS 2300 Records and Information Management**
- ISYS 2450 Web Content Development**
- ISYS 3350 Business Desktop Publishing Applications
- ISYS 3370 Business Graphics Applications
- MGMT 2390 Effective Business Presentations**

Graduation Requirements:

1. Completion of a minimum of 61 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 UVSC.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.

Notes:

AS PRE MAJOR IN ADMINISTRATIVE INFORMATION MANAGEMENT (CON'T) 61 CREDITS

*Take near end of program.
**Potential 4-year students need to take the six electives from the following: MGMT 3890, MGMT 2390, ISYS 224R, ISYS 2300, ISYS 3350, ISYS 3370, or ISYS 2450.

BS IN BUSINESS/MARKETING EDUCATION 123 CREDITS

Matriculation Requirements:
1. Minimum ACT scores.
2. GPA of 2.75 or higher.
3. A CAAP written exam.
4. An interview directed by the Secondary Teacher Education Selection and Retention Committee.

General Education Requirements: 36 Credits

• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	3
or ENGL	2020	Intermediate Writing—Science/Technology	
• MATH	1050	College Algebra	4

Complete one of the following: 3
- HIST 1700 American Civilization
- HIST 2700 US History to 1877
- and HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:

• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health and Wellness	
or PES	1097	Fitness for Life	2

Distribution Courses

• MGMT	2020	Macroeconomics (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: 81 Credits

• EDSC	2540	Development of the Adolescent Student	2
• EDSC	3000	Educational Psychology	3
• EDSC	3050	Foundations of American Education	2
• EDSP	3400	Exceptional Students*	2
• EDSC	4200	Classroom Management I*	1
• EDSC	4250	Classroom Management II	1
• EDSC	4440	Content Area Reading and Writing	3
• EDSC	4450	Multicultural Instruction/ESL*	2
• EDSC	4550	Secondary Curriculum, Instruction and Assessment*	4
• EDSC	4850	Student Teaching, Secondary †*	8
• BUS	3700	Principles of Business/Marketing Education*	3
• BUS	4200	Methods of Teaching Keyboarding and Computer Applications*	3
• BUS	4250	Methods of Teaching Business and Marketing*	3
• BUS	4900	Business/Marketing Student Teaching Seminar	2
• ISYS	105A	Basic Computer Concepts/Operating System	0.5
and ISYS	105B	Basic Internet/E-mail Applications	0.5
or ISYS	1060	Introduction to Computer Concepts	
• ISYS	224R	Digital Communication Tools	2
• ISYS	2360	Business Spreadsheet Applications	3
• ISYS	2370	Business Database Applications	3
• ISYS	2450	Web Content Development	3
• ISYS	3270	Business Presentation Applications	3
• ISYS	3350	Business Desktop Publishing Applications	3
• ISYS	3370	Business Graphics Applications	3
• ACC	2010	Financial Accounting	3
• ACC	2020	Managerial Accounting	3
• LEGL	3000	Business Law	3
• MGMT	2200	Written Business Communication	3
• MGMT	2010	Microeconomics	3
• MGMT	3010	Principles of Management	3
• CNS	2610	Network Administration	3

Elective Requirements: 6 Credits

Complete at least 6 credits from the following: 6

• MGMT	1060	Personal Finance	
• MGMT	3600	Principles of Marketing	
• MGMT	3660	Internet Marketing	

BS IN BUSINESS/MARKETING EDUCATION (CON'T) 123 CREDITS

Graduation Requirements:
1. Completion of the 123 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 a minimum of 2.5 GPA in all discipline core and elective courses. No grade lower than a "B-" in Education and BUS courses and a "C-" in other discipline core and elective courses.
3. Residency hours: Minimum of 30 credit hours through course attendance at UVSC, 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.

Notes:
Students must pass a criminal background check at the beginning of the junior year.
Participation in PBL or DEX is highly recommended for at least one semester.
†Students should teach at least one marketing course, one business computer course, and one non-computer business course during the student teaching experience.
* Courses requiring field experience.

MINOR IN BUSINESS EDUCATION—BASIC BUSINESS 18 CREDITS

Matriculation Requirements:
1. Minimum ACT scores.
2. GPA of 2.75 or higher.
3. A CAAP written exam.
4. An interview directed by the Secondary Teacher Education Selection and Retention Committee.
5. Must be accepted into a Secondary Education major program.

Discipline Core Requirements: 18 Credits

• BUS	3700	Principles of Business/Marketing Education*	3
• BUS	4250	Methods of Teaching Business and Marketing*	3
• Advisor Approved Endorsement Courses (see Advisor for course lists). Students should receive endorsements in at least two areas.			12

Graduation Requirements:
1. Overall grade point average 2.75 or above with a minimum of 2.5 GPA in all discipline and specialty core and elective courses. No grade lower than a "B-" in Education courses and BUS courses and a "C-" in business discipline and specialty core courses.
2. Students are responsible for completing all prerequisite courses.
3. Fifty percent of the credits for the minor must be upper-division courses.

Notes:
Students must pass a criminal background check at the beginning of the junior year.
Participation in Phi Beta Lambda (PBL) or Delta Epsilon Chi (DEX) is required for one semester
Students will teach at least one business (or marketing if completing the Marketing emphasis) course during the student teaching experience.
*Courses requiring field experience.

MINOR IN BUSINESS EDUCATION—BUSINESS INFORMATION TECHNOLOGY 23 CREDITS

Matriculation Requirements:
1. Minimum ACT scores.
2. GPA of 2.75 or higher.
3. A CAAP written exam.
4. An interview directed by the Secondary Teacher Education Selection and Retention Committee.
5. Must be accepted into a Secondary Education major program.

Discipline Core Requirements: 23 Credits

• BUS	3700	Principles of Business/Marketing Education*	3
• BUS	4200	Methods of Teaching Keyboarding and Computer Applications*	3
• ISYS	224R	Digital Communication Tools	2
• ISYS	2360	Business Spreadsheet Applications	3
• ISYS	2370	Business Database Applications	3
• ISYS	3270	Business Presentation Applications	3
• ISYS	3350	Business Desktop Publishing Applications	3
• ISYS	2450	Web Content Development	3

Graduation Requirements:

MINOR IN BUSINESS EDUCATION—BUSINESS INFORMATION TECHNOLOGY (CON'T) 23 CREDITS

1. Overall grade point average 2.75 or above with a minimum of 2.5 GPA in all discipline and specialty core and elective courses. No grade lower than a "B-" in Education courses and BUS courses and a "C-" in business discipline and specialty core courses.
2. Students are responsible for completing all prerequisite courses.
3. Fifty percent of the credits for the minor must be upper-division courses.

Notes:
Students must pass a criminal background check at the beginning of the junior year.
Participation in Phi Beta Lambda (PBL) or Delta Epsilon Chi (DEX) is required for one semester; additional participation is recommended.
Students will teach at least one business (or marketing if completing the Marketing emphasis) course during the student teaching experience.
*Courses requiring field experience.

MINOR IN BUSINESS EDUCATION—MARKETING 21 CREDITS

Matriculation Requirements:
1. Minimum ACT scores.
2. GPA of 2.75 or higher.
3. A CAAP written exam.
4. An interview directed by the Secondary Teacher Education Selection and Retention Committee.
5. Must be accepted into a Secondary Education major program.

Discipline Core Requirements: 15 Credits

• BUS	3700	Principles of Business/Marketing Education*	3
• BUS	4250	Methods of Teaching Business and Marketing*	3
• MGMT	3650	Selling and Sales Management	3
• MGMT	3600	Principles of Marketing	3
• MGMT	3660	Internet Marketing	3

Elective Requirements: 6 Credits

Choose 6 credits from the following courses: 6

• MGMT	3170	Entrepreneurship
• MGMT	3220	Retail Management
• MGMT	3350	International Marketing
• MGMT	3670	Advertising and Promotion
• HM	1010	Introduction to Hospitality Industry
• HM	3710	Marketing of Hospitality Services

For Economics Endorsement:
- MGMT 2020 Macroeconomics
- and MGMT 2010 Microeconomics

Graduation Requirements:
1. Overall grade point average 2.75 or above with a minimum of 2.5 GPA in all discipline and specialty core and elective courses. No grade lower than a "B-" in Education courses and BUS courses and a "C-" in business discipline and specialty core courses.
2. Students are responsible for completing all prerequisite courses.
3. Fifty percent of the credits for the minor must be upper-division courses.

Notes:
Students must pass a criminal background check at the beginning of the junior year.
Participation in Phi Beta Lambda (PBL) or Delta Epsilon Chi (DEX) is required for one semester
Students will teach at least one business (or marketing if completing the Marketing emphasis) course during the student teaching experience.
*Courses requiring field experience.

BS IN INFORMATION TECHNOLOGY 122-125 CREDITS

General Education Requirements: 36 Credits

• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	
or ENGL	2020	Intermediate Writing—Science/Technology	3
• MATH	1050	College Algebra	4

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

Complete one of the following: 3
- HIST 1700 American Civilization
- HIST 2700 US History to 1877
- and HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

BS IN INFORMATION TECHNOLOGY 122-125 CREDITS

Complete the following:
- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness
- or PES 1097 Fitness for Life 2

Distribution Courses
- MGMT 2020 Macroeconomics (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: 29 Credits

IT Environment Core/Business Foundation Courses:
- ACC 2010 Financial Accounting 3
- and ACC 2020 Managerial Accounting*** 3
- or ACC 3000 Financial, Managerial, and Cost Accounting Concepts
- Business Computer Proficiency Exam**
- ISYS 1120 Introduction to the Digital Domain 3
- ISYS 2450 Web Content Development 3
- MGMT 2200 Written Business Communication 3
- MGMT 2010 Microeconomics 3
- MGMT 3010 Principles of Management
- or MGMT 3000 Organizational Behavior 3
- MGMT 3890 Career Preparation* 2

Complete 6 credits from the following courses: 6
- LEGL 3000 Business Law
- or LEGL 3020 Cyber Law
- MGMT 3000 Organizational Behavior (if not taken as a business foundation course requirement)
- MGMT 3100 Principles of Finance*
- MGMT 3170 Entrepreneurship
- MGMT 3300 Survey of International Business
- MGMT 3450 Operations Management*
- MGMT 3600 Principles of Marketing
- MGMT 3660 Internet Marketing (required for the E-Commerce Emphasis)
- CNS 301R Invited Speaker Series
- or MGMT 493R Entrepreneurship Lecture Series
- or MGMT 495R Executive Lecture Series or
- or MCT 210R Special Topics in Multimedia

Specialty Core Requirements: 57-60 Credits

Complete one of the following emphases (see below):
- Administrative Information Management 57
- or E-Commerce 60
- or Information Technology 60
- or Training Design and Development 57

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 UVSC, 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.

*Courses with an asterisk (*) cannot be taken until student is matriculated

**Must be completed with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher in each of the six modules. See the CITE advisor for more details.

***Students planning to attend graduate school should take MATH 1100 rather than MGMT 2240 and ACCT 2010 and 2020 rather than ACCT 3000.

Emphasis in Administrative Information Management 57 CREDITS

Specialty Core Requirements: 39 Credits
- ISYS 2300 Records and Information Management 3
- ISYS 2350 Intermediate Word Processing 3
- ISYS 2360 Business Spreadsheet Applications 3
- ISYS 2370 Business Database Applications 3
- ISYS 3270 Business Presentation Applications 3
- ISYS 3350 Business Desktop Publishing Applications 3
- ISYS 3370 Business Graphics Applications 3
- ISYS 4350 Information Workflow Management* 3
- ISYS 4360 Information Project Management* 3
- MGMT 2390 Effective Business Presentations 3

BS IN INFORMATION TECHNOLOGY 122-125 CREDITS

- MGMT 3430 Human Resource Management* 3

Math Requirement:
- MATH 1100 Introduction to Calculus***
- or MGMT 2240 Foundations of Business Statistics 3
- MATH 2040 Principles of Statistics
- or MGMT 2340 Business Statistical Applications 3

Specialty Elective Requirements: 18 Credits

Select at least 18 credits from the following (some of these credits must be upper-division courses to meet graduation requirements):
- ISYS 2380 Integrated Software Projects 3
- ISYS 3360 Using Visual Basic for Applications 3
- ISYS 3600 Adult Learning for Instructional Design 3
- ISYS 3650 Training and Development 3
- ISYS 183R IAAP Student Chapter 1
- ISYS 184R IAAP Leadership 1
- ISYS 481R Internship 2
- ISYS 496R Information Systems Seminar 1
- MCT 1110 Multimedia Essentials I 4
- MGMT 1060 Personal Finance 3
- MGMT 3210 Convention and Events Management 3
- Other approved courses (see advisor or list)

Emphasis in E-Commerce 60 CREDITS

Specialty Core Requirements: 51 Credits
- ISYS 1200 Visual Programming for Business 4
- ISYS 1420 Systems Architecture 3
- ISYS 2050 Database Fundamentals 3
- ISYS 2200 Advanced Visual Programming for Business 3
- ISYS 3410 Database Systems 3
- ISYS 3420 Internet Application Development I 3
- ISYS 3430 System Analysis and Design I 3
- ISYS 4050 Strategic Use of Information Technology 3
- ISYS 4420 Internet Application Development II 3
- ISYS 4430 System Analysis and Design II* 3
- CNS 2030 Introduction to Data Communication 3
- MGMT 3660 Internet Marketing 3

Project Experience Elective (select one of the following): 3
- ISYS 4550 Information Systems Project
- ISYS 481R Internship

Math Requirement: 3
- MATH 1100 Introduction to Calculus 4
- MATH 2040 Principles of Statistics 4
- CNS 2300 Discrete Structures I 3

Specialty Elective Requirements: 9 Credits

Complete 9 credits from the approved course clusters list (see CITE advisor for list) 9

Emphasis in Information Technology 60 CREDITS

Specialty Core Requirements: 48 Credits
- ISYS 1200 Visual Programming for Business 4
- ISYS 1420 Systems Architecture 3
- ISYS 2050 Database Fundamentals 3
- ISYS 2200 Advanced Visual Programming for Business 3
- ISYS 3410 Database Systems 3
- ISYS 3420 Internet Application Development I 3
- ISYS 3430 System Analysis and Design I 3
- ISYS 4050 Strategic Use of Information Technology 3
- ISYS 4420 Internet Application Development II 3
- ISYS 4430 System Analysis and Design II* 3
- CNS 2030 Intro to Data Communication 3

Project Experience Elective (select one of the following): 3
- ISYS 4550 Information Systems Project
- ISYS 481R Internship

Math Requirement:
- MATH 1100 Introduction to Calculus 4
- MATH 2040 Principles of Statistics 4
- CNS 2300 Discrete Structures I 3

Specialty Elective Requirements: 12 Credits

Complete 12 credits from the approved course clusters list (see CITE advisor for list) 12

Emphasis in Training Design and Development 57 CREDITS

Specialty Core Requirements: 43 Credits

BS IN INFORMATION TECHNOLOGY 122-125 CREDITS

- ISYS 2370 Business Database Applications 3
- ISYS 3270 Business Presentation Applications 3
- ISYS 3360 Using Visual Basic for Applications 3
- ISYS 3370 Business Graphics Applications 3
- ISYS 3600 Adult Learning for Instructional Design 3
- ISYS 3650 Training and Development 3
- ISYS 4360 Information Project Management 3
- ISYS 482R Training and Development Internship 2
- MGMT 2390 Effective Business Presentations 3
- MGMT 3430 Human Resource Management* 3
- MCT 1110 Multimedia Essentials I 4
- MCT 1210 Multimedia Essentials II 4

Math Requirement:
- MATH 1100 Introduction to Calculus
- or MGMT 2240 Foundations of Business Statistics 3
- MATH 2040 Principles of Statistics
- or MGMT 2340 Business Statistical Applications 3

Specialty Elective Requirements: 14 Credits

Select at least 14 credit hours of elective courses (see advisor for suggested courses). Some of these credits must be upper-division courses to meet graduation requirements.

MINOR IN BUSINESS INFORMATION TECHNOLOGY 23 CREDITS

Matriculation Requirements:
1. Admitted to a bachelor degree program at UVSC.

Discipline Core Requirements: 17 Credits
- ISYS 224R Digital Communication Tools 2
- ISYS 2360 Business Spreadsheet Applications 3
- ISYS 2370 Business Database Applications 3
- ISYS 3270 Business Presentation Applications 3
- ISYS 3350 Business Desktop Publishing Applications 3
- ISYS 2450 Web Content Development 3

Elective Requirements: 6 Credits

Select 6 credits from the following: 6
- ISYS 3360 Using Visual Basic for Applications
- ISYS 3370 Business Graphics Applications
- ISYS 4350 Information Workflow Management
- ISYS 4360 Information Project Management

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.

BA/BS IN INTEGRATED STUDIES 123 CREDITS

The following Integrated Studies emphasis is available (see the Integrated Studies section of this catalog for complete degree requirement listings):
- Office Management

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

BUS 1000
Keyboarding Basics
1:1:1 F, Sp

For students without previous training in keyboarding. Emphasizes fundamental keyboard-

ing skills as well as proper techniques. Taught on computers.

BUS 102R
Keyboard Reinforcement
1:0:2 F, Sp
• Prerequisite: Minimum keyboarding skill of 20 WPM
Emphasizes speed and accuracy through improved techniques using timed writings. Uses computer keyboards. One credit may apply toward a certificate or AAS degree.

BUS 3700
Principles of Business/Marketing Education
3:3:0 F
• Prerequisite: Admittance into the secondary teacher education program, EDSC 2540; EDSC 3000
Provides background and foundation of business/marketing teacher education for students seeking a secondary education degree. Includes curriculum standards, competency-based instruction and assessment, student achievement, textbook selection, exploring available resources, equipment selection and management, and establishing classroom procedures. Explores student organizations, professional associations, advisory committees, relationships with colleagues, and dealing with various publics and stakeholders. Addresses career and technical education, current research, issues and trends in business and marketing education, teacher growth and development, and professionalism. Field experience required.

BUS 4200
Methods of Teaching Keyboarding and Computer Applications
3:3:1 Sp
• Prerequisite: BUS 3700, ISYS 2350, ISYS 2360, ISYS 2370, ISYS 3270, EDSC 3000
• Corequisite: EDSP 3400
Provides instructional strategies for teaching keyboarding and computer applications.

BUS 4250
Methods of Teaching Business and Marketing
3:3:1 F
• Prerequisite: ACC 2010, BUS 3700, EDSC 3000, LEGL 3000, MGMT 2200, MGMT 2020, MGMT 3600
Provides an opportunity for students to become facilitators of learning specifically by planning, developing, delivering, and evaluating basic business curriculum.

BUS 4900
Business/Marketing Student Teaching Seminar
2:2:0 F, Sp
• Prerequisite: BUS 4200, BUS 4250, and Admission to Professional Education Program
• Corequisite: EDSC 4850
Discusses the student teaching environment as experienced by the students as they perform teaching responsibilities. Allows the student to draw on the experiences of other students in the class, resource people, and the seminar leader. Offered credit/no-credit.

ISYS 1050
Basic Computer Applications
3:3:0 Su, F, Sp
• Prerequisite: Basic keyboarding skill
Presents basic computer concepts and hands-on training in using a PC operating system, web browsers, e-mail software, and office application suite software. Exposes students to basic terminology of computer hardware and software. Teaches basic computer operating system software commands for efficient computer utilization. Teaches use of Internet browsers to locate information for professional and personal use. Introduces e-mail basics and netiquette. Teaches commands needed to create, edit, enhance, save, print, and use effectively word processing documents, spreadsheets, databases, and presentation slide shows. Offered credit/no-credit option.

ISYS 105A
Basic Computer Concepts/Operating System
0.5:0.5:0 Su, F, Sp
• Prerequisite: Basic keyboarding skill
Presents basic computer concepts and hands-on training in operating system software. Exposes students to hardware and software terminology. Studies PC operating system software to create desktop shortcuts, perform file management, set resolution, work with multiple application windows, and other properties. Offered credit/no-credit option.

ISYS 105B
Basic Internet/E-mail Applications
0.5:0.5:0 Su, F, Sp
• Prerequisite: Basic keyboarding skill
Presents use of the Internet and e-mail. Emphasizes commands needed to function on the Internet. Includes using hyperlinks to navigate through the Internet. Stresses methods for saving text and images off the Internet. Discusses acceptable use policies. Exposes students to browsers and search engines to locate information on the Internet. Introduces e-mail basics, netiquette, and address book maintenance. Offered credit/no-credit option.

ISYS 105C
Basic Word Processing Applications
0.5:0.5:0 Su, F, Sp
• Prerequisite: Basic keyboarding skill
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. Offered credit/no-credit option.

ISYS 105D
Basic Spreadsheet Applications
0.5:0.5:0 Su, F, Sp
• Prerequisite: Basic keyboarding skill
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. Offered credit/no credit option.

ISYS 105E
Basic Presentations Applications
0.5:0.5:0 Su, F, Sp
• Prerequisite: Basic keyboarding skill
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. Offered credit/no credit option.

ISYS 105F
Basic Database Applications
0.5:0.5:0 Su, F, Sp
• Prerequisite: Basic keyboarding skill
Introduces database software. Emphasizes process of designing, modifying, and creating related tables. Includes creating forms, generating reports and labels and constructing queries. Offered credit/no credit option.

ISYS 1060
Introduction to Computer Concepts
1:1:0 On Sufficient Demand
Emphasizes introductory computer concepts. Includes in-depth discussion of hardware and peripherals in the electronic workplace. Introduces students to types of computer software and their uses, networking and telecommunication applications, and technological advances. Explores computer security and risks.

ISYS 1080
10-Key Data Entry
0.5:0:2 F, Sp
Prepares students to operate 10-key adding machines or 10-key computer pads proficiently by the touch system. Emphasizes straight addition and rapid data entry with at least 98 percent accuracy. Includes subtraction, decimal control, and subtotals. Self-paced and taught on computers.

ISYS 1100
Introduction to Computers
4:4:0 F, Sp
Introduces computer application software for word processing, spreadsheets, presentation graphics, electronic mail, and the Internet, including the Windows operating system. Teaches computer vocabulary and concepts.

ISYS 1120
Introduction to the Digital Domain
3:3:0 Su, F, Sp
Introduces the field of information systems. Studies why computing technology works the way it does. Examines the digital domain and how it affects every part of our society—home, work, education, and recreation. Helps students realize how important it is to learn the basic concepts and skills required for working and living in an information world. Explores how a variety of businesses and individuals use information systems for success.

ISYS 1200
Visual Programming For Business
4:4:0 F, Sp
• Prerequisite: ISYS 1120 and MAT 1010
• Corequisite: MAT 1010
Presents concepts of event-driven visual programming. Emphasizes problem-solving, user interface design, program structure and design, data types and structures, and documentation. Introduces object-oriented concepts and debugging.

ISYS 1340
Beginning Computer Applications
2:2:1 On Sufficient Demand
• Prerequisite: Basic keyboarding skill
For technology students. Presents basic concepts of the current operating system, word processing, and spreadsheet software. Includes theory, instruction, demonstration, and hands-on experience. Completers should be able to create, format, enhance, revise, save, and print business correspondence, short reports, spreadsheets, and documents that include graphics and equations.

ISYS 134A
Beginning Computer Applications/Word Processing
1:1:0.5 On Sufficient Demand
• Prerequisite: Basic keyboarding skill
For technology students. Presents basic concepts of the current operating system and word processing software. Includes theory, instruction, demonstration, and hands-on experience. Completers should be able to produce business correspondence, short reports, and documents that include graphics and equations.

ISYS 134B
Beginning Computer Applications/Spreadsheets
1:1:0.5 On Sufficient Demand
• Prerequisite: Basic keyboarding skill
For technology students. Presents basic concepts of the current operating system and spreadsheet software. Includes theory, instruction, demonstration, and hands-on experience. Completers should be able to create, format, enhance, revise, save, and print spreadsheets.

ISYS 1350
Beginning Word Processing
3:3:0 F
• Prerequisite: Basic keyboarding skill
For students without previous word processing experience. Teaches word processing in a Windows environment to create, format, edit, and print documents. Includes creating business letters, short reports, simple memorandums, simple tables, and documents containing simple graphics. Offered credit/no-credit option.

ISYS 1420
Systems Architecture
3:3:0 F, Sp
• Prerequisite: ISYS 1120
Provides hardware/software technology background to understand the trade-offs made when choosing a computer architecture or operating system. Requires work with several operating systems and a research paper.

ISYS 183R
IAAP Student Chapter
1:1:0 On Sufficient Demand
For career-oriented business students who are interested in participating with an international business administrative professional organization (International Association of Administrative Professionals). Develops insights regarding lifetime careers and advancement opportunities for administrative support personnel. Clarifies the relationship between the business world and administrative professions. Promotes a spirit of fellowship and the exchange of ideas and opportunities for leadership positions, committee assignments, participation in school and community activities, and competition in national competitive events. Requires payment of membership dues. Graded credit/no credit. A maximum of four credits may be applied toward graduation.

ISYS 184R
IAAP Leadership
1:1:0 On Sufficient Demand
For International Association of Administrative Professionals student chapter officers. Includes development, organization and direction of the IAAP student chapter at UVSC. Graded credit/no credit. A maximum of four credits may be applied toward graduation.

ISYS 2050
Database Fundamentals
3:3:0 F, Sp
• Prerequisite: ISYS 1200
Introduces concepts and use of database management systems. Presents the relational model, Structured Query Language, database design including normalization theory, and application development tools of a personal computer relational database management system.

ISYS 2200
Advanced Visual Programming for Business
3:3:0 Sp
• Prerequisite: ISYS 1200, ISYS 2050
Builds on the visual programming skills learned in ISYS 1200. Continues with advanced topics such as exception handling, testing, debugging, reporting, and using class libraries. Covers object oriented principles including inheritance, polymorphism, and data encapsulation.

ISYS 224R
Digital Communication Tools
2:2:1 F, Sp
• Prerequisite: ISYS 1050, business computer proficiency, or instructor approval
Introduces students to emerging technology that allows users to write by voice or digital input and to have limited control of the Windows environment and application function by voice and digital input. Presents an overview of current technology, getting started using the technology, learning the basics, making speech recognition part of the computer routine, and using speech recognition and digital input tools routinely as communication tools. Provides in-class instruction and independent practice. May be repeated for four credits toward graduation.

ISYS 2300
Records and Information Management
3:3:0 F
• Corequisite: ISYS 2370
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.

ISYS 2320
Microcomputer Suite Applications
4:4:0 On Sufficient Demand
• Prerequisite: Basic word processing skill
Teaches students intermediate features of a standard applications suite. Includes theory, instruction, demonstration, and hands-on experience. Identifies and troubleshoots problems associated with soft copy and document production. Includes producing and formatting letters and documents with graphic images, tables, and charts; perform mail merges; create and apply styles; create and format financial spreadsheets using a variety of functions and formulas; use a spreadsheet list for simple database manipulation; perform integration between software programs; and plan, create, format, and run an electronic slide show. Stresses what-if analysis to make business decisions.

ISYS 232A
Microcomputer Suite Applications/Word Processing
2:2:0 On Sufficient Demand
• Prerequisite: Basic word processing skill
Teaches students intermediate features of word processing. Includes theory, instruction, demonstration, and hands-on experience. Identifies and troubleshoots problems associated with soft copy and document production. Includes producing and formatting letters and documents with graphic images, tables, and charts; mail merges and styles. Stresses professional document production.

ISYS 232B
Microcomputer Suite Applications/Spreadsheets
2:2:0 On Sufficient Demand
• Prerequisite: Basic word processing skill
Teaches students intermediate features of spreadsheet applications. Includes theory, instruction, demonstration, and hands-on experience. Identifies and troubleshoots problems associated with soft copy and document production. Students will create and format financial spreadsheets using a variety of functions and formulas; use a spreadsheet list for simple database manipulation; perform integration between software programs; and plan, create, format, and run an electronic slide show. Stresses what-if analysis to make business decisions.

ISYS 2350
Intermediate Word Processing
3:3:0 F, Sp
• Prerequisite: ISYS 1350 or instructor approval
Teaches intermediate word processing features in a Windows environment for the production of business letters, envelopes, multiple-page documents, reports, newsletters, tables, and other specialized business documents. Emphasizes identification and troubleshooting problems associated with soft copy document production. Stresses proper formatting.

ISYS 2360
Business Spreadsheet Applications
3:3:0 F, Sp
• Prerequisite: ACC 1150 or equivalent business math knowledge; basic word processing skill
Introduces commonly used capabilities of spreadsheet software. Provides understanding of spreadsheet utilization in a business.

ISYS 236A
Business Spreadsheet Applications
1:1:0 On Sufficient Demand
• Prerequisite: ACC 1150 or equivalent business math knowledge; basic word processing skill
Introduces commonly used capabilities of spreadsheet software. Provides understanding of spreadsheet utilization in a business. Covers last five weeks of ISYS 2360 course curriculum, logical functions through case studies instruction.

ISYS 236B
Business Spreadsheet Applications
2:2:0 On Sufficient Demand
• Prerequisite: ACC 1150 or equivalent business math knowledge; basic word processing skill
Introduces most commonly used capabilities of spreadsheet software. Provides understanding of spreadsheet utilization in a business. Covers first ten weeks of ISYS 2360 course curriculum, introduction through macro instruction.

ISYS 2370
Business Database Applications
3:3:0 F, Sp
• Prerequisite: Basic word processing skill
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.

ISYS 237A
Business Database Applications
1:1:0 On Sufficient Demand
• Prerequisite: Basic word processing skill
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. Covers last five weeks of ISYS 2370 course curriculum, hyperlink fields through introduction to Visual Basic.

ISYS 237B
Business Database Applications
2:2:0 On Sufficient Demand
• Prerequisite: Basic word processing skill
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. Covers first ten weeks of ISYS 2370 course curriculum, introduction through custom reports.

ISYS 2380
Integrated Software Projects
3:3:0 Sp
• Prerequisite: MGMT 2200, ISYS 2350, ISYS 2360, ISYS 2370
• Corequisite: ISYS 2370
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. Includes machine transcription, integration of suite software components, effective use of groupware, and completion of group projects. Stresses self-motivation, acceptance of responsibility, critical thinking, and effective decision making.

ISYS 2450
Web Content Development
3:3:0 Su, F, Sp
• Prerequisite: Business Computer Proficiency
Focuses on the design and construction of WWW home pages and maintenance of web sites in a multi-media platform environment. Teaches current SGML (HTML) standards and exposes students to the latest enhancements. Covers design concepts, page layout, legal issues, basic client-side and server-side security, and commercial use of the Web.

ISYS 2490
Computer Help Desk Consulting
3:1:6 On Sufficient Demand
• Prerequisite: ISYS 1120 and Business Computer Proficiency
Provides knowledge base and skills necessary to become a help desk consultant. Includes function of help desk, role of help desk personnel, tutoring and small group instruction models, hardware and software diagnostics, problem resolution tracking, and customer-oriented service approach. Requires a course project and significant in-lab experience.

ISYS 259R
Current Topics in Information Systems
1-3:1-3:0 On Sufficient Demand
• Prerequisite: Department Approval
Provides exposure to emerging technologies and topics of current interest in information systems. Topics vary each semester depending upon the state of technology. A maximum of three hours may be counted toward graduation.

ISYS 281R
Cooperative Work Experience
2-8:0:10-40 Su, F, Sp
• Prerequisite: 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. Students shall meet monthly with a School of Business Career and Corporate Manager. Completers meet individually set goals. A total of six credits may be applied toward graduation with an AAS degree and three credits toward certificate programs.

ISYS 296R
Seminar
1-3:1-3:0-9 On Sufficient Demand
Provides short courses, workshops, and special programs in information management or current business topics. May be taken as desired for interest.

ISYS 297A
Independent Study
1:0:3 On Sufficient Demand
Offers independent study as directed in reading in individual projects. Approval for this course is at the discretion of the department chairperson.

ISYS 297B
Independent Study
2:0:6 On Sufficient Demand
Offers independent study as directed in reading in individual projects. Approval for this course is at the discretion of the department chairperson.

ISYS 297C
Independent Study
3:0:9 On Sufficient Demand
Offers independent study as directed in reading in individual projects. Approval for this course is at the discretion of the department chairperson.

ISYS 301R
Professional Organizations
0.5:0.5:0 On Sufficient Demand
Provides professional development opportunities in leadership, human relations, management, social, communicative, and organizational skills. May count up to two credits for graduation.

ISYS 3120
Principles of Information Systems—A Managerial Approach
3:3:0 Su, F, Sp
• Prerequisite: (MGMT 2200 or ENGL 2010 or ENGL 2020) and Business Computer Proficiency
For business management majors. Introduces the field of information systems. Teaches the general business manager how to use and manage the most current information technologies (IT). 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.

ISYS 321R
Applications Software Update
0.5-3:0.5-3:0 On Sufficient Demand
• Prerequisite: Instructor or department chair approval
For those interested in updating to new versions of software. Teaches new software features. Explores changes or updates in software. Introduces changes/updates in the operating system. Repeatable for up to three credits toward requirements for a degree. May be taken as desired for interest.

ISYS 3270
Business Presentation Applications
3:3:0 F, Sp
• Prerequisite: Basic word processing skill
Teaches a presentations software package to create business charts and graphs, illustrations for desktop publishing, text charts, computer slide presentations, and other business-oriented publications. Incorporates presentation templates, drawings, charts and graphs, scanned images, sound, clipart, animations, and hyperlinks to create a slide show.

ISYS 3350
Business Desktop Publishing Applications
3:3:0 F, Sp
• Prerequisite: ISYS 2350 or instructor approval
Emphasizes desktop publishing features. Uses current word processing software in a Windows environment to produce complex documents. Covers formatting and design principles.

ISYS 3360
Using Visual Basic for Applications
3:3:0 Sp
• Prerequisite: ISYS 2350, ISYS 2360, ISYS 2370, ISYS 3270; Suggested: ISYS 3350
For administrative information management or training design and development majors. Introduces Visual Basic for Applications (VBA) as a programming language to extend the functionality of the Microsoft Office Suite. Presents programming fundamentals necessary to integrate MS Office applications. Students design, code, test, and debug several VBA applications that run within Word, Excel, Access, and PowerPoint.

ISYS 3370
Business Graphics Applications
3:3:0 F
• Prerequisite: One of the following: ISYS 3270, ISYS 2450, MCT 1110, business computer proficiency, or instructor approval
Introduces digital imaging, vector-based graphics, and web-based graphics design for instructional projects. Provides an overview of creating digital images and web graphic essentials including optimizing graphics for the web using Adobe Photoshop. Explores creating vector graphics for animations, presentations, instructional applications and Web sites using Adobe Illustrator and Macromedia Flash. Employs screen capture software in the production and design of visuals. Includes converting projects into portable documents using Adobe Acrobat.

ISYS 3410
Database Systems
3:3:0 F, Sp
• Prerequisite: ISYS 1420, ISYS 2050, ISYS 2200
Presents concepts and methods of defining, creating, and managing database systems. Includes information, transaction processing and security issues, performance analysis, and a survey of emerging technologies in database management. Develops complex database designs and implements them using commercial database products. Studies the application of data warehousing/data mining tools in performing data analysis for decision making.

ISYS 3420
Internet Application Development I
3:3:0 F
• Prerequisite: ISYS 2200, ISYS 2450, ISYS 3410, ISYS 3430
• Corequisite: ISYS 3430
Uses advanced development environments for the development of e-commerce and customized applications. Uses current technologies to accomplish the retrieval and exchange of data.

ISYS 3430
Systems Analysis and Design I
3:3:0 F
• Prerequisite: ISYS 2050, ISYS 2200, MGMT 2200, CNS 2030
Introduces the student to the systems development process with a principal focus on strategic IS planning, IS project management, and the systems development life cycle through the analysis phase. Teaches the use of appropriate methodologies, tools, and techniques including structured and object-oriented modeling and the use of a CASE tool. Uses cases as the vehicle for student assignments.

ISYS 3460
Server Administration
3:3:0 F, Sp
• Prerequisite: ISYS 2450, CNS 2030
Covers installation and administration of enterprise servers using current technologies focusing on application development support components. Covers security and performance issues.

ISYS 3600
Adult Learning for Instructional Design
3:3:0 On Sufficient Demand
• Prerequisite: Suggested: ISYS 3270, MGMT 2390
Focuses on learning and instruction theories for adults within the context of a business/industry training environment. Explores through a wide variety of business examples specific implications and applications of these theories into instructional design to resolve performance problems.

ISYS 3650
Training and Development
3:3:0 On Sufficient Demand
• Prerequisite: MGMT 2390
Teaches the lifecycle 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.

ISYS 4050
Strategic Use of Information Technology
3:3:0 Sp
• Prerequisite: ACC 3000, (MGMT 3000 or MGMT 3010), MGMT 3600
• Corequisite: ISYS 4420, ISYS 4430, MGMT 3450
Focuses on the major role information technology plays in business organizations by providing strategic advantage in facilitating problem solving, increasing productivity and quality, customer service, and enabling business process reengineering. Uses lectures which are primarily case based to examine large corporations, small businesses, e-commerce businesses, government, and non-profit agencies to discover the innovative ways real corporations are using IT in their operations. Requires a major research paper and individual and group projects.

ISYS 4100
CPS Review—Finance and Business Law
2:2:0 On Sufficient Demand
• Prerequisite: Instructor approval
For students and others wishing to prepare for the Certified Professional Secretary Examination administered by International Association of Administrative Professionals. Prepares students to sit for the Finance and Business Law section of the CPS exam.

ISYS 4110
CPS Review—Office Systems and Administration
2:2:0 On Sufficient Demand
• Prerequisite: Instructor approval
For students and others wishing to prepare for the Certified Professional Secretary Examination administered by International Association of Administrative Professionals. Prepares students to sit for the Office Systems and Administration section of the CPS exam.

ISYS 4120
CPS Review—Management
2:2:0 On Sufficient Demand
• Prerequisite: Instructor approval
For students and others wishing to prepare for the Certified Professional Secretary Examination administered by International Association of Administrative Professionals. Prepares students to sit for the Management section of the CPS exam.

ISYS 4130
Certified Administrative Review
2:2:0 On Sufficient Demand
Prepares students to sit for the Organizational Planning section of the Certified Administrative

Professional Examination administered by the International Association of Administrative Professionals.

ISYS 4350
Information Workflow Management
3:3:0 F
• Prerequisite: (ISYS 2350, ISYS 2360, ISYS 2370, ISYS 3270, and ISYS 3350) or approval of instructor; and matriculation into the BS Information Technology program
Emphasizes 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 administrative information management activities including planning and organizing new projects; directing new and ongoing operations; and utilizing available technology to process, analyze, manage, and communicate information. Stresses self-motivation, effective decision making, and critical- and creative-thinking skills. Completers should function effectively in the role of an administrative information manager.

ISYS 4360
Information Project Management
3:3:0 Sp
• Prerequisite: Matriculation into the Bachelor's Degree Program
Emphasizes multitasking of projects and work processes in a collaborative environment. Requires planning and tracking projects; utilizing people, time, and resources effectively; communicating expectations clearly; and providing project information as needed.

ISYS 4420
Internet Application Development II
3:3:0 Sp
• Prerequisite: ISYS 3420, ISYS 3460
Utilizes advanced enabling technologies for the design and development of enterprise-wide, Internet-based applications.

ISYS 4430
Systems Analysis and Design II
3:3:0 Sp
• Prerequisite: ISYS 3430 and Matriculation into the Bachelor's Degree Program
A continuation of ISYS 3430. Focuses on the design, implementation, and support phases of the systems development life cycle. Studies in-house development and package purchase (including enterprise software). Teaches the use of appropriate methodologies, tools, and techniques including structured and object-oriented modeling, RAD, prototyping, software engineering, and the use of a CASE tool. Includes both client/server and Web applications. Uses cases as the vehicle for student assignments.

ISYS 4450
Computer Supported Cooperative Work
3:3:0 On Sufficient Demand
• Prerequisite: ISYS 3410 and MGMT 3000 and Matriculation into the Bachelor's Degree Program
Introduces concepts and functions available for using the computer and associated networks in support of group activities. Surveys, analyzes, and implements software tools available for developing computer supported cooperative work (CSCW) and group decision support systems (GDSS).

ISYS 4470
Intelligent Agents for Decision Support
3:3:0 On Sufficient Demand
• Prerequisite: ISYS 3410 and MATH 1100 or MATH 1210 and Matriculation into the Bachelor's Degree Program
Studies the role of decision support systems in an organization. Surveys concepts and principles of artificial intelligence methodologies including neural networks, expert systems, machine learning algorithms, and genetic algorithms. Provides hands-on experience in application of each methodology.

ISYS 4550
Information Systems Project
3:3:0 F, Sp
• Corequisite: ISYS 4430
Applies the methodologies, tools and techniques studied in ISYS 3430 and ISYS 4430. Involves the implementation of a significant information system for a specific customer from a local organization. Involves students working in teams, the development of a project notebook documenting their results, and a final presentation to the customer and interested faculty. Helps to assess student attainment of competencies required for the Information Technology degree.

ISYS 459R
Advanced Current Topics in Information Systems
1-3:1-3:0 F, Sp
• Prerequisite: Department Approval
Provides exposure to emerging technologies and topics of current interest in information systems. Varies each semester depending upon the state of technology. May apply a maximum of six hours toward graduation.

ISYS 4610
Designing Technology-based Training
3:3:0 On Sufficient Demand
• Prerequisite: ISYS 3650
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 ISYS 3650 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.

ISYS 4620
Producing Technology-based Training
3:3:0 On Sufficient Demand
• Prerequisite: ISYS 4610
Builds on information taught in ISYS 3650 and ISYS 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.

ISYS 481R
Internship
2-8:0:10-40 Su, F, Sp
• Prerequisite: Approval of School of Business Career and Corporate Manager
For bachelor's degree students. Provides opportunities to apply classroom theory while students work as employees in a job that relates to their careers. Meet monthly with a School of Business Manager of Career and Corporate Development. Credit is determined by the number of hours a student works during the semester and completion of individually set goals. Four credits may be applied toward a Bachelor of Science Degree in business. Graded credit or no-credit.

ISYS 482R
Training and Development Internship
2-3:1:3-6 On Sufficient Demand
• Prerequisite: Instructor Approval and Matriculation into the Bachelor's Degree Program
Provides opportunities to intern in an approved educational or business environment where classroom theory and training experiences may be applied to meet training objectives. Requires weekly meetings with coordinator and other students in a classroom setting to share experiences and to receive direction. Credit is determined by the number of hours a student provides training during the semester. Completers should be prepared to apply intern experiences and skills to future training opportunities. Repeatable for up to three credits.

ISYS 483R
Computer Applications Internship
1-2:0:3-6 On Sufficient Demand
• Prerequisite: Upper division status and approval of department chair; ISYS 2350, ISYS 2360, ISYS 2370, ISYS 3270; CNS 2610
Applies classroom theory on the job by assisting other students with their computer problems in a lab situation while working in a School of Business computer lab. Requires meeting with the School of Business Computer Center Director and assisting in other duties as assigned. Graded credit/no credit. Repeatable for up to two credits.

ISYS 496R
Information Systems Seminar
1-3:1-3:0-9 On Sufficient Demand
• Prerequisite: Instructor/department chair approval
Provides short courses, workshops, and special programs in information management or current

business topics. Repeatable for up to three credits.

ISYS 497A
Independent Study
1:0:3 Su, F, Sp
• Prerequisite: Department chair approval
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.

ISYS 497B
Independent Study
2:0:6 Su, F, Sp
• Prerequisite: Department chair approval
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.

ISYS 497C
Independent Study
3:0:9 Su, F, Sp
• Prerequisite: Department chair approval
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.

COOPERATIVE EDUCATION

School of Business

Accounting, Finance and Economics, and Business Management
Communication
John Wilson
Office: WB 257d, 801-863-6307
Business Management
Mikki O'Connor
Office: WB 257e, 801-863-8850
Hospitality Management and Legal Studies
Peggy K. Adams-Williams
Office: WB 257c, 801-863-8379

School of Computing, Engineering and Technology

Air Conditioning/Refrigeration Technology:
Dale Olson
Office: GT 606c, 801-863-8248
Apprenticeship
Ross Ford
Office: GB 102, 801-863-7950
Automotive Technology:
Orrin Nelson
Office: SA 320, 801-863-8243
Aviation:
Elizabeth Butler (Lower Division)
Office: Provo Municipal Airport, 801-863-7836
Tobyn DeGraw (Upper Division)
Office: Provo Municipal Airport, 801-863-7780
Building Construction and Construction Management:
Robert Dunn
Office: GT 615, 801-863-8249
Building Inspection Technology:
Fred Davis
Office: GT 615, 801-863-8861
Cabinetry and And Architectural Woodwork::
Kelly Baird
Office: GT 629, 801-863-8860
Collision Repair Technology:
Don Wilson
Office: SA 325b, 801-863-8360

Computer Information Technology and Education and Networking Sciences

Peggy K. Adams-Williams
Office: WB 257c, 801-863-8379
Culinary Arts:
Greg Forte
Office: MC007f, 801-222-8087
Diesel Technology:
Don Ray Nelson
Office: SA 317, 801-863-6320
Facilities:
Eric Linfield
Office: GT 613d, 801-863-8250
Global Aviation:
Claire Downing (Lower Division)
Office: Provo Municipal Airport, 801-863-7816
Ryan Tanner (Upper Division)
Office: Provo Municipal Airport, 801- 863-7840
Fire Science:
See Department Advisor
Office: Provo Municipal Airport, 801-863-7753
Lineman Technology:
Max Christofferson
Office: GB 242, 801-863-7982
Technology Management:
Floyd Olson
Office: GT 616b, 801-863-8524
Welding Technology:
Lynn Baadsgaard
Office: GT 525, 801-863-81350
Other Departments: See Department Advisor

School of Education

Susan Simmerman
Office: EB 116a, 801-863-5097

School of General Academics

College Success
Michael Jensen
Office: LA 209k, 801-863-7090

School of Humanities, Arts, and Social Sciences

Art and Visual Communications
Ken Ewell
Office: GT 535, 801-863-8341
Communication
Phil Gordon
Office: FA 727, 801-863-8186
English
Kate McPherson
Office: EB 010-101, 801-863-8055
Theatre
James Arrington
Office: GT 629, 801-863-8071

School of Science and Health

See Department Advisor

CAREER EXPLORATION

Introduction

The College strongly encourages its students to enroll in cooperative education courses. Cooperative education is the combining of classroom theory with related, practical job experience. Students work as paid employees of a business, agency, or institution while enrolled at the college in classes related to their career. A coordinator works closely with students and employers to ensure that the work experience is a successful career education experience.

Most departments in the college have integrated cooperative education in their curriculum. Those departments that offer four-year degrees also offer upper division cooperative courses for juniors and seniors. Please refer to specific departments in the catalog for detailed information. Approval for enrollment must be obtained from the department/school Cooperative Coordinator. Students without a declared major should contact the School of Humanities, Arts, and Social Sciences Cooperative Coordinator for assistance.

Cooperative students may work either part-time or full-time. Some companies hire cooperative students on an alternating basis where the student works full-time for a semester, attends school the next semester, and then works full-time the following semester. Academic credit for cooperative work experience is granted according to the number of hours a student works during the semester, and follows this formula:

Credit Hours	Minimum Hours of Work
1	75
2	150
3	225
4	300
5	375
6	450
7	525
8	600

The amount of effort required to complete learning objectives should be commensurate with the number of credit hours granted in the formula. A one-credit hour related class may also be required of students registered for cooperative work experience. Grading for cooperative courses is CR (credit granted) or NC (credit not granted). The maximum number of cooperative credits that a student may register for is 16. Any exception to this policy requires the signature of the student's dean.

Cooperative experience may substitute for part of the curriculum, most commonly as elective credit. The maximum number of cooperative credits that may be applied toward a certificate is eight; a diploma is 14; an associate or bachelor degree is 16 credit hours. In departments where those substitutions are clearly defined, they will be listed in the catalog. In other departments, substitution decisions will be based on a student's particular work experience and will be negotiated among the student, the Cooperative Coordinator, and the department chair.

Career Exploration Courses

The following courses are recommended as career exploration courses for those students who are investigating possible careers in vocational areas. These are basic orientation courses and in most cases will count towards filling major requirements if the student chooses to continue the program. The College is committed to assisting students in making intelligent, informed, career choices. The general career exploration courses are available to all students.

COURSE DESCRIPTIONS

The general education code, if any, appears to the right of the course number, see Academic

Policies section for code clarification. The line below the course title indicates the number of credits, lecture and laboratory hours per week (CR:LEC:LAB) and the terms the course will be offered for the academic year of this catalog (Su=Summer, F=Fall, Sp=Spring).

ACC 281R
Cooperative Work Experience
2-8:0:10-40 Su, F, Sp
- Prerequisite: Approval of School of Business Career and Corporate Manager
- Corequisite: MGMT 2250 or MGMT 4250 if first time

Designed for accounting majors to provide on-the-job work experience that will utilize the students 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.

ACC 481R
Internship
2-8:0:10-40 Su, F, Sp
- Prerequisite: Approval of School of Business Career and Corporate Manager
- Corequisite: MGMT 3890 if first time

For upper-division students in accounting. 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.

ACRT 1000
Survey of Air Conditioning and Refrigeration
1:1:0
An introductory course which allows students to explore the opportunities available in the challenging and rewarding fields of Air Conditioning, Refrigeration, Heating, and Sheet Metal work. Covers theories, physics, and principles of various refrigeration and air conditioning systems. Includes hands-on practice with flaring and welding copper tubing.

ACRT 281R
Cooperative Work Experience
1-8:0:5-40 F, Sp
- Corequisite: ACRT 285R the first time only

For Air Conditioning and Refrigeration 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 evaluation, on-site work visits, written assignments, and oral presentations. Provides experience in writing and completing individualized work objectives that improve present work performance.

ACRT 285R
Cooperative Correlated Class
1:1:0 F, Sp
- Corequisite: ACRT 281R the first time only

For Air Conditioning and Refrigeration 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.

AERO 399R
Academic Internship—Leadership Intern Program
4:0:8
- Prerequisite: Instructor Approval for Air Force ROTC Cadets only

Provides advanced fundamentals of military leadership, planning, organizing, and team building at various levels of responsibility.

APPR 281R
Cooperative Work Experience
1-8:0:5-40 On Sufficient Demand
- Corequisite: 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.

APPR 285R
Cooperative Correlated Class
1:1:0 On Sufficient Demand
- Corequisite: 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.

AUT 1000
Survey of Automotive Technology
2:2:0 F, Sp
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 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
- Corequisite: 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.

AUT 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
- Corequisite: 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.

AVC 281R
Cooperative Work Experience
1-8:0:5-40 On Sufficient Demand
Actual on-the-job training in cooperation with businesses and firms in the local area. Work experience credit is offered in conjunction with a correlated job preparation course (AVC 285R). For job qualified students only, with department Coop coordinator permission.

AVC 285R
Cooperative Correlated Class
1:1:0 F, Sp
For Art and Visual Communications students who wish to earn credit in cooperative work experience. Emphasizes job seeking skills such as resume writing, cover letters, interviewing techniques and portfolio development. May be repeated once for credit.

AVSC 1010 GP
Survey of Aviation Science
2:2:0 Su, F, Sp
Designed for all students interested in career opportunities in Aviation Science and general knowledge of aviation and aerospace studies. Includes historical events in aviation and aerospace development. Studies aviation and aerospace terminology, how airplanes and spacecraft fly, research and development of future systems, government and industry roles in the growth of aviation, and potential careers in aviation. Includes a field trip and several interesting and exciting projects.

AVSC 281R
Cooperative Work Experience
1-8:1:5-40 Su, F, Sp
• Corequisite: AVSC 285R
Designed for Aviation 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.

AVSC 285R
Cooperative Related Class
1:1:0 Su, F, Sp
• Corequisite: AVSC 281R
This course is designed to identify on-the-job opportunities and problems of cooperative work experience students, and provide opportunities for in-class discussion and study.

AVSC 481R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Prerequisite: Instructor approval
• Corequisite: AVSC 485R
For upper division Aviation majors. Provides on the job work experience that will utilize student's skills and abilities in the field of Aviation. 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 twice for credit.

AVSC 485R
Cooperative Related Class
1:1:0 Su, F, Sp
• Prerequisite: Instructor approval
• Corequisite: AVSC 481R
For upper division Aviation Science majors. Identifies on the job managerial problems through class discussion and study. Teaches resume and job interview letter writing, interview techniques, and personal and career goal setting. Includes lecture, guest speakers, case analysis, role playing, oral presentations, and written assignments. May be repeated twice for credit.

BCCM 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: BCCM 285R first time only
For Building Construction and Construction Management 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 taken twice for credit.

BCCM 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: BCCM 281R first time only
For Building Construction and Construction Management 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. 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 taken twice for credit.

BESC 1000
Behavioral Science Forum
2:2:0 F, Sp
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.

BIT 281R
Cooperative Work Experience
1-8:0:5-40 F, Sp
• Corequisite: BIT 285R the first time only
For Building Inspection 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. Take up to 16 credits total between BIT 281R and BIT 285R.

BIT 285R
Cooperative Correlated Class
1:1:0 F, Sp
• Corequisite: BIT 281R the first time only
For Building Inspection 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 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. Take up to 16 credits total between BIT 281R and BIT 285R.

CA 282R
Culinary Arts Internship
3-8:1:10-35 On Sufficient Demand
• Prerequisite: Culinary Arts Institute Director Approval; CA 1220
For students working toward an Associate of Applied Science Degree in Culinary Arts. 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. Eight hours of Internship work experience will be required toward graduation in the Culinary Arts degree.

CA 481R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: Approval of School of Business Career and Corporate Manager
For upper division students working towards a Bachelor of Science Degree in Hospitality Management with an emphasis in Food and Beverage. Provides opportunities to apply classroom theory on the job. Students work in a restaurant kitchen while enrolled at the college. 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 a Bachelor of Science Degree in Hospitality Management. Courses will be graded credit/no credit.

CAW 100R
Survey of Working with Wood
2:0:5 F, Sp
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.

CAW 281R
Cooperative Work Experience
1-8:0:5-40 F, Sp
• Corequisite: 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 objectives that improve present work performance. May be repeated twice for credit.

CAW 285R
Cooperative Correlated Class
1:1:0 F, Sp
• Corequisite: 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.

CJ 281R
Cooperative Work Experience
2-8:0:10-40 Su, F, Sp
• Prerequisite: Approval of School of Business Career and Corporate Manager
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.

CLSS 2100
Career and Major Exploration
2:2:0 Su, F, Sp
For students seeking help in the selection of majors and careers. Assesses and clarifies interests, skills, values, and personal characteristics. Explores college majors, careers, and the world of work. Integrates knowledge of self with career options. Teaches decision making skills to help students make well informed career decisions and goals. Develops an action plan for graduation.

CNS 281R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: 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.

CNS 481R
Internship Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: Department approval
Provides opportunity to use work experience to add to educational background and academic experience. A maximum of three hours may be counted towards graduation without prior written CNS Department approval.

COMM 282R
Internship
2-9:0.5:7.5-42.5 Su, F, Sp
• Prerequisite: Department approval
Provides an opportunity for students to get college credit by working in communication-related fields. Applies academic concepts to actual work experiences. Requires instructor approval and final report. Repeatable for a total of 9 credit hours.

COMM 482R
Internship
2-9:0.5:7.5-42.5 Su, F, Sp
• Prerequisite: Departmental Approval
For upper division students working toward a Bachelor of Arts or a Bachelor of Science degree in Integrated Studies with a Communication emphasis. Provides a transition from school to work where academic concepts are applied to actual practice through on-the-job experience commensurate with upper-division classroom instruction. Requires instructor approval and final report. Repeatable for a total of nine credits.

CRT 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: CRT 285R
Designed for Collision Repair 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. Provides experience in writing and completing individualized work objectives that improve present work performance. May be repeated as desired for interest.

CRT 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: 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 as desired for interest.

DMT 281R
Cooperative Work Experience
1-8:0:5-40 F, Sp
• Corequisite: 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.

DMT 285R
Cooperative Correlated Class
1:1:0 F, Sp
• Corequisite: 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.

DT 1000
Basic Drafting
2:2:0 Su, F, Sp
A beginning course for Drafting Technology students; students in the School of Computing, Engineering and Technology programs who need a related drafting class; and general education students wanting to explore a drafting class. Covers basic sketching, instruments and their use, lettering, geometric construction, dimensioning, multi-view drawings, and section views. Completers should be qualified to take any of the first-year drafting technology courses.

DT 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Prerequisite: First Year Drafting
For drafting students to receive actual on-the job work experience. Work assignments are set up with businesses and industries who are involved in drafting and design, construction or manufacturing. Two credits may apply toward graduation. Students receive pay for their work, but the real benefit is the on-the job experience.

DT 2850
Cooperative Correlated Instruction/Orientation
0.5:0.5:0 F
Designed to orient the student to opportunities offered by the school, department, community, and industry, and to assist cooperative work experience. Time is spent on the importance of working and communicating with others.

DT 2860
Cooperative Correlated Instruction/VICA
0.5:0.5:0 Sp
VICA is a first year class for Drafting Technology majors. Includes leadership training, parliamentary procedure, job interview skills, prepared speaking, extemporaneous speaking, and organizational skills. Upon completion, the student should understand the Skills USA-VICA organization and how it helps to build leadership skills.

DT 2870
Cooperative Correlated Instruction/Interview Preparation and Job Interview
1:1:0 F, Sp
Assists students in the development of job search skills. Students produce various forms of correspondence relating to the job search, including letters of introduction, follow up letters, letters acknowledging job acceptance and rejection, and resumes. Students complete exercises in interview techniques and in pre and post interview procedures. Students complete a portfolio as a final project.

EART 1000
Survey of Electrical Automation and Robotics Technology
2:2:0
An introductory course for those interested in exploring the electrical and robotics field. Familiarizes students with the fundamentals of electric-

ity. Includes career exploration, consumer awareness, manipulative skills, and craftsmanship.

EART 281R
Cooperative Work Experience
1-8:0:5-40
• Prerequisite: Approval of Department Chair
Provides paid on-the-job work experience that relates to Electrical Automation and Robotics Technology (EART) in the student's major. Work experience, the related class, and enrollment are coordinated by the EART Cooperative Coordinator. Completers must individually set, and complete, goals/learning objectives based on the job description from their work assignment.

EART 285R
Cooperative Correlated Class
1:1:0
• Prerequisite: 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.

ECFS 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: ECFS 285R
For ECFS majors. Provides paid, on-the-job 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 objectives that improve present work performance.

ECFS 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: ECFS 281R
For ECFS 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. Registration for this class is 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 or work or study.

ECT 1000
Survey of Electronics
2:2:0 F, Sp
An overview course for those unfamiliar with the field of electronics. Covers basic electrical theory, electronic devices, applications, and history. Emphasizes recent trends in the electronic industry and effects on everyday life. Includes lecture, demonstration, video presentation, and field trip.

ECT 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: ECT 285R
Provides paid, on-the job work experience in electronics and computer technology. Work experience and course enrollment are coordinated by the Cooperative Coordinator. Includes student, employer, and coordination evaluations, on-site work visits, written assignments; and oral presentations. Gives experience in writing and completing individualized work objectives that improve present work performance.

ECT 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: ECT 281R
Designed to identify on-the-job problems and to remedy those problems through in-class discussion and study. Studies identifying and maximizing service opportunities. Students register for this class with approval of the Cooperative Coordinator. Cooperative credits may be used as technical electives or in place of some of the laboratory classes if approved in advance by the department chairperson. 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.

ENGL 281R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: Approval of Cooperative Coordinator
Designed for English 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.

ENGL 481R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: Departmental approval, senior status
For senior English majors and minors. Provides transition from school to work where theories are applied to actual practice through meaningful, paid work experience. Three hours will apply toward graduation.

ENGL 482R
Internship
2-9:1:5-40 Su, F, Sp
• Prerequisite: Registered full or part-time student
Explores areas such as technical writing, teaching English abroad, television and other media, communications, and public relations. Uses approved, academically challenging positions. Varies depending on organization. Spans a month, a semester, or longer.

ENVT 282R
Environmental Internship
1-5:0:3-15 Su, F, Sp
• Prerequisite: Instructor permission
Allows students practical experience working at an environmentally related job. May be repeated for a maximum of five credits toward graduation.

FAC 281R
Cooperative Work Experience
1-8:0:5-40 F, Sp
• Corequisite: FAC 285R
For Facilities Management majors. Includes student, employer and coordinator evaluation, on-site work visits, written assignments, and oral presentations. Includes correlation of work experience and enrollment by a coop coordinator. Provides experience in writing and completing individualized work objectives improving present work performance.

FAC 285R
Cooperative Correlated Class
1:1:0 F, Sp
• Corequisite: FAC 281R
Allows FAC majors to correlate with Facilities Management Coordinator to gain proper work experience. Includes student, employer, and coordinator evaluations. Requires written assignments and oral presentations. Provides individualized work objectives to improve work and communications skills.

FAMT 281R
Cooperative Work Experience
2-9:1:5-40 F, Sp
• Prerequisite: 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.

FS 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: FS 285R
Designed for Fire Science majors. Provides paid, on-the job work experience. Work experience and the correlated class are coordinated by the Cooperative Coordinator and director who must approve enrollment. Includes student, employer, and coordinator evaluations, on site work visits, written assignments, and oral presentations. Gives experience in writing and completing individualized work objectives that improve present work performance.

FS 282R
Wildland Firefighter Internship
1:0:3 Su
• Prerequisite: FSF 1300 or departmental approval
Provides experience in fighting fires at wildfire and urban interface incidents. Studies wildland fire behavior, fire weather, and fire mitigation. Teaches size-up, chain of command, communications, strategy, and tactics. Includes develop-

ing water sources, learning engine tactics, understanding procedures for aircraft, firing and felling operations. Completers should develop skills beyond the entry level firefighter. A total of two credits may apply towards graduation.

FS 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: FS 281R
Designed for Fire Science majors. Identifies on-the job problems and provides remediation of those problems through in-class discussion and study. Studies identifying and maximizing service opportunities. Students register for this class with approval of the Cooperative Coordinator and director. 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.

FS 2910
Basic Firefighter Internship
2:0:10 Su, F, Sp
• Prerequisite: FSF 1330, FSF 1340, Instructor's recommendation and internship coordinator's approval.
For students who have completed the Recruit Candidate Academy courses and desire an opportunity to apply the knowledge, skills, and abilities learned in a realistic environment. Student interns will experience the fire service as a fully integrated member of a fire company in a career fire department. Additionally, the internship will emphasize the student's work ethic, attitude, and ability to adapt to highly stressful and sometimes dangerous situations.

FSF 1000
Survey of Fire and Rescue Emergency Services
3:3:0 Su, F, Sp
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. Develops basic emergency skills in hazard recognition, response organization, and fire extinguisher use.

HLTH 281R
Cooperative Work Experience
2-9:1:5-40 F, Sp
• Prerequisite: Approval of Cooperative Coordinator
For Community Health majors. Provides paid, on-the-job 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 objectives that improve present work performance. Credit is determined by the number of hours a student works during the semester. May be repeated for a maximum of nine credits.

HM 281R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: 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.

HM 2890
Industrial Work Experience
1-8:0:5-40 Su, F, Sp
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 481R
Cooperative Work Experience
2-8:0:10-40 Su, F, Sp
• Prerequisite: Approval of School of Business Career and Corporate Manager
For Bachelor of Science Degree students in Business Management or Hospitality Management. Provides opportunities to apply classroom theory on the job. Students work as 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. Three credits may be applied toward a Bachelor of Science degree in Business Management; six credits may be applied to the Hospitality Management degree. Course will be graded credit or no-credit.

HM 482R
Internship
2-8:0:10-40 Su, F, Sp
• Prerequisite: Approval of School of Business Career and Corporate Manager
For students working towards a Bachelor of Science Degree in Hospitality Management and the Business Management degree with the Hospitality pre-major. Provides a transition from school to work where learned theory is applied to actual practice through a meaningful on-the-job, non-paid experience commensurate with upper-division classroom instruction. Six hours of Internship work experience will be required toward graduation in the Hospitality Management pre-major.

HUM 281R
Cooperative Work Experience
2-9:1:5-40
• Prerequisite: Approval of Cooperative Coordinator
Designed for Humanities pre-major students. Credit is earned through paid work experiences in humanities. Students are responsible for obtaining their own employment situations. Students meet weekly with their Cooperative Instructor to cover course objectives and also set individualized objectives. Credit is determined by the number of hours a student works during the semester. *Note: A maximum of four cooperative credits may be applied toward the seven credits of electives required for the Humanities pre-major in the AA or AS degrees.

ISYS 281R
Cooperative Work Experience
2-8:0:10-40 Su, F, Sp
• Prerequisite: 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. Students shall meet monthly with a School of Business Career and Corporate Manager. Completers meet individually set goals. A total of six credits may be applied toward graduation with an AAS degree and three credits toward certificate programs.

ISYS 481R
Internship
2-8:0:10-40 Su, F, Sp
• Prerequisite: Approval of School of Business Career and Corporate Manager
For bachelor's degree students. Provides opportunities to apply classroom theory while students work as employees in a job that relates to their careers. Meet monthly with a School of Business Manager of Career and Corporate Development. Credit is determined by the number of hours a student works during the semester and completion of individually set goals. Four credits may be applied toward a Bachelor of Science Degree in business. Graded credit or no-credit.

ISYS 482R
Training and Development Internship
2-3:1:3-6 On Sufficient Demand
• Prerequisite: Instructor Approval and Matriculation into the Bachelor's Degree Program
Provides opportunities to intern in an approved educational or business environment where classroom theory and training experiences may be applied to meet training objectives. Requires weekly meetings with coordinator and other students in a classroom setting to share experiences and to receive direction. Credit is determined by the number of hours a student provides training during the semester. Completers should be prepared to apply intern experiences and skills to future training opportunities. Repeatable for up to three credits.

ISYS 483R
Computer Applications Internship
1-2:0:3-6 On Sufficient Demand
• Prerequisite: Upper division status and approval of department chair; ISYS 2350, 2360, 2370, 3270; CNS 2610
Applies classroom theory on the job by assisting other students with their computer problems in a lab situation while working in a School of Busi-

ness computer lab. Requires meeting with the School of Business Computer Center Director and assisting in other duties as assigned. Graded credit/no credit. Repeatable for up to two credits.

LANG 281R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: Approval of Cooperative Coordinator
Designed for Language 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.

LEGL 1010
Survey of Law
3:3:0 On Sufficient Demand
Covers the history and development of present-day law practice, including specialized areas of practice. Completers should be able to describe the American court system, know and use legal vocabulary, have a basic understanding of different substantive areas of law.

LEGL 281R
Cooperative Work Experience
2-8:0:10-40 Su, F, Sp
• Prerequisite: Approval from School of Business Career and Corporate Manager
Designed for paralegal majors to provide on-the-job work experience on a paid basis that will utilize the student's skills and abilities in the fields of law, law office, or other approved law related situations. 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.

LEGL 489R
Internship
2-8:0:10-40 F, Sp
• Prerequisite: Approval from School of Business Career and Corporate Manager
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.

LFSC 281R
Cooperative Work Experience
2-16:1:5-40 Su, F, Sp
• Prerequisite: Approval of Cooperative Coordinator
Designed for Biology 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.

LINE 1000
Survey of Lineman Technology
2:2:0 Not 02-03
An introductory course for those interested in the electrical field with an emphasis on the electrical utility trades. Gives a general overview of the lineman trade and its general course of study. Provides some hands on experience in wiring procedures, pole framing, circuit testing procedures, and transformer connections.

LINE 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: LINE 285R
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 objectives that improve present work performance.

LINE 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: LINE 281R
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.

MATH 281R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: 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.

MCT 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: MCT 285R
For Multimedia Communication Technology students to receive actual on-the-job work experience. Provides a transition from school-to-work where learned theory is applied to actual practice through a meaningful on-the-job paid experience. 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.

MCT 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: MCT 281R
For Multimedia Communication Technology students. Identifies on-the-job problems and provides opportunities for collective discussion of issues related to job coping skills, decision-making and leadership techniques. Includes job research techniques, self-assessment, sources of job prospects, written communication tools, appearance, interview techniques, and interpersonal relations.

MCT 481R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: MCT 485R
For Multimedia Communication Technology students to receive actual on-the-job work experience. Provides a transition from school to work where learned theory is applied to actual practice through a meaningful on-the-job paid experience commensurate with upper division classroom instruction. Includes student, employer, and coordinator evaluation, 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 a maximum of 8 credits toward graduation.

MCT 485R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: MCT 481R
For Multimedia Communication Technology students to receive actual on-the-job work experience. Provides a transition from school to work where learned theory is applied to actual practice through a meaningful on-the-job paid experience commensurate with upper division classroom instruction. Includes student, employer, and coordinator evaluation, 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 a maximum of 8 credits toward graduation.

MCT 489R
Internship
1-8:0:5-40 On Sufficient Demand
• Prerequisite: Instructor Approval
• Corequisite: MCT 485R
Provides opportunities to intern in an approved multimedia environment where classroom theory and training experiences may be applied. Credit is determined by the number of hours a student interns in a structured multimedia environment. Emphasizes successful work experience, especially problem-solving.

MET 281R
Cooperative Work Experience
1-8:0:5-40 Sp
• Prerequisite: DT 2600, ENGL 1010, ENGL 2020, MET 1300, MET 2400
• Corequisite: MET 285R
Provides paid, on-the-job work experience in the students 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 objectives that improve present work performance.

MET 285R
Cooperative Correlated Class
1:1:0 F, Sp
• Prerequisite: DT 2600, ENGL 1010, ENGL 2020, MET 1300, MET 2400
• Corequisite: MET 281R
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 presentations and written assignments. Completers should be better able to perform in their field of work or study.

MGMT 281R
Cooperative Work Experience
2-8:0:10-40 Su, F, Sp
• Prerequisite: 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 college. 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.

MGMT 481R
Cooperative Work Experience
2-8:0:10-40 Su, F, Sp
• Prerequisite: Approval from School of Business Career and Corporate Manager
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 six credit hours of cooperative work experience will apply toward graduation in any Business Management Specialization.

MGMT 482R
Internship
2-8:0:10-40 Su, F, Sp
• Prerequisite: Approval from School of Business Career and Corporate Manager
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 a meaningful internship experience. No more than six credit hours of internship work will apply toward graduation in any Business Management Specialization.

MUS 1100 XF
Fundamentals of Music
2:2:0 Su, F, Sp
Designed for non-music majors. Examines the fundamentals of music such as keys, scales, intervals, rhythms, meters, and terminology. Completion of a second course is required to satisfy the fine arts requirement (see Graduation section of catalog).

NURS 281R
Cooperative Work Experience
2-9:1:5-40 F, Sp
• Prerequisite: Approval of Cooperative Coordinator
Students must be currently enrolled in the nursing program. 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.

NURS 285R
Cooperative Related Instruction
1:1:0 F, Sp
• Prerequisite: Approval of Cooperative Coordinator and concurrent enrollment in NURS 281R
This course is designed to identify on-the-job opportunities and problems of cooperative work experience students, and provide opportunities for in-class discussion and study.

PES 281R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: Approval of Cooperative Coordinator
Designed for Physical Education and Recreation majors. Provides paid on-the-job experiences in the student's major. 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. Credit is determined by the number of hours a student works during the semester. May be repeated for a maximum of 16 credits.

PHSC 1000 PP
Survey of Physical Science
3:3:0 Su, F, Sp
Surveys 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
2-9:1:5-40 Su, F, Sp
• Prerequisite: 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.

PLSC 480R
Internship
2-9:1:5-40 On Sufficient Demand
• Prerequisite: PLSC 1100
Provides opportunities for internship experience in political organizations, government offices, and non-governmental organizations. May be repeated for a maximum of 9 credits toward graduation.

PSY 4890
Senior Internship
3:1:6 F, Sp
• Prerequisite: Senior standing in the Behavioral Science Department, (PSY 3020 or SOC 3020) and (ENGL 2010 or ENGL 2020)
Allows Behavioral Science students with non-clinical orientation to receive psychology credits for interning 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. Internships approved by faculty and written contracts must be signed.

SOC 4890
Senior Internship
3:1:6 F, Sp
• Prerequisite: Senior standing in the Behavioral Science Department, (PSY 3020 or SOC 3020) and (ENGL 2010 or ENGL 2020)
Allows Behavioral Science students to receive sociology credits for interning in a governmental, corporate, or private agency apart from their regular employment. Provides students with practical and research experience over the course of the 15-week semester. Work must be supervised by agency representative. Internships, approved by faculty and written contracts, must be signed.

TECH 481R
Cooperative Work Experience
2-4:0:10-20 Su, F, Sp
• Prerequisite: Completion of 28 technical credits at Associate level; TECH 3700, 4000, and 4400; ENGL 4310
Provides a leadership transition from college to work where learned theory is applied to actual practice through a meaningful on-the-job paid experience. Includes student, employee and coordinator evaluation, on-site work visits, written assignment, and oral presentations. Completers should obtain experience in establishing and accomplishing individualized work objectives that improve work performance. Two credit hours may be used for credit.

TECH 485R
Cooperative Work Experience Correlated Class
1:1:0 Su, F, Sp
- Prerequisite: Completion of 28 technical credits at Associate level; TECH 3700, 4000, and 4400; ENGL 4310

Identifies on-the-job managerial problems through class discussion and study. Teaches resume and job interview letter writing, interviewing techniques, and personal and career goal setting. Provides experience in managerial problem solving. May include lectures, guest speakers, video tapes, role playing, case analysis, oral presentations, and written assignments. One credit hour may be used for credit.

WELD 281R
Cooperative Work Experience
1-8:0:5-40 F, Sp
- Corequisite: WELD 285R

Designed for Welding Technology majors. Provides paid, on-the job work experience in the student's major. Work experience and the correlated class are coordinated and approved by the Cooperative Coordinator. Includes student, employer, and coordinator evaluations, on-site work visits, written assignments, and oral presentations. Gives experience in writing and completing individualized work objectives that improve present work performance.

WELD 285R
Cooperative Correlated Class
1:1:0 F, Sp
- Corequisite: WELD 281R

For Welding Technology majors. Designed to identify on-the-job problems and provide 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. Methods include 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.

CULINARY ARTS

Director: Greg Forte

Office: MC 007f
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Faculty:

Associate Professor
Greg Forte
Chef Instructor
Diana Fallis
Troy Wilson
Catering Manager
Connie Bullock

Advisor: Julie Slocum
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Advisory Committee: Kent Anderson, Chef/Owner, Chef's Table; Rob Morgan, Head Chef, Skyroom Restaurant, BYU; Ross May, Kitchen Manager, Ruby River Steak House; Brian Peterson, Owner, Bryson Bakery; Jane Becker, Manager, Smith's Food and Drug; Raymond Alexander, Executive Chef, Provo Marriott; Peter Villano, Executive Chef, Riverside Country Club; Don Heidel, Executive Chef, The Homestead Resort; Melva Sien, Utah Restaurant Association; Laura Heald Watson, Food and Nutrition Services Director, Utah Valley Regional Medical Center; Brad Burton, Nicholas and Company; Chantelle Kukahiko-Hughey, Student; Guy Whitely-Ross, Chef, Chili's; Carla Leis.

School of Computing, Engineering and Technology

Dean: Thomas McFarland
Office: CS 720b
Telephone: 801-863-8995

CAREER OPPORTUNITIES

The Culinary Arts Institute at UVSC offers premier training in culinary arts for those students interested in cooking or creating foods in many areas such as full-service restaurants; hotels; private catering; airlines; institutional facilities such as schools, hospitals, and care facilities; as well as fast foods.

The graduates of the Institute are in high demand and are recruited by owners and managers of well-known facilities throughout the country.

PROGRAMS

An Associate in Applied Science Degree in Culinary Arts is offered. A Bachelor of Science Degree in Hospitality Management with a Food and Beverage specialization is also available for students seeking a four-year degree. See the Hospitality Management section of the UVSC catalog for required courses and details. (See Graduation Requirements in catalog for definitions.) Enrollment in the Culinary Arts Institute is limited. Permission is required to enroll in cooking classes.

AAS IN CULINARY ARTS — 68 CREDITS

Matriculation Requirements:

1. Completion of the following courses with a grade of C- or better. CA 1480 (including ServSafe certification); HM 1010; MAT 0990; ENGH 0990; CTRS 0990.
2. Complete 600 documented hours work in the industry; 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:			17 Credits
• MGMT	2200	Written Business Communication	3
• ACC	2010	Financial Accounting	3
• ENGL	1010	Introduction to Writing	3
• MGMT	3000	Organizational Behavior	3
• CA	1150	Nutrition and Food Service	3
• PES	1097	Fitness for Life	2
Discipline Core Requirements:			**51 Credits**
• HM	1010	Introduction to Hospitality Industry	3
• CA	1480	Sanitation and Table Service	3
• CA	1120	Cooking Skills Development	4.5
• CA	1130	Baking Skills Development	4.5
• CA	1310	Purchasing and Storeroom Management	3
• CA	1230	Professional Kitchen I—Cooking	4.5
• CA	1240	Professional Kitchen I—Baking/Pastry	4.5
• CA	2120	Professional Kitchen II	
or CA	282R	Internship*	8
• CA	2320	Professional Kitchen III	9
or CA	282R	Internship	
• CA	2430	Menu/Facilities Design and Beverage Management	3
• HM	3640	Food & Beverage Controls	3
• MGMT	2250	Job Application and Advancement Skills	1
or MGMT	3890	Career Preparation	

Graduation Requirements:

1. Completion of a minimum of 68 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 UVSC.
4. Completion of GE and specified departmental requirements.

Notes:
Students are responsible for completing all prerequisite courses.
*The CA 282R Internship course can be taken one time only.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

CA 1120
Cooking Skills Development
4.5:2:7.5

- Prerequisite: Matriculation and acceptance into the Culinary Arts Institute
- Corequisite: CA 1130, CA 1310

Teaches basic food service skills in a commercial kitchen environment. Stresses the use of standardized recipes and procedures. Provides daily end product critiquing. Includes rotation between stock and sauce station, soup station, garde manger station, and breakfast station. Emphasizes sanitary food handling practices and professional work habits.

CA 1130
Baking Skills Development
4.5:2:7.5

- Prerequisite: Matriculation and acceptance into the Culinary Arts Institute
- Corequisite: CA 1120 and CA 1310

Teaches basic baking and pastry skills in a commercial kitchen environment. Stresses the use of standardized recipes and procedures. Provides daily end product critiquing. Includes simple yeast-raised products, quick breads, pies, and custards. Emphasizes sanitary food handling practices and professional work habits.

CA 1150
Nutrition and Food Service
3:3:0 — Sp

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 1230
Professional Kitchen I—Cooking
4.5:2:7.5

- Prerequisite: CA 1120 and CA 1130
- Corequisite: CA 1240

Continuation of CA 1120. Emphasizes proper preparation of entree, starch, vegetable, and small sauce cookery, along with cold and hot hors d'oeuvres and canapes. Provides daily end product for evaluation. Includes rotation between vegetable/starch station, garde manger station, and entree station.

CA 1240
Professional Kitchen I—Baking/Pastry
4.5:2:7.5

- Prerequisite: CA 1120 and CA 1130
- Corequisite: CA 1230

Continuation of CA 1130. Emphasizes proper preparation of plated desserts, cakes and torts, petit fours, and laminated doughs. Studies the use and role of value added dessert items, and banquet and catering dessert requirements.

CA 1310
Purchasing and Storeroom Management
3:3:0 F, Sp
• Corequisite: CA 1120 and CA 1130
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 1480
Sanitation and Table Service
3:3:0 F, Sp
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 2120
Professional Kitchen II
9:4:15 F, Sp
• Prerequisite: CA 1230 and CA 1240
Teaches the creation of soups, salads, appetizers, hot and cold entrees, and baked items from French, Italian, and Pacific Rim cuisine. Studies cold food methods, techniques, and presentations using modern and classical methods of a Garde Manger.

CA 2320
Professional Kitchen III
9:4:15 F, Sp
• Prerequisite: CA 2120
Surveys regional American cooking with an emphasis on contemporary techniques and ideas. Teaches planning and production of salads, soups, appetizers, entrees, and side-dishes. Emphasizes specialty baked, pastry, and dessert products.

CA 2430
Menu/Facilities Design and Beverage Management
3:3:0 F
• Prerequisite: 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 2750
Baking
3:2:4 On Sufficient Demand
• Prerequisite: 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
5:3:6 On Sufficient Demand
• Prerequisite: (CA 1120 and CA 1130) or 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, torts, pastries, chocolate, and desserts. Provides daily end-product critiquing.

CA 282R
Culinary Arts Internship
3-8:1:10-35 On Sufficient Demand
• Prerequisite: Culinary Arts Institute Director Approval; CA 1230 and CA 1240
For students working toward an Associate of Applied Science Degree in Culinary Arts. 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. Eight hours of Internship work experience will be required toward graduation in the Culinary Arts degree.

CA 296R
Culinary Arts Seminar
1-3:1-3:0-3 On Sufficient Demand
• Prerequisite: Instructor Approval
Provides short courses, workshops, and special programs in Culinary Arts topics. Repeatable for up to three credits toward graduation.

CA 298R
ACF
1:0.5:2 F, Sp
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.

CA 299R
VICA
1:0.5:2 F, Sp
For Culinary Arts students who are interested in participating with a national vocational student organization (Vocational Industrial Clubs of America) that develops social awareness, civic responsibility, vocational and leadership skills through participation in educational, vocational, civic, recreational, and social 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 481R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: Approval of School of Business Career and Corporate Manager
For upper division students working towards a Bachelor of Science Degree in Hospitality Management with an emphasis in Food and Beverage. Provides opportunities to apply classroom theory on the job. Students work in a restaurant kitchen while enrolled at the college. 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 a Bachelor of Science Degree in Hospitality Management. Courses will be graded credit/no credit.

DANCE

Department of Dance

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Faculty:
Associate Professor
Kathie Debenham
Assistant Professor
Kim Strunk
Doris Trujillo
Instructor
Nichole Ortega
Lecturer
Amy Markgraf-Jacobson
Jacqueline Colledge
Artist in Residence
Scott Asbell

School of Humanities, Arts, and Social Sciences

Dean: William W. Cobb, Jr.
Office: LA 209d
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For *Elite Precision Team* see the Physical Education and Recreation section of the catalog.

MISSION STATEMENT

The mission of Utah Valley State College Department of Dance is to foster academic and artistic excellence through an intensive technical and reflective study of dance. Anchored in a common core curriculum with several areas of emphasis, our program provides a rich and stimulating environment where students cultivate their technical, aesthetic, creative, and scholarly potential. We value superior teaching which promotes dance as an artisitc and cultural expression that has the power to enrich and transform the individual, community, and society.

PERFORMING OPPORTUNITIES

Dance students have the opportunity to audition for performing groups in the areas of ballet, modern, and ballroom. Performance opportunities with these groups are varied and offer adjudication of both performance and choreography in form specific settings. Contact the Dance Department for more information on the performing groups.

PROGRAMS

In addition to career training, the Dance Department provides opportunities for all interested students to explore the many forms of dance as elective and/or general education credit. The study of dance offers personal and cultural enrichment for majors and non majors alike and allows students to augment their physical skills as they study dance in relationship to the self, society, and other arts and disciplines. Contact Doris Trujillo at 801-863-6444 for advisement.

AS PRE MAJOR IN DANCE — 62 CREDITS

General Education Requirements: 35 Credits
- Complete General Education requirements as detailed in the General Education section of this catalog, using DANC 2110 as the Fine Arts distribution requirement.

Discipline Core Requirements: 23 Credits
- DANC 1160 Music for Dancers 1
- DANC 127R Ballet Technique I (2 semesters) 6
- DANC 1330 Studio Workshop-Creative Process in Dance 1
- DANC 143R Modern Dance Technique and Theory I 3
- DANC 144R Modern Dance Technique and Theory I 3
- DANC 1510 Intermediate Jazz Dance 1
- DANC 1610 Dance Conditioning 1
- DANC 2330 Improvisation 1
- DANC 2340 Composition 2
- DANC 265R Fundamentals of Movement 2
- DANC 2670 Introduction to Laban Studies 2

Elective Requirements: 4 Credits

Complete 2 credits from the following: 2
- DANC 229R Utah Regional Ballet Repertory
- DANC 246R Synergy Dance Company
- DANC 476R Ballroom Dance Company Tour Team

Complete 2 credits from the following: 2
- DANC 1560 African Dance I
- DANC 1570 African Dance II
- DANC 1710 International Ballroom Dance I
- DANC 1720 Latin Ballroom Dance I
- DANC 2700 American Social Dance II
- DANC 2710 International Ballroom Dance II
- DANC 2720 Latin Ballroom Dance II
- DANC 1520 Folk Dance I
- DANC 1530 Folk Dance II
- DANC 1540 Clogging I
- DANC 1580 Tap Dance I
- DANC 1700 American Social Dance I
- DANC 1780 Country Western Dance I
- DANC 1790 Country Western Dance II
- DANC 221R Pointe II
- DANC 2250 Character Dance I
- DANC 2260 Character Dance II
- DANC 247R Repertory
- DANC 250R Advanced Jazz Dance
- DANC 327R Ballet Technique III
- DANC 370R American Social Dance III
- DANC 371R International Ballroom Dance III
- DANC 372R Latin Ballroom Dance III

Graduation Requirements:
1. Completion of a minimum of 62 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 UVSC.
4. Completion of GE and specified departmental requirements.

BA/BS IN INTEGRATED STUDIES — 124 CREDITS

The following Integrated Studies emphases are available (see the Integrated Studies section of this catalog for complete degree requirement listings):
- Ballet
- Ballroom Dance
- Modern Dance

The following degrees were approved by the State Board of Regents June 2005. See department for details:
- BFA in Dance
  - Ballet Emphasis
  - Modern Dance Emphasis
- BS Dance Education
- BS Movement Studies
  - Ballroom Dance emphasis

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

DANC 1010 FF
Dance as an Art Form
3:3:0 Su, F, Sp
For students with an interest in 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. Includes guest lecturers, demonstration, and studio experiences.

DANC 1100 GF
Beginning Ballet
1:0:2 Su, F, Sp
For all students without previous ballet experience. Emphasizes ballet discipline, develops posture, alignment, and muscular control to improve health and appearance of physical body.

DANC 1160 GF
Music for Dancers
1:0.5:2 Sp
Presents a fundamental approach to the basic elements of music with an emphasis on its relationship to dance. Studies simple and complex rhythmic patterns, rhythmic analysis of select world music styles (African, Eastern European, and American Funk rhythms), vocalizing, instrumentation, score reading, musical structure, and compositional principles. Includes vocal, instrumental, and movement participation; lecture; writing; and discussion.

DANC 1200 GF
Beginning Modern Dance
1:0:2 Su, F, Sp
Gives students experience in modern dance technique, emphasizing locomotor skills and movement expression. Introduces elements of dance, time, space, and energy.

DANC 127R
Ballet Technique I
3:1:6.5 F, Sp
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. Successful completers should be fully prepared to participate in a 227R ballet course. May be repeated for a total of 18 credits.

DANC 1330 GF
Studio Workshop—Creative Process in Dance
1:0.5:1.5 F
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 GF
Introduction to Modern Dance Technique and Theory
2:1:3 F, Sp
For students desiring to increase their 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. May be repeated for a total of four credits toward graduation.

DANC 143R GF
Modern Dance Technique and Theory I
3:1:6.5 F
• Prerequisite: Audition
First level modern dance technique for Dance majors. Focuses on development of solid foundational skills in modern 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.

DANC 144R GF
Modern Dance Technique and Theory I
3:1:6.5 Sp
• Prerequisite: DANC 143R
First level modern dance technique for Dance majors. Focuses on development of solid foundational skills in modern 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.

DANC 1500 GF
Beginning Jazz Dance
1:0:2 Su, F, Sp
Gives students experience in jazz dance including rhythms, style, and jazz techniques. Includes basic jazz terminology

DANC 1510 GF
Intermediate Jazz Dance
1:0:3 Su, F, Sp
• Prerequisite: DANC 1500
For students who have fundamental dance skills and basic jazz techniques. Teaches intermediate jazz technique, style and rhythm. Increases coordination, stamina, strength and flexibility through appropriate principles of jazz training.

DANC 1520 GF
Folk Dance I
1:0:2 F, Sp
Presents music, dance steps, and styles of folk dances from different countries. Teaches basic dance formations, positions, and terminology.

DANC 1530 GF
Folk Dance II
1:0:2 Sp
• Prerequisite: 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 GF
Clogging I
1:0:2 F, Sp
Teaches basic steps, styling and history of clogging. Includes dances and freestyle clogging choreography.

DANC 1550 GF
Clogging II
1:0.5:1.5 Sp
• Prerequisite: 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 1560
African Dance I
1:0:2 F
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.

DANC 1570
African Dance II
2:1:3 Sp
• Prerequisite: DANC 1560 or previous African Dance experience
Explores dance styles and rhythms 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.

DANC 1580 GF
Tap Dance I
1:0:2 F, Sp
Introduces basic steps and rhythms of tap dance. Reviews the history of this American theatrical dance form.

DANC 1590
Hip-hop Dance I
1:0:2 F, Sp
Explores a variety of Hip-hop styles and moves to the latest music. Introduces students to fundamental dance techniques. Discusses Hip-hop as a cultural movement.

DANC 1610 GF
Dance Conditioning
1:0.5:2.5 Su, F, Sp
For dance students enrolled in modern dance, ballet, jazz, or ballroom dance classes and for students interested in dance-specific conditioning. A beginning course in dance conditioning. 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.

DANC 1700 GF
American Social Dance I
1:0:2 Su, F, Sp
For students with no prior American Social Dance experience. Teaches 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. Successful completers will have a good general knowledge of Bronze level curriculum.

DANC 1710 GF
International Ballroom Dance I
1:0:2 Su, F, Sp
For students seeking ballroom dance experience. 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. Successful completers will have a good general knowledge of Bronze level curriculum.

DANC 1720 GF
Latin Ballroom Dance I
1:0:2 Su, F, Sp
For students seeking Latin Ballroom Dance experience. Teaches beginning (Bronze) level patterns of International Style Latin Rumba, Samba, and Cha Cha. Introduces correct rhythm, poise, footwork, and foot positions. Successful completers will have a good general knowledge of Bronze level curriculum.

DANC 1780 GF
Country Western Dance I
1:0:2 Su, F, Sp
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 GF
Country Western Dance II
1:0:2 F, Sp
• Prerequisite: 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 2110 FF
Orientation to Dance
3:2:2 F, Sp
• Prerequisite: DANC 1010
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 pre-major.

DANC 221R
Pointe II
1:0:3 Su, F, Sp
• Prerequisite: DANC 227R
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.

DANC 2250 GF
Character Dance I
1:0:3 F
• Prerequisite: Intermediate equivalent skill level to be determined by audition
• Corequisite: (DANC 127R, DANC 227R) or (DANC 243R, DANC 244R) or (DANC 141R, DANC 144R)
First of a two-semester sequence. Must be taken in sequence. For ballet students at an intermediate or higher skill level. Studies theatre dance based on ethnic styles within ballet performance context.

DANC 2260 GF
Character Dance II
1:0:3 Sp
• Prerequisite: DANC 2250
• Corequisite: (DANC 127R, DANC 227R) or (DANC 243R, DANC 244R) or (DANC 141R, DANC 144R)
Second of a two-semester sequence course. Must be taken in sequence. For ballet students at an intermediate or higher skill level. Studies theatre dance based on ethnic styles within ballet performance context.

DANC 227R
Ballet Technique II
3:1:6.5 F, Sp
• Prerequisite: DANC 127R or advanced equivalent skill level - to be determined by audition.
For advanced 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.

DANC 229R
Utah Regional Ballet Repertory
2:0:6 F, Sp
• Prerequisite: Advanced/Professional Skill level; determined by audition
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. Completers should be qualified to perform as a competent corps de ballet member. May be repeated for a total of 12 credits.

DANC 2330
Improvisation
1:0:3 Sp
• Prerequisite: DANC 1330
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.

DANC 2340
Composition
2:1:3 F
• Prerequisite: DANC 2330
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.

DANC 243R
Modern Dance Technique and Theory II
3:1:6.5 F
• Prerequisite: by audition
Second level modern dance technique for Dance majors. 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.

DANC 244R
Modern Dance Technique and Theory II
3:1:6.5 Sp
• Prerequisite: DANC 243R
Second level modern dance technique for Dance majors. Focuses on development of technical and performance skills in modern 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 twice for 9 credits towards graduation.

DANC 246R GF
Synergy Dance Company
2:1:3 F, Sp
• Prerequisite: Audition required
• Corequisite: None, but DANC 243R recommended
For members of Synergy Dance Company. Studies modern dance technique, performance composition and improvisation. Presents choreography in a formal concert setting. Includes lecture - demonstrations for local schools and other interested groups. Class may be repeated three times for a total of eight credits.

DANC 247R
Repertory
1:0:3
• Prerequisite: By Audition
• Corequisite: DANC 143R, DANC 144R, DANC 243R, or DANC 244R
For students with advanced technical, performance, and artistic skills in Modern Dance interested in performing professional choreographic works. Emphasizes study and performance of 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 250R
Advanced Jazz Dance
2:1:3.5 F, Sp
• Prerequisite: DANC 141R
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 265R
Fundamentals of Movement
2:1:2 F
• Prerequisite: DANC 1200 recommended
For students and community members who want to move 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 four credits total toward graduation.

DANC 2670
Introduction to Laban Studies
2:1:2 Sp
• Prerequisite: DANC 265R
For all dance students and others interested in understanding how the components of movement combine to create functional and expressive movement statements. 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 Irmgard Bartenieff. Utilizes physical performance and observation methods. Emphasizes the process of perceiving and making meaning of human movement from a variety of contexts.

DANC 2700 GF
American Social Dance II
1:0:3 Su, F, Sp
• Prerequisite: DANC 1700 or equivalent skill level
For students with Bronze level American Social Dance experience or equivalent. Teaches intermediate (Silver) level patterns of American Social Dance including Foxtrot, 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.

DANC 2710 GF
International Ballroom Dance II
1:0:3 Su, F, Sp
• Prerequisite: DANC 1710 or equivalent skill level
For students with Bronze level International Ballroom Dance experience. Teaches the intermediate (Silver) level patterns of International Style Waltz, Quickstep, Tango, Foxtrot, 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.

DANC 2720 GF
Latin Ballroom Dance II
1:0:3 Su, F, Sp
• Prerequisite: DANC 1720 or equivalent skill level
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.

DANC 275R GF
Ballroom Dance Back-Up Team
1:0:3 Su, F, Sp
For students with or without prior ballroom dance team experience. Teaches American and International techniques as a performance discipline. Includes choreography, 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. One credit may apply toward the AAS degree and two credits toward the AS degree.

DANC 321R
Pointe III
1:0:3 F, Sp
• Prerequisite: Advanced equivalent skill level to be determined by audition.
• Corequisite: 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 toward graduation.

DANC 327R
Ballet Technique III
3:1:6.5 F, Sp
• Prerequisite: 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.

DANC 3400 XF
Dance in the Elementary School
2:1:2 Su, F, Sp
• Prerequisite: DANC 1200
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 Dance Technique and Theory III
3:1:6.5 Not 05-06
• Prerequisite: By audition
For students interested in building technical, performance, and theoretical understanding and skills in modern dance. 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.

DANC 342R
Modern Dance Technique and Theory III
3:1:6.5 Not 05-06
• Prerequisite: DANC 341R or by audition
For students interested in building technical, performance and theoretical understanding and skills in modern 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.

DANC 3560
World Dance Forms
2:1:2 Sp
Introduces dance forms of various world cultures. Emphasizes the cultural context for dance and the particular stylistic indicators for the dance forms studied. Includes African-based dance as well as folk dance forms. Focuses on developing appreciation for the diversity of dance as a participative and performance art. Includes lecture and participation.

DANC 3630
Dance History
3:3:0 F
• Prerequisite: DANC 2110
Introduces the art of dance in the Western tradition. Emphasizes the relationship of dance to lineage-based, ancient, medieval, Renaissance, Baroque, Classical, Romantic, and Modern cultures. Explores keystone Western 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
Advanced Fundamentals of Movement
2:1:2 F
• Prerequisite: DANC 265R and DANC 2670
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 3670
Movement Analysis
3:3:0 Sp
• Prerequisite: DANC 2670 or equivalent, DANC 265R or equivalent
An advanced survey course in movement analysis. Focuses on application of the concepts and theories of Laban Movement Analysis in the context of observing, recording, analyzing, and making meaning from human body movement. Includes in-depth study of motif score writing and applying Body, Effort, Shape and Space Harmony paradigms. Utilizes physical performance and written and verbal observation methods. Examines application to disciplines that concern themselves with human movement behavior such as behavioral sciences, theater, communications, human performance, human development, business, and education.

DANC 370R
American Social Dance III
1:0:3 F, Sp
• Prerequisite: DANC 2700
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.

DANC 371R
International Ballroom Dance III
1:0:3 F, Sp
• Prerequisite: DANC 2710
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 successful completers will develop a general knowledge of Gold level curriculum. Second semester successful completers will develop an in-depth knowledge of Gold level curriculum. Must be repeated for two credits toward graduation.

DANC 372R
Latin Ballroom Dance III
1:0:3 F, Sp
• Prerequisite: DANC 2720
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, amounts of turn, Cuban action, and movement principles. First semester successful completers will develop a general knowledge of Gold level curriculum. Second semester successful completers will develop an in-depth knowledge of Gold level curriculum. Must be repeated for two credits toward graduation.

DANC 3730
American Social Dance Teaching Methods
2:2:0 Not 05-06
• Prerequisite: DANC 1700 or equivalent skill level, DANC 2700 or equivalent skill level
For dance majors and other students with an interest in teaching social dance. Focuses primarily on 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. Completers should be able to adequately teach social dance in either a formal or informal setting.

DANC 376R
Ballroom Dance Company Reserve Tour Team
2:0:6 F, Sp
• Prerequisite: 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.

DANC 421R
Pointe IV
1:0:3 Not 05-06
• Prerequisite: Advanced equivalent skill level to be determined by audition
• Corequisite: 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 complex combinations. Explores advanced levels of styles from classical and contemporary repertoire. Develops virtuosity en pointe. Completers will have skills necessary to perform at a professional technical skill level. Includes guest teachers. May be repeated for a total of six credits toward graduation.

DANC 423R
Pointe V
1:0:3 Not 05-06
• Prerequisite: DANC 321R or to be determined by audition
• Corequisite: 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.

DANC 427R
Ballet Technique IV
3:1:6.5 Not 05-06
• Prerequisite: DANC 327R or advanced equivalent skill level to be determined by audition
• Corequisite: 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.

DANC 428R
Ballet Technique V
3:1:6.5 Not 05-06
• Prerequisite: DANC 427R or advanced equivalent skill level to be determined by audition
• Corequisite: 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.

DANC 441R
Modern Dance Technique and Theory IV
3:1:6.5 Not 05-06
• Prerequisite: By audition
An advanced level course for focused students interested in building technical, performance, and theoretical understanding and skills in modern dance. 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 towards graduation.

DANC 442R
Modern Dance Technique and Theory IV
3:1:6.5 Not 05-06
• Prerequisite: DANC 441R or by audition
A capstone technique course for students interested in rigorous technical, performance, and theoretical training. Emphasizes advanced performance sequences and progressions that utilize technical, kinesthetic, and expressive skills. Includes challenging spacial, rhythmical, 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.

DANC 4740
International Ballroom Dance Teaching Methods
3:3:0 Not 05-06
• Prerequisite: DANC 371R, DANC 3730
For Dancesport majors and other students interested in teaching International Ballroom classes. Covers technical and theoretical aspects of all basic figures in Waltz, Foxtrot, Quickstep, and Tango 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 4750
Latin Ballroom Dance Teaching Methods
3:3:0 Not 05-06
• Prerequisite: DANC 372R, DANC 3730
For Dancesport majors and other students interested in teaching International Latin classes. Covers technical and theoretical aspects of all basic figures in Rumba, Samba, Paso Doble, Jive and Cha Cha. Focuses on areas such as Footwork, Rhythm, and Leads and Follows. 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
2:0:6 F, Sp
• Prerequisite: Audition
For students with advanced Ballroom Dance Team experience. Audition required. 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 eight credits toward graduation.

DANC 4880
Current Issues in Dance
3:3:0 Sp
• Prerequisite: DANC 3630 and upper-division status
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.

DANC 4920
Dance as Cultural Practice
3:3:0 F
• Prerequisite: DANC 2110 and (DANC 365R or DANC 3670)
Designed for students with an interest in dance and cultural representation. 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. Explores the effect of dance as cultural representation on society. Emphasizes critical theories of dance, representation, identity, feminism, and post-modernism. Requires student presentation of research project.

DENTAL HYGIENE

Department of Dental Hygiene

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Christina Veit
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CAREER OPPORTUNITIES

Dental hygienists, under the supervision of licensed dentists, provide preventive dental care to patients such as dental prophylaxis, topical fluoride applications, pit and fissure sealants, administration of local anesthetics, dental radiographs and teaching patients plaque control procedures. Dental hygienists work in private dental practices as well as in school systems, public health agencies, Federal and State agencies, hospitals, nursing homes, the World Health Organization, and foreign governments.

PROGRAM OVERVIEW

Admission to UVSC does not constitute admission to the Dental Hygiene Program. Admission to the Dental Hygiene Program requires a separate and competitive admission process.

The Dental Hygiene program is a two-year program leading to an Associate in Applied Science degree. Upon successful completion of the program, graduates must pass the national, regional and state board examinations to apply for Licensure. Applicants for Licensure in Utah must "produce satisfactory evidence of good moral character as it relates to the practice of...dental hygiene;" (State of Utah Dentists and Dental Hygienists Act Title 58 Chapter 7-7.1). This act includes conviction of a felony or violating the Utah Controlled Substance Act as unprofessional conduct. Applicants to the program who have questions regarding their potential for Licensure should contact the Utah Division of Occupational and Professional Licensure.

Utah Valley State College has been granted accreditation status of "approval without reporting requirements" by The Commission on Dental Accreditation of the American Dental Association, (211 East Chicago Ave., Chicago, IL 60611, (312) 440-4653).

Program Objectives

Upon successful completion of the program, each graduate should be able to:

1. Provide comprehensive dental hygiene services which meet community needs in a variety of settings.
2. Apply the dental hygiene process of care in organizing and providing dental hygiene care.
3. Integrate biological and psychosocial concepts in planning appropriate dental hygiene care.
4. Incorporate ethical, legal, and professional responsibilities into dental hygiene practice.
5. Demonstrate knowledge of infection control principles while performing dental hygiene services.
6. Communicate orally and in writing with patients, other members of the health care team, and community groups.
7. Demonstrate critical thinking and self-assessment skills in order to continually improve knowledge and practice.
8. Demonstrate a commitment to lifelong learning and professional development.

PROGRAM INFORMATION

Students are required to follow departmental infection control policies and procedures that are based on OSHA regulations and CDC recommendations. They must meet the health and safety requirements participating facilities require of their employees. These requirements must be met prior to enrollment in Dental Hygiene 1010:

1. Documentation of current immunization for Tetanus, Measles, Mumps, Rubella, and Hepatitis B. Students may refuse any immunization by signing a waiver and release from liability. Immunization may also be waived with documentation of acceptable titer or written documentation from a physician of immunization risk.
2. Negative Mantoux for tuberculosis; negative chest x-ray if Mantoux is contra indicated/positive.
3. Current CPR certification (American Heart Association CPR for Health Care Providers, American Red Cross Health Care Provider, or National Safety Council); certification must remain current throughout academic program.

Students will have professional liability insurance through UVSC's comprehensive liability insurance policy. This liability insurance is in effect when students are performing within the scope of their assigned clinical/laboratory activities and under the supervision of Department of Dental Hygiene faculty and supervising dentists.

The Department of Dental Hygiene adheres to UVSC policy allowing students, staff or faculty with AIDS, ARC, or HIV to participate in all phases of College life within established College policies. The Department will respect the confidentiality of individuals with AIDS, ARC, or HIV insofar as the safety of others is not in question. College policy is not to test students, faculty or staff for the AIDS virus. See Policy A-9.1 for full college policy. State Licensure requirements may consider health status. Applicants with questions regarding Licensure policies should contact the licensing division of the state(s) in which they intend to seek Licensure following graduation.

Costs for the Dental Hygiene program include a $2,675 class fee per semester for 4 semesters, in addition to UVSC tuition and laboratory fees (these costs are subject to change). Students are required to purchase their own dental instruments, some clinical supplies, and uniforms. Students are responsible for transportation to the MATC clinic and other clinical sites, as well as other field experiences and any state, regional or national boards and licensing.

The dental hygiene program is challenging academically and in the amount of time involved on campus and at clinical experiences. Students should plan for some evening and weekend clinical experiences in dental hygiene courses. Students will provide patient care in a clinical setting. While volunteer patients come to the clinic for treatment, students may have to seek patients for some clinical experiences.

Students will be informed of additional departmental policies following admission to the program.

ADMISSION REQUIREMENTS:

Admission to UVSC does not constitute admission to the Dental Hygiene Program. Admission to the Dental Hygiene Program requires a separate and competitive admission process.

For specific admission criteria, please contact the Department of Dental Hygiene at 801-863-7536 or e-mail request for information to manninlk@uvsc.edu or see our departmental website <www.uvsc.edu/dent/>.

All applicants will be notified by mail of their admission status. No telephone or in-person requests for admission status will be answered. Students not admitted for the semester of application must reapply for the next application period and compete with the new pool for admission. There is no waiting list for this program.

Transfer of Credits

For information regarding the transfer of credits from other institutions of higher learning for general education and required courses other than Dental Hygiene, please contact the Graduation and Transfer Services office (AD 114, telephone 863-8438). For Dental Hygiene courses, contact the Department of Dental Hygiene after you have been notified of acceptance into the program.

DEGREE

The Department of Dental Hygiene reserves the right to modify the curriculum as needed to meet accreditation requirements and changes in the profession.

The following degree requirements are valid only for students accepted into the Dental Hygiene program Fall 2005. Contact the Dental Hygiene department advisor for Fall 2006 requirements.

AAS IN DENTAL HYGIENE — 81 CREDITS

Matriculation Requirements:

1 Complete MATH 1050, ENGL 1010, CHEM 1110, ZOOL 2320 and ZOOL 2420

General Education Requirements:			20 Credits
ENGLISH			
• ENGL	1010	Introduction to Writing	3
MATHEMATICS			
• MATH	1050	College Algebra	4
HUMANITIES/FINE ARTS/FOREIGN LANGUAGE			
• PHIL	2050	Ethics and Values (highly recommended)	3
SOCIAL AND BEHAVIORAL SCIENCE			
• SOC	1010	Introduction to Sociology	
or SOC	1020	Modern Social Problems	3
BIOLOGY OR PHYSICAL SCIENCE			
• MICR	2060	Microbiology for Health Professions	4
PHYSICAL EDUCATION/HEALTH/SAFETY OR ENVIRONMENT			
• NUTR	1020	Foundations of Human Nutrition	3

Discipline Core Requirements:			61 Credits
Complete the following:			
• DENT	1010	Dental Hygiene I	4
• DENT	1020	Oral Anatomy and Physiology	4
• DENT	2010	Dental Hygiene III	6
• DENT	2020	Dental Pharmacology	3
• DENT	2030	Periodontology	3
• DENT	1030	Dental Materials	2
• DENT	1040	Dental Hygiene II	6
• DENT	1050	Clinical Dental Radiography	2
• DENT	1060	General and Oral Pathology	3

AAS IN DENTAL HYGIENE (CON'T) — 81 CREDITS

• DENT	2040	Dental Hygiene IV	6
• DENT	2050	Dental Hygiene Seminar	1
• DENT	2060	Community Dental Hygiene	3
• CHEM	1110	Elementary Chemistry for the Health Sciences	4
• COMM	1050	Introduction to Speech Communications	3
or COMM	2110	Interpersonal Communications	
• PSY	1010	General Psychology	3
• ZOOL	2320	Human Anatomy	4
• ZOOL	2420	Human Physiology	4

Graduation Requirements:

1 Completion of a minimum of 81 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 UVSC
4 Completion of GE and specified departmental requirements

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

DENT 1010
Dental Hygiene I
4:2:6 F

• Prerequisite: Departmental permission required

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. 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.

DENT 1020
Oral Anatomy and Physiology
4:3:3 F

• Prerequisite: Departmental permission required

For students accepted into the Dental Hygiene Program. Focuses on study of the normal development, structure, and function of the orofacial region. Provides microscopic and macroscopic 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
2:1:3 Sp

• Prerequisite: Departmental permission required

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; all skills are taught to laboratory competence.

DENT 1040
Dental Hygiene II
6:3:9 Sp

• Prerequisite: Departmental permission required

Provides advanced 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.

DENT 1050
Clinical Dental Radiography
2:1:3 Sp

• Prerequisite: Departmental permission required

Focuses on radiation physics, biology, protection, quality, dental techniques, film processing and mounting, interpretation of errors, recognition of anatomical landmarks, and evidence of pathologies. Practices skills on radiographic mannequins in a laboratory setting; all skills are taught to clinical competence. Builds on basic and dental sciences and prepares for clinical dental hygiene practice.

DENT 1060
General and Oral Pathology
3:3:0 Sp

• Prerequisite: Departmental permission required

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 2010
Dental Hygiene III
6:2:12 F

• Prerequisite: Departmental permission required

Introduces skills involving oral anesthesia and supportive periodontal treatment. Advanced skills of dental hygiene practice, including assessment and treatment are practiced on patients of all ages in a clinical setting, with emphasis on planning and comprehensive treatment; all skills are taught to clinical competence unless otherwise noted in the course outline. Builds on basic and dental sciences and prepares for clinical dental hygiene practice.

DENT 2020
Dental Pharmacology
3:3:0 F

• Prerequisite: Departmental permission required

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 toxicol-

ogy. Builds on basic and dental sciences and prepares for clinical dental hygiene practice.

DENT 2030
Periodontology
3:3:0 F
• Prerequisite: Departmental permission required
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 2040
Dental Hygiene IV
6:2:12 Sp
• Prerequisite: Departmental permission required
Provides comprehensive clinical experience in all phases of dental hygiene practice for patients, regardless of special needs; all skills are taught 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.

DENT 2050
Dental Hygiene Seminar
1:1:0 Sp
• Prerequisite: Departmental permission required
Explores topics relevant to contemporary practice of dental hygiene, including their 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 2060
Community Dental Hygiene
3:2:3 Sp
• Prerequisite: Departmental permission required
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.

DIESEL MECHANICS TECHNOLOGY

Department Chair: Doug Bradley

Office: SA 325
Telephone: 801-863-8124

Program Coordinator: Don Ray Nelson
Office: SA 317c
Telephone: 801-863-6320 or 801-863-8349

Faculty:

Professor
Doug Bradley
Associate Professor
Don Ray Nelson
Assistant Professor
Dean Bohl
Instructor
Kelvyn Blackhurst

Office Manager/Advisor: Katreena Davis
Office: SA 325
Telephone: 801-863-8349

Advisory Committee: Don Jones, Smith Detroit Diesel; Jerry Ostler, Wheeler Machinery Co.; Howard Steadman, Intermountain Bobcat; Ron Dallinga, Cummins Intermountain; Charlie Coombs, DST Trucking; Lynn Warwood, UDOT Region 3; Ray Gammel, Clyde Co. Inc.

School of Computing, Engineering and Technology

Dean: Thomas McFarland
Office: CS 720b
Telephone: 801-863-8995

CAREER OPPORTUNITIES

Diesel Mechanics may be hired as mechanics working on engines, automatic transmissions, drive trains, electrical systems, suspension and steering, hydraulics, and air systems. They work on heavy equipment, farm equipment, and on-highway trucks. Diesel mechanics diagnose, repair, weld, and fine-tune the working parts of buses, trucks, construction machinery, and generators.

PROGRAMS

Four options are available: One-year Certificate, Diploma, and Associate in Applied Science Degree, and the Bachelor of Science in Technology Management Degree.

Reminder: An overall grade point average of 2.0 (C) or above is required for graduation.

CERTIFICATE IN DIESEL MECHANICS TECHNOLOGY — 31 CREDITS

Discipline Core Requirements: 19 Credits

- DMT 1100 Diesel Engine Overhaul 6
- DMT 1120 Diesel Engine Operation/Tune Up 6
- CLSS 1000 Student Success
- or ENGL 106A Career Writing for Technology—A 2
- AUT 1260 Tech Math for Mechanics 3
- or MAT 1000 Integrated Beginning and Intermediate Algebra
- or Any higher MAT or MATH course
- Any approved Behavioral Science, Social, or Political Science Distribution Course 2

Specialty Core Requirements: 12 Credits

Complete one of the three emphases listed below:

- Option 1 - Engine Emphasis
- Option 2 - Hydraulics Emphasis
- Option 3 - Truck Mechanic Emphasis

Graduation Requirements:

1. Completion of a minimum of 31 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 10 credit hours through course attendance at UVSC.

Option 1 - Engine Emphasis

Specialty Core Requirements: 12 Credits

- DMT 1510 Electrical Systems 6
- DMT 1520 Engine Electronics and Diagnostics 6

Option 2 Hydraulics Emphasis

Specialty Core Requirements: 12 Credits

- DMT 2310 Fluid Power Theory and Lab 6
- DMT 2320 Fluid Power Transmission Theory and Lab 6

Option 3 - Truck Mechanic Emphasis

Specialty Core Requirements: 12 Credits

- DMT 2410 Chassis Theory and Lab 6
- DMT 2420 Power Trains Theory and Lab 6

DIPLOMA IN DIESEL MECHANICS TECHNOLOGY — 55 CREDITS

Discipline Core Requirements: 55 Credits

- DMT 1110 Diesel Engine Overhaul 6
- DMT 1120 Diesel Engine Operation/Tune Up 6
- DMT 1510 Electrical Systems 6
- DMT 1520 Engine Electronics & Diagnostics 6
- DMT 2310 Fluid Power Theory and Lab 6
- DMT 2320 Fluid Power Transmission Theory and Lab 6
- DMT 2410 Chassis Theory and Lab 6
- DMT 2420 Power Trains Theory and Lab 6
- CLSS 1000 Student Success
- or ENGL 106A Career Writing for Technology - A 2
- AUT 1260 Tech Math for Mechanics or higher 3
- Any approved Behavioral Science, Social, or Political Science Distribution Course 2

Graduation Requirements:

1. Completion of a minimum of 55 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.

AAS IN DIESEL MECHANICS TECHNOLOGY — 67 CREDITS

General Education Requirements: 16 Credits

- ENGL 1060 Career Writing for Technology 3
- AUT 1260 Tech Math for Mechanics 3
- or MAT 1000 Integrated Beginning and Intermediate Algebra
- or Any higher MAT or MATH course
- 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: 51 Credits

- DMT 1110 Diesel Engine Overhaul 6
- DMT 1120 Diesel Engine Operation/Tune Up 6

AAS IN DIESEL MECHANICS TECHNOLOGY (CON'T) — 67 CREDITS

- DMT 1510 Electrical Systems 6
- DMT 1520 Engine Electronics & Diagnostics 6
- DMT 2310 Fluid Power Theory and Lab 6
- DMT 2320 Fluid Power Transmission Theory and Lab 6
- DMT 2410 Chassis Theory and Lab 6
- DMT 2420 Power Trains Theory and Lab 6
- WELD 1030 Related Oxyacetylene and Arc Welding 3

Graduation Requirements:

1. Completion of a minimum of 67 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 UVSC.
4. Completion of GE and specified departmental requirements.

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Diesel Mechanics Technology

Specialty Core Requirements: 48 Credits

- DMT 1110 Diesel Engine Overhaul 6
- DMT 1120 Diesel Engine Operation/Tune Up 6
- DMT 1510 Electrical Systems 6
- DMT 1520 Engine Electronics & Diagnostics 6
- DMT 2310 Fluid Power Theory and Lab 6
- DMT 2320 Fluid Power Transmission Theory and Lab 6
- DMT 2410 Chassis Theory and Lab 6
- DMT 2420 Power Trains Theory and Lab 6

NOTES:

No upper division Technology Management (i.e. Technology Management or Business Management) course work older than six years can be counted toward graduation.

If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.

Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

Due to the technical nature of the material in DMT courses, additional reading and math instruction may be required. More information will be given during advisement.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

DMT 1110
Diesel Engine Overhaul
6:3:9 F, Sp

- Prerequisite: Compass Pre-Algebra 19 or better, Reading 55 or better.
- Corequisite: AUT 1260

Studies diesel engine operating principles, factors affecting performance, design variations, and identification of components. Involves disassemble and reassemble of diesel engines following industry standard overhaul procedures.

Covers the identification, inspection, and measuring of parts to determine condition for reuse. Uses failed components to assist in teaching troubleshooting skills. Provides the opportunity to perform tune-up adjustments on different models of engines and to run an engine under load in a dynamometer test cell. Offered on the block.

DMT 1120
Diesel Engine Operation/Tune Up
6:3:9 F, SP
• Prerequisite: DMT 1110
• Corequisite: AUT 1260
Continues the study of engine components and controls, operating systems, as well as performance factors. Provides the opportunity to perform hands-on component replacement, tune-up adjustments, and the opportunity to run an engine under load in a dynamometer test cell. Emphasizes on basic engine operating factors, and troubleshooting complaints such as low power, smoke conditions, engine faults, etc. Offered on the block.

DMT 1510
Electrical Systems
6:3:9 F, Sp
• Prerequisite: AUT 1260 with C- or better
Studies theory of operation, troubleshooting and adjustment of heavy duty mobile electrical systems. Uses state-of-the-art testing equipment. Includes safety and environmental awareness. Offered on the block.

DMT 1520
Engine Electronics and Diagnostics
6:3:9 F, Sp
• Prerequisite: AUT 1260 - Pass AUT 1260 with C- or better
Studies operation and troubleshooting of late model electronic controls for diesel engines. Utilizes factory methodology and approved test equipment. Practices dynamometer testing and adjustment. Covers DOT vehicle lighting installation, troubleshooting and repair. Offered on the block.

DMT 2230 (Cross-listed as AUT 2230)
Air Conditioning and Heating
4:1.5:7 Sp
• Prerequisite: AUT 1000 series classes or DMT 1510 and DMT 1520
Teaches advanced air conditioning and heating with some emphasis on electronics and computerized engine systems and fuel injection. Includes lab experience. Taught in a five week block.

DMT 2310
Fluid Power Theory and Lab
6:3:9 F, Sp
Provides instruction in theory and application of fluid power (hydraulics) as used in modern mobile equipment. Includes practical theory and lab experience related to the operation and repair of hydraulic and pneumatic components, and hydraulic systems. Emphasizes testing, troubleshooting, design and use of hydraulic schematics, and electric over hydraulic systems.

DMT 2320
Fluid Power Transmission Theory and Lab
6:3:9 F, Sp
Provides instruction on theory and operation of torque converters, powershift and automatic transmissions, electronic control systems for transmissions, and service of hydraulic brake systems. Emphasizes troubleshooting, repair procedures, the use of service manuals and schematics.

DMT 2410
Chassis Theory and Lab
6:3:9 F, Sp
For third and fourth semester students. Provides theory and lab experience on maintenance and repair of heavy duty chassis systems. Covers air brake systems, ABS, steering geometry, front end and tandem alignment, steering and load carrying suspensions, and frame maintenance. Emphasizes troubleshooting, highway safety, and preventative maintenance.

DMT 2420
Power Trains Theory and Lab
6:3:9 F, Sp
For third and fourth semester students. Provides theory and lab experience in maintenance and repair of heavy duty power trains systems. Covers 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.

DMT 281R
Cooperative Work Experience
1-8:0:5-40 F, Sp
• Corequisite: 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.

DMT 285R
Cooperative Correlated Class
1:1:0 F, Sp
• Corequisite: 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
1-5:0:3-15 F, Sp
• Prerequisite: 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
1-4:0-4:0-12 F, Sp
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
1:1:0 F, Sp
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.

EARTH SCIENCE

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CAREER OPPORTUNITIES

Examples of occupations open to graduates of Earth Science bachelor programs are: exploration geologist, hydrogeologist, engineering geologist, environmental scientist, science manager, science technician, government regulator, environmental technician, and engineering technician. Current employment opportunities for graduates from Earth Science programs are strong.

PROGRAMS

Students in Earth Science may receive: Bachelor of Science or Arts in Integrated Studies with a pre-major in Earth Science; Bachelor of Science in Earth Science; Bachelor of Science in Earth Science with an Emphais in Environmental Management; and Bachelor of Science in Earth Science Education; Bachelor of Science in Technology Management with a technical specialty in Environmental Technology Management.

AS IN PHYSICAL SCIENCE — 63 CREDITS

General Education Requirements: 38 Credits
- Complete General Education requirements as detailed in the General Education section of this catalog, using PHYS 2210 and PHYS 2220 to fill the Physical Science requirements.

Discipline Core Requirements: 17 Credits
- CHEM 1210 Principles of Chemistry I — 4
- CHEM 1215 Principles of Chemistry I Laboratory — 1
- MATH 1210 Calculus I — 5
- MATH 1220 Calculus II — 5
- PHYS 2215 Physics for Scientists and Engineers I Lab — 1
- PHYS 2225 Physics for Scientists and Engineers II Lab — 1

Elective Requirements: 8 Credits

Complete 8 credits from the following: 8
- CHEM 1220 Principles of Chemistry II
- CHEM 2310 Organic Chemistry I
- CHEM 2315 Organic Chemistry I Laboratory
- CHEM 2325 Organic Chemistry II Laboratory
- ENGR 2210 Computing for Science and Engineering Analysis
- GEO 1010 Introduction to Geology
- GEO 1220 Historical Geology
- GEO 1080 Introduction to Oceanography
- MATH 2210 Calculus III
- MATH 2040 Principles of Statistics
- MATH 2270 Linear Algebra
- MATH 2280 Ordinary Differential Equations
- METO 1010 Introduction to Meteorology

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 UVSC
4. Completion of GE and specified departmental requirements

BS IN EARTH SCIENCE — 120-121 CREDITS

General Education Requirements: 27 Credits
- ENGL 1010 Introduction to Writing — 3
- ENGL 2020 Intermediate Writing—Science and Technology — 3
- MATH 1050 College Algebra — 4

Complete one of the following — 3
- HIST 2700 US History to 1877
- **and** HIST 2710 US History since 1877
- HIST 1700 American Civilization
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete one of the following
- PHIL 2050 Ethics and Values — 3
- HLTH 1100 Personal Health and Wellness
- **or** PES 1097 Fitness for Life — 2

Distribution Courses
- Biology*
- Physical Science*
- Additional Biology or Physical Science*
- Humanities Distribution — 3
- Fine Arts Distribution — 3
- Social/Behavioral Science — 3

Discipline Core Requirements: 56 Credits
- BIOL 1010 General Biology — 3

BS IN EARTH SCIENCE (CON'T) — 120-121 CREDITS

- GEO 1010 Introduction to Geology — 3
- GEO 1015 Introduction to Geology Laboratory — 1
- CHEM 1210 Principles of Chemistry I — 4
- CHEM 1215 Principles of Chemistry I Laboratory — 1
- CHEM 1220 Principles of Chemistry II — 4
- CHEM 1225 Principles ofChemestry II Laboratory — 1
- MATH 1060 Trigonometry — 3
- MATH 2040 Principles of Statistics — 4
- GEO 3080 Earth Materials — 4
- GEO 3210 Environmental Geology — 4
- CHEM 3020 Environmental Chemistry — 3

Complete 21 credits from the following list: 21
- BIOL 3800 Conservation Biology
- **or** BIOL 4500 Principles of Evolution
- ENVT 2730 Introduction to Soils
- ENVT 3280 Environmental Law
- ENVT 3290 Environmental Permits and Reports
- ENVT 3790 Hydrology
- GEOG 3630 Introduction to Geographic Information Systems
- GEO 1220 Historical Geology
- **and** GEO 1225 Historical Geology Laboratory
- GEO 1080 Introduction to Oceanography
- **and** GEO 1085 Introduction to Oceanography Laboratory
- METO 1010 Introduction to Meteorology
- **and** METO 1020 Introduction to Meteorology Lab
- METO 3100 Earth Systems

Specialty Core Requirements: 37-38 Credits

Complete one of the following emphases (see detail below):
- Earth Science — 38
- Environmental Management — 40

Graduation Requirements:
1. Completion of a minimum of 121-123 semester credits
2. Overall grade point average of 2.0 (C) or above.
3. Grade of C- or better in every GEO course
4. Residency hours—minimum of 30 credit hours through course attendance at UVSC, with at least 10 hours earned in the last 45 hours.
5. Completion of GE and specified departmental requirements

Note:
*This requirement is satisfied within the discipline core requirements.

EARTH SCIENCE EMPHASIS — 38 CREDITS

Specialty Core Requirements: 38 Credits
- MATH 1210 Calculus I — 5
- MATH 1220 Calculus II — 5
- PHYS 2210 Physics for Scientists and Engineers I — 4
- PHYS 2220 Physics for Scientists and Engineers II — 4
- GEO 3200 Geologic Hazards — 4
- GEO 3700 Structure and Tectonics — 4
- GEO 4500 Earth Systems History I — 4
- GEO 4510 Earth Systems History II — 4
- GEO 4600 Field Experience — 4

ENVIRONMENTAL MANAGEMENT EMPHASIS — 40 CREDITS

Specialty Core Requirements: 22 Credits
- ENVT 1110 Introduction to Environmental Management — 3
- ENVT 1200 Environmental Worker Safety — 3
- ENVT 1300 Environmental Lab — 3
- ENVT 1510 Hazardous Materials Emergency Response — 3
- ENVT 2560 Environmental Health — 3
- ENVT 2710 Environmental Careers — 1
- ENVT 1270 Environmental Microbiology — 3
- ENVT 3850 Environmental Policy — 3

Specialty Elective Requirements: 18 Credits

Take 18 credits from the following: 18
- ENVT 2600 Skills for Humanitarian Projects
- ENVT 2730 Introduction to Soils
- ENVT 3010 Environmental Toxicology
- ENVT 3320 Hydraulics of Water
- ENVT 3530 Environmental Management Systems
- ENVT 3630 Introduction to Geographic Information Systems
- ENVT 3550 Site Investigation
- ENVT 3700 Current Topics in Environmental Management
- ENVT 3750 Land Use Planning
- ENVT 3770 Natural Resources Management

BS IN EARTH SCIENCE (CON'T) 120-121 CREDITS

- ENVT 495R Special Projects in Environmental Management
- GEO 4500 Earth Systems History I
- CHEM 2310 Organic Chemistry
- ENVT 3800 Energy Use on Earth
- ENVT 282R Environmental Internship

BS IN EARTH SCIENCE EDUCATION 121 CREDITS

Matriculation Requirements:

1. Complete the following courses: GEO 1010, GEO 1015, MATH 1050, MATH 1060, BIOL 1610 with a grade of "C-" or higher in each.
2. Complete a minimum of 30 semester hours of college credit.
3. Apply to the department of Earth Science for admission.

General Education Requirements:			27 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	3
or ENGL	2020	Intermediate Writing—Science/Technology	
• MATH	1050	College Algebra	4
Complete one of the following:			3
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• HIST	1700	American Civilization	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health and Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses			
• Biology*			
• Physical Science*			
• Additional Biology or Physical Science*			
• Humanities Distribution			3
• Fine Arts Distribution			3
• Social/Behavioral Science			3
Discipline Core Requirements:			**84 Credits**
• PHYS	1040	Elementary Astronomy	3
• BIOL	1010	General Biology	3
• BIOL	2500	Environmental Biology	3
• CHEM	1210	Principles of Chemistry I	4
• CHEM	1215	Principles of Chemistry I Laboratory	1
• CHEM	1220	Principles of Chemistry II	4
• CHEM	1225	Principles of Chemistry II Laboratory	1
• GEO	1010	Introduction to Geology	3
• GEO	1015	Introduction to Geology Laboratory	1
• GEO	3080	Earth Materials	4
• GEO	3700	Structure and Tectonics	4
• GEO	4500	Earth Systems History I	4
• GEO	4200	Teaching Methods in the Science	3
• MATH	1060	Trigonometry	3
• METO	3100	Earth Systems	3
• PHYS	2010	College Physics I	4
• PHYS	2015	College Physics I Lab	1
• PHYS	2020	College Physics II	4
• PHYS	2025	College Physics II Lab	1
Education Courses			
• EDSC	2540	Development of the Adolescent Student	2
• EDSP	3400	Exceptional Students	2
• EDSC	3000	Educational Psychology	3
• EDSC	3050	Foundations of American Education	2
• EDSC	4450	Multicultural Instruction/ESL	2
• EDSC	4440	Content Area Reading/Writing	3
• EDSC	4550	Secondary Curriculum Instruction and Assessment	4
• EDSC	3250	Instructional Media	2
• EDSC	4200	Classroom Management I	1
• EDSC	4250	Classroom Management II	1
• EDSC	4850	Student Teaching—Secondary	8
Elective Requirements:			**10 Credits**
Any 10 credit hours from GEO, ENVT, ENVM, CHEM, PHYS, BIOL, METO, and/or ANTH			10

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. Residency hours—minimum of 20 credit hours through course attendance at UVSC.

BS IN EARTH SCIENCE EDUCATION (CON'T) 121 CREDITS

4. Completion of GE and specified departmental requirements.
5. Grade of C- or higher in all GEO, BIOL, and METO courses.

NOTE:*This requirement is fulfilled with the core requirements.

MINOR IN EARTH SCIENCE 23 CREDITS

Matriculation Requirements:

1. Admitted to a bachelor degree program at UVSC.

Discipline Core Requirements:			23 Credits
• GEO	1010	Introduction to Geology	3
and GEO	1015	Introduction to Geology Laboratory	1
and GEO	3080	Earth Materials	4
Complete two from:			7
• GEO	1020	Prehistoric Life	
or GEO	1080	Introduction to Oceanography	
and GEO	1085	Introduction to Oceanography Laboratory	
or METO	1010	Introduction to Meteorology	
and METO	1020	Introduction to Meteorology Laboratory	
Complete two from:			8
• GEO	3200	Geologic Hazards	
• GEO	3210	Environmental Geology	
• GEO	3700	Structure and Tectonics	
• GEO	4500	Earth Systems History I	
• GEO	4510	Earth Systems History II	

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

ENVT 1110
Introduction to Environmental Management
3:3:0 F, Sp

Surveys environmental issues and the impact of people on the environment. Covers water, air, and soil pollution. Discusses pollution prevention and remediation methods. For majors and any who have an interest in environmental issues.

ENVT 1200
Environmental Worker Safety
3:3:0 F

Discusses safety laws, training requirements, and the use of personal protective equipment. Covers management of a safety program and development of a safety culture.

ENVT 1270
Environmental Microbiology
3:3:0 F

- Prerequisite: MICR 2060 recommended

For 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
3:2:3 Sp

Studies basic laboratory techniques used by labs working on environmental projects. Covers safety, pH, dissolved oxygen, BOD, turbidity, organics, and others. Includes opportunities for undergraduate research.

ENVT 1510
Hazardous Materials Emergency Response
3:3:0 F

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.

ENVT 2560
Environmental Health
3:3:0 Sp

- Prerequisite: BIOL 1010 and CHEM 1110 recommended

Presents how environmental protection and proper sanitation can protect the public. Covers control of infectious and noninfectious diseases, safe water supplies, housing safety, radiation hazards, and air pollution.

ENVT 2600
Skills for Humanitarian Projects
3:3:0 F

For students interested in participating in humanitarian projects. Covers water supplies, adobe stoves, drip irrigation systems, photoelectric lighting, and rules for safety in unfamiliar surroundings.

ENVT 2710
Environmental Careers
1:1:0 Sp

For all students interested in environmental careers. Explores the career opportunities in environmental areas. Covers resumes, letters of inquiry, networking, and other methods of job seeking.

ENVT 2730
Introduction to Soils
3:3:0 Sp

Covers soil-water relations, soil classification, soil conservation, fertility, and soil chemistry. Discusses impacts such as agriculture and recreation upon soil quality.

ENVT 282R
Environmental Internship
1-5:0:3-15 Su, F, Sp

- Prerequisite: Instructor permission

Allows students practical experience working at an environmentally related job. May be repeated for a maximum of five credits toward graduation.

ENVT 3010
Environmental Toxicology
3:3:0 F
• Prerequisite: BIOL 1010 and CHEM 1110 recommended
For environmental managers and safety managers. Discusses safe levels of exposure, safe industrial practices and regulations. Reviews standards for toxic substances. Increases awareness of toxins commonly found on job sites.

ENVT 3280
Environmental Law
3:3:0 F
• Prerequisite: ENGL 1010 and ENGL 2020 recommended
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 Permits and Reports
3:3:0 On Sufficient Demand
• Prerequisite: ENGL 1010 and ENGL 2020 recommended
For students interested in becoming environmental managers. Covers the permits and reports that are required by the EPA, OSHA, state and local agencies that relate to air, water, and hazardous materials. Includes the preparation of sample permit applications and monthly operational reports.

ENVT 3320
Hydraulics of Water
3:3:0 On Sufficient Demand
• Prerequisite: MAT 1010
Prepares students to analyze the flow of water. Includes the continuity equation, Hazen-Williams formula, and the Bernoulli Theorem. Completers will be better able to interact with engineers and operate water equipment in a professional manner.

ENVT 3530
Environmental Management Systems
3:3:0 On Sufficient Demand
• Prerequisite: ENGL 1010 and ENGL 2020 recommended
For those interested in the interaction between industry and the environment. Covers the systems and organization necessary to effectively manage environmental issues. Discusses the ISO 14000 standard and its effect upon management practices.

ENVT 3550
Site Investigation
3:3:0 On Sufficient Demand
• Prerequisite: 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 3630 (Cross-listed as GEOG 3630)
Introduction to Geographic Information Systems
4:3:2
• Prerequisite: GEOG 1300
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.

ENVT 3700
Current Topics in Environmental Management
3:3:0 Sp
• Prerequisite: ENVT 1110 recommeded
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
3:3:0 F
• Prerequisite: ENVT 3280 recommeded
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
3:3:0 On Sufficient Demand
• Prerequisite: BIOL 1010 recommended
For students in the Environmental Management program and others interested in natural resource issues. Introduces the management and conservation of natural resources. Discusses forestry, range management, wildlife management, and outdoor recreation.

ENVT 3790
Hydrology
3:3:0 On Sufficient Demand
• Prerequisite: MAT 1010 and ISYS 105D recommended
Presents a comprehensive review of the role of water in the environment. Discusses precipitation, runoff, surface flow, groundwater movement, effects of vegetation on water cycles, and human impacts. Knowledge of spreadsheets recommended.

ENVT 3800 (Cross-listed as CHEM 3800, PHYS 3800)
Energy Use on Earth
3:3:0 F
• Prerequisite: (PHYS 1010 or PHSC 1000 or CHEM 1010 or GEO 1010 or GEO 2040 or METO 1010) and MATH 1050
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. 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
3:3:0
• Prerequisite: ENVT 1110 and ENVT 3280 (recommended)
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 495R
Special Projects in Environmental Management
1-3:0:3-9
• Prerequisite: Instructor Permission
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 six credits toward graduation.

GEO 1010** PP
Introduction to Geology
3:3:0 Su, F, Sp
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 GEOL 1015, the class is sufficiently rigorous to articulate as an introductory geology class.

GEO 1015**
Introduction to Geology Laboratory
1:0:2 Su, F, Sp
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.

GEO 1020 (Cross-listed as BIOL 1200) PP
Prehistoric Life
3:3:0 Sp
• Prerequisite: 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 1080 PP
Introduction to Oceanography
3:3:0 F, Sp
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
1:0:2 F, Sp
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.

GEO 1220
Historical Geology
3:3:0 F
Examines the origin and development of the Earth. Studies the succession of animals and plants from trilobites through dinosaurs and eventually to man himself, following the changing earth environment in the process. Designed for non-science students who desire an understanding of the history of the Earth. Taken in conjunction with laboratory exercises in GEO 1225, the class is sufficiently rigorous to articulate as an introductory earth science class.

GEO 1225
Historical Geology Laboratory
1:0:2 F
Designed to be taken in conjunction with GEO 1220. Identifies fossils in correlation with their paleoenvironments and geologic time periods. Illustrates and duplicates methodology of the science of historical geology. Taken with GEO 1220, the class will articulate as an introductory earth science class.

GEO 202R (Cross-listed as BIOL 202R)
Science Excursion
1:0:2 F, Sp
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. Graded as credit/no credit. May be repeated as many times as desired for interest.

GEO 204R (Cross-listed as BIOL 204R) PP
Natural History Excursion
3:1:6 Su
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.

GEO 3080
Earth Materials
4:3:3 F
• Prerequisite: GEO 1010, 1015
Investigates geologically significant rocks and rock-forming minerals. Includes origins, occurrences, and associations of several rocks and minerals. Includes hand sample and microscopic methods of identifying rocks and minerals in the laboratory. Involves field trips, possibly including weekend trips.

GEO 3200
Geologic Hazards
4:3:2 Sp
• Prerequisite: GEO 1010, 1015
Investigates the ways in which geologic hazards (including earthquakes, landslides, and volcanoes) impact civilization. Studies the causes of these hazards, how to assess whether each of these hazards is a concern at a particular site, and how each type of hazard can be planned for. Includes field-based exercises.

GEO 3210
Environmental Geology
4:3:2 F
• Prerequisite: GEO 1010, 1015
Investigates several of the geologic resources that are important for our society including water, soil, mineral, and fossil fuel resources. Studies the known reserves and trends in usage of each of these resources. Covers issues associated with soil and water pollution. Includes field-based exercises.

GEO 3700
Structure and Tectonics
4:3:3 Sp
• Prerequisite: GEO 1010, GEOL 1015
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.

GEO 4200 (Cross-listed as BIOL 4200, CHEM 4200)
Teaching Methods in Science
3:3:0 Sp
• Prerequisite: Acceptance into Secondary Education program; senior-level standing
Examines objectives, 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. Explores special needs of the learners and characteristics specific to the science discipline.

GEO 425R
Geology for Teachers
1-5:1-5:0-10 Su
• Prerequisite: Departmental Approval
For licensed teachers or teachers seeking to recertify, an update course in geology or basic geology courses for 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.

GEO 4500
Earth Systems History I
4:3:2 Sp
• Prerequisite: GEO 1010, 1015; also it is highly recommended to have METO 3100, BIOL 3700 and BIOL 4500
For students interested in an in-depth study of Earth systems history. Investigates the entire Earth system and its many subsystems as an integrative study. Includes an interpretation of the lithosphere, biosphere, hydrosphere, and atmosphere as parts of a single system in a historical context. Explores paleoenvironments, stratigraphy, sedimentology, the rock record, the effect of plate tectonics, and major chemical cycles. Includes lab exercises and field trips.

GEO 4510
Earth Systems History II
4:3:2 F
• Prerequisite: GEO 4500
Second of a series of two earth systems history classes for students interested in an in-depth study of the subject. Emphasizes paleontology, paleoecology, and paleoclimatology. Studies the history of life and the environment and how they are interconnected. Includes lab exercises and field trips.

GEO 4600
Field Experience
4:0:12 Su
• Prerequisite: GEO 1010, GEO 1015, GEO 3080, and GEO 3700
An intensive field course giving students hands-on experience with several aspects of earth science field work. Involves field work for 8 to 10 hours per day, six days per week, for four to six weeks.

GEO 495R
Independent Study
1-4:0:3-12 Su, F, Sp
• Prerequisite: GEOL 1010 and GEO 1015
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 four credits.

METO 1010 **PP**
Introduction to Meteorology
3:3:0 **Su, F, Sp**
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
1:0:2 **F**
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.

METO 3100
Earth Systems
3:3:0 **Sp**
- Prerequisite: (CHEM 1110 or 1210), MATH 1050 and GEO 1010

For students interested in understanding the Earth's dynamic environment. Studies the four major Earth systems that constitute the environment: the lithosphere, hydrosphere, atmosphere, and biosphere. Investigates the interdependency of these systems. Explores global warming, ozone depletion, the green house effect, Earth's energy balance and other environmental concerns and discusses important environmental cycles.

ELEMENTARY EDUCATION

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Department Office Manager:
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Elementary Education Faculty:

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Associate Professor
Linda Benson
Briant Farnsworth
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Juanita Benioni
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Early Childhood Education Faculty:

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Kathryn French
Assistant Professor
Genan Anderson
Lecturer
Tracy Sermon

Advisor:
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Office: EB 114B
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Children's Center
Office: EB 134 & 135
Telephone: 801-863-8146

School of Education

Dean: Briant J. Farnsworth

Office: EB 117B
Telephone: 801-863-8006

Elementary Education Partner Schools:

Alpine School District - Elementary Schools: Aspen, Barrett, Cedar Ridge, Deerfield, Foothill, Greenwood, Legacy, Lehi, Mt. Mahogany, Orem, Saratoga Shores, Scera Park, Sego Lily, Valley View, Vineyard, Westfield
Granite School District - Elementary Schools: Frost, Oakwood
Jordan School District - Elementary Schools: Herriman, Ridgecrest, Foothill.
Nebo School District - Elementary Schools: Brockbank, Grant, Rees, Salem, Parkview.
Provo School District - Elementary Schools: Amelia Earhart, Canyon Crest, Provost, Wasatch.

CAREER OPPORTUNITIES

Pre-Professional Programs

Career opportunities include teaching in early childhood programs and child care centers, Head Start teacher and teacher aide, teacher aide in elementary schools, special education teacher aide, owner and director of preschool or child care center.

Professional Education Programs

Career opportunities primarily result from admission to UVSC four-year Professional Teacher Education Program or transfer to other professional teacher education programs in the state and nation, where students may pursue a License in Elementary Education or a dual license in Elementary Education and Early Childhood Education pre-K–8 and other areas of professional education (transfer only). Certain EDEL courses transfer to other institutions offering these programs.

DEGREES

Four EDEL/EDEC degree options are available: a One-Year Certificate in Early Care and Education, Associate in Science (AS) and Associate in Arts (AA) transfer degrees, and Baccalaureate degrees (BS) with majors in Elementary Education, and Early Childhood Education leading to a Utah License in Elementary Education. Baccalaureate degrees (BS) are also available in Secondary Education. See advisor for major and minor requirements.

PRE-PROFESSIONAL PROGRAMS

CERTIFICATE IN EARLY CARE AND EDUCATION — 30 CREDITS

Discipline Core Requirements:			26 Credits
• ECFS	1500	Human Development: Life Span	3
• EDEC	1640	Children's Music and Movement	2
• EDEC	2300	Including Young Diverse Learners	2
• EDEC	2500	Child Development Birth to Eight Years	3
• EDEC	2600	Introduction to Early Childhood Education	2
• EDEC	2610	Child Guidance	3
• EDEC	2620	Early Childhood Curriculum	3
• EDEC	2640	Literacy and Literature for Early Childhood	3
• EDEC	2700	Early Childhood Practicum	3
• EDEL	2200	Computer Technology in Education	2
Elective Requirements:			4 Credits
• Any Advisor-Approved 1000 or higher course			4

Graduation Requirements:
1 Completion of a minimum of 30 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 UVSC
4 Completion of GE and specified departmental requirements

CERTIFICATE IN EARLY CARE AND EDUCATION — 30 CREDITS

5 First aid/CPR certification, food handler's permit, portfolio review and acceptance by Education Committee.

AS PRE MAJOR IN EARLY CHILDHOOD EDUCATION — 63 CREDITS

General Education Requirements:			36 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	3
or ENGL	2020	Intermediate Writing—Science and Technology	
• MATH	1050	College Algebra	4
Complete one of the following:			3
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• HIST	1700	American Civilization	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	3100	Health Education for Elementary Teachers	2
Distribution Courses			
• Biology			3
• Physical Science			3
• Additional Biology or Physical Science			3
• Humanities Distribution			3
• Fine Arts Distribution			3
• ECFS	1500	Human Development: Life Span ("C" grade or higher)	3
Discipline Core Requirements:			21 Credits
• EDEL	2200	Computer Technology in Education	2
• EDEC	2620	Early Childhood Curriculum	3
• EDEC	2300	Including Young Diverse Learners	2
• EDEC	2500	Child Development Birth to Eight Years	3
• EDEC	2600	Introduction to Early Childhood Education	2
• EDEC	2610	Child Guidance	3
• EDEC	2640	Literacy and Literature for Early Childhood	3
• EDEC	2700	Early Childhood Practicum	3
Elective Requirements:			6 Credits
• MATH	2010	Math for Elementary Teachers I	3
and MATH	2020	Math for Elementary Teachers II (highly recommended—required in the 4-yr professional program)	3
or Any Advisor Approved elective(s)			

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 UVSC
4 Completion of GE and specified departmental requirements

AS PRE MAJOR IN PRE-ELEMENTARY EDUCATION — 63 CREDITS

General Education Requirements:			36 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	
or ENGL	2020	Intermediate Writing—Science and Technology	3
• MATH	1050	College Algebra	4
Complete one of the following:			3
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• HIST	1700	American Civilization	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	3100	Health Education for Elementary Teachers	2
Distribution Courses			
• Biology			3
• Physical Science			3
• Additional Biology or Physical Science			3
• Humanities Distribution			3
• Fine Arts Distribution			3
• ECFS 1500 Human Development Life Span (Social/Behavioral Science)			3

AS PRE MAJOR IN PRE-ELEMENTARY EDUCATION — 63 CREDITS

Discipline Core Requirements:			16 Credits
• EDEL	2200	Computer Technology in Education	2
• EDEL	1010	Introduction to Education*	2
• EDEL	3150	Children's Literature	3
• EDSP	3400	Exceptional Students	2
• MATH	2010	Mathematics for Elementary Teachers I	3
• MATH	2020	Mathematics for Elementary Teachers II	3
• Any Science Lab			1
Elective Requirements:			11 Credits
Complete 11 of following approved electives (the courses required for an Early Childhood License are grouped together):			11
• AVC	3400	Fundamentals of Art Education	
• MUSC	3400	Music in the Elementary School	
• DANC	3400	Dance in the Elementary School	
• THEA	3713	Children's Theatre in the Elementary School	
• PHIL	3450	Philosophy of Childhood	
Early Childhood License			
• EDEC	2300	Including Young Diverse Learners	
• EDEC	2500	Child Development Birth to Eight Years	
• EDEC	2600	Introduction to Early Childhood Education	
• EDEC	2610	Child Guidance	
• EDEC	2640	Literacy and Literature for Early Childhood	
• EDEC	3620	Curriculum Foundations: Preprimary	

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 UVSC
4. Completion of GE and specified departmental requirements

TEACHER EDUCATION PROGRAMS

The professional teacher education program at Utah Valley State College is designed to prepare quality candidates for teaching in Utah elementary schools and early childhood education programs. All students who matriculate into the program must major in Elementary Education. The Elementary Education program leads to a License from the State of Utah to teach in grades 1-8. Extended course work in ECE leads to an additional license from the State of Utah to teach in grades pre-K–3. The UVSC teacher education program is accredited by the Utah State Office of Education and Northwest Association.

Admission to the teacher education or ECE program is a competitive, multi-level process separate from and in addition to admission to Utah Valley State College. Meeting the minimum requirements only qualifies the student to be considered for admission; it is likely that all students who meet minimum requirements will not be admitted due to enrollment limitations.

Program Admission and Retention

Admission to Professional Education status is a requirement for enrollment in professional studies level courses. Admission criteria include: 1) Minimum ACT scores; 2) GPA of 3.0 or higher; 3) A writing exam; and 4) An interview directed by the Teacher Education Selection and Retention Committee. A predetermined number of applicants will be accepted into a Professional Cohort in late-Spring, contingent upon successful completion of required courses, and meeting minimum entrance requirements.

To continue in the program, Professional Education students are expected to maintain all standards at or above levels required for admission to the Teacher Education Program and demonstrate expected levels of competence in all course work, transition points, and field activities leading to a License with no grade lower than a B- in the professional program. Additionally, students and teacher candidates are expected to adhere to standards of personal integrity, responsibility, and citizenship commonly expected of professional educators.

Persons who hold a valid (current or expired) Elementary License may pursue re-licensing course work through the Teacher Education Program at UVSC.

BS IN ELEMENTARY EDUCATION — 121 CREDITS

General Education Requirements:			36 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	3
or ENGL	2020	Intermediate Writing—Science and Technology	
• MATH	1050	College Algebra	4
Complete one of the following:			3
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• HIST	1700	American Civilization	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	3100	Health Education for Elementary Teachers	2
Distribution Courses			
• Biology			3
• Physical Science			3
• Additional Biology or Physical Science			3
• Humanities Distribution			3
• Fine Arts Distribution			3
• ECFS	1500	Human Development: Life Span ("C" grade or higher)	3
Discipline Core Requirements:			71 Credits
Pre-Professional Core Requirements:			
• Any Science Lab			1
• EDEL	2200	Computer Technology in Education	2
• EDEL	1010	Introduction to Education	2
• EDEL	3150	Children's Literature	3
• EDSP	3400	Exceptional Students	2
• MATH	2010	Mathematics for Elementary Teachers I	3
• MATH	2020	Mathematics for Elementary Teachers II	3
Professional Education Core Requirements:*			
• EDEL	3000	Educational Psychology	3
• EDEL	3050	Foundations of American Education	2
• EDEL	3250	Instructional Media	2
• EDEL	3300	Multicultural Understanding	2
• EDEL	3350	Curriculum Design and Assessment	3
• EDEL	4200	Classroom Management I	1
• EDEL	4210	Classroom Management II	1
• EDEL	4230	Classroom Management III	1
• EDEL	4240	Classroom Management IV	1
• EDEL	4400	Literacy Methods I	3
• EDEL	4410	Literacy Methods II	3
• EDEL	4420	Language Arts Methods	3
• EDEL	4430	Teaching English as a Second Language	3
• EDEL	4510	Elementary Math Methods	3
• EDEL	4520	Elementary Science Methods	3

BS IN ELEMENTARY EDUCATION (CON'T) — 121 CREDITS

• EDEL	4530	Elementary Social Studies Methods	3
• EDEL	4540	Elementary Creative Arts Methods	2
• EDEL	4620	Differentiation for Special Populations	3
• EDEL	4700	Educational Leadership for Elementary Teachers	1
• EDEL	4880	Student Teaching, Grades 1-3	4
• EDEL	4890	Student Teaching, Grades 4-6	4
• EDEL	4980	Elementary Education Capstone Seminar	2
• PES	3400	Teaching Physical Education in Elementary School	2
Elective Requirements:			14 Credits
Complete 13 of the following approved electives (if not previously taken). (Note: the courses required for a Early Childhood License are grouped together):			13
• AVC	3400	Fundamentals of Art Education	
• MUSC	3400	Music in the Elementary School	
• DANC	3400	Dance in the Elementary School	
• THEA	3713	Children's Theatre in the Elementary School	
Early Childhood License			
• EDEC	2300	Including Young Diverse Learners	
• EDEC	2600	Introduction to Early Childhood Education	
• EDEC	2610	Child Guidance	
• EDEC	2640	Literacy and Literature for Early Childhood	
• EDEC	3620	Curriculum Foundations: Preprimary	
• Complete any course 1000 or higher			1

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. Residency hours—minimum of 30 credit hours through course attendance at UVSC, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.

*Students must complete all Pre-Professional and General Education courses with an overall GPA of 3.0 and be formally admitted into the Teacher Preparation program before they will be admitted into Professional 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, EB 114B, 801-863-8527

BS IN EARLY CHILDHOOD EDUCATION — 123 CREDITS

(AVAILABLE UPON SUFFICIENT DEMAND)

General Education Requirements:			36 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	3
or ENGL	2020	Intermediate Writing—Science and Technology	
• MATH	1050	College Algebra	4
Complete one of the following:			3
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• HIST	1700	American Civilization	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	3100	Health Education for Elementary Teachers	2
Distribution Courses			
• Biology			3
• Physical Science			3
• Additional Biology or Physical Science			3
• Humanities Distribution			3
• Fine Arts Distribution			3
• ECFS	1500	Human Development: Life Span	3
Discipline Core Requirements:			82 Credits
Pre-Professional Courses:			
• EDEL	2200	Computer Technology in Education	2
• EDEC	2620	Early Childhood Curriculum	3
• EDEC	2300	Including Young Diverse Learners	2

BS IN (AVAILABLE UPON SUFFICIENT DEMAND)

EARLY CHILDHOOD EDUCATION (CON'T) 123

• EDEC	2500	Child Development Birth to Eight Years	3
• EDEC	2600	Introduction to Early Childhood Education	2
• EDEC	2610	Child Guidance	3
• EDEC	2640	Literacy and Literature for Early Childhood	3
• EDEC	2700	Early Childhood Practicum	3
• MATH	2010	Mathematics for Elementary Teachers I	3
• MATH	2020	Mathematics for Elementary Teachers II	3
Professional Education Courses:*			
• EDEC	3000	Educational Psychology	3
• EDEC	3050	Foundations of American Education	2
• EDEC	3250	Instructional Media	2
• EDEC	3300	Multicultural Understanding	2
• EDEC	3350	Curriculum Design and Assessment	3
• EDEC	4110	Problem Solving Methods in ECE	3
• EDEC	4120	Early Childhood Science Methods	3
• EDEC	4130	Creative Arts Methods in ECE	2
• EDEC	4140	Early Childhood Social Studies Methods	3
• EDEC	4420	Language Arts Methods	3
• EDEC	4200	Classroom Management I	1
• EDEC	4210	Classroom Management II	1
• EDEC	4230	Classroom Management III	1
• EDEC	4240	Classroom Management IV	1
• EDEC	4400	Foundations of Literacy I	3
• EDEC	4410	Foundations of Literacy II	3
• EDEC	4430	Teaching English as a Second Language	3
• EDEC	4620	Differentiation for Special Populations	3
• EDEC	4700	Educational Leadership for Elementary Teachers	1
• EDEC	4860	Student Teaching, Prekindergarten	4
or EDEC	4870	Student Teaching, Kindergarten	
• EDEL	4880	Student Teaching, Grade 1-3	4
• EDEL/EDEC	4980	Elementary Education Capstone Seminar	2
• PES	3400	Teaching Physical Education in Elementary School	2
Elective Requirements:			5 Credits
Complete 5 credits from the following:			5
• EDEL	3150	Children's Literature	
• EDSP	3400	Exceptional Children	
• MUSC	3400	Music in Elementary School	
• Any other Advisor approved elective			

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 UVSC, with at least 10 hours earned in the last 45 hours.
4 Completion of GE and specified departmental requirements

*Students must complete all Pre-Professional and General Education courses with an overall GPA of 3.0 and be formally admitted into the Teacher Preparation program before they will be admitted into Professional 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, EB 114B, 801-863-8527

Due to the technical nature of material in many of the Education courses, additional reading and math instruction may be required. More information on these potential requirements will be provided during advisement.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

ECFS 1400 SS
Marriage
3:3:0 Su, F, Sp

For single and married students interested in marriage dynamics. Examines courtship, marriage, communication within marriage, and expected values of spouses. Studies marital sexuality, causes of marital stability and instability. Uses class-selected personal topics as the foundation for group discussion. Includes guest speakers and small group interaction. Successful completers should have improved communication skills relating to marriage.

ECFS 1500 (Cross-listed as PSY 1100) SS
Human Development Life Span
3:3:0 Su, F, Sp

An integrated approach to human development from conception and birth to old age and death. For students wanting a transfer social science course. Foundations course for students in education, psychology or human development, health and nursing. Supportive course for trade and technical programs, and community interest. Causes students to examine their own growth and developmental patterns and learn to understand the characteristics of various developmental stages. Studies the major physical, cognitive, and psychosocial themes and issues of human development. Includes genetics, prenatal development, birth, early/middle/late childhood, adolescence, early/ middle/late adulthood, and death.

ECFS 208R
Directed Readings
1-4:0:3-12 Su, F, Sp

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 2400 SS
Family Relations
3:3:0 Su, F, Sp

For ECFS majors and others interested in the study of family life. Studies the interaction and complexity of interpersonal relations through various stages of the family life cycle. Examines cultural, ethnic, and family influences on goals, attitudes, and behaviors of children. Also studies impact of society on the modern American family. Reviews family systems, themes, styles of communication, birth order, divorce, single parenting, blended families, aging, peer influences, education, labor force participation, and environmental factors. Requires a research paper.

ECFS 2410
Parenting Skills
3:3:0 F, Sp

An elective course for ECFS students and others desiring to develop effective parenting skills in self and others. Presents practical aspects of parenting based on theoretical and academic research. Explores various parenting education models and strategies for fostering and supporting effective parent-child relationships. Also explores parenting issues including single-parenting, step-parenting, family dysfunction, and comparison of home-based and school-based discipline strategies.

ECFS 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp

• Corequisite: ECFS 285R

For ECFS majors. Provides paid, on-the-job 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 objectives that improve present work performance.

ECFS 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp

• Corequisite: ECFS 281R

For ECFS 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. Registration for this class is 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 or work or study.

ECFS 2900
Independent Study
1-5:1:0-12 Su, F, Sp

• Prerequisite: 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
3:3:0 Su, F, Sp

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 471R
Supervision
2:0:6 On Sufficient Demand
- Prerequisite: Current Utah teaching license, successfully taught in the public school system for three years, permission of instructor.
- Corequisite: Serving as a cooperating teacher in semester the applicant is taking the course.

Designed for public school teachers who supervise student teachers. Examines education method classes at UVSC, instructional theory, evaluation and supervision, lesson design and student assessment. May be repeated three times for credit.

ECFS 4720
Characteristics and Identification of Gifted Students
3:3:0 On Sufficient Demand
- Prerequisite: Permission of instructor

Designed for senior teacher education students and inservice 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
3:3:0 On Sufficient Demand
- Prerequisite: ECFS 4720; Permission of instructor

For senior education students and inservice 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.

ECFS 492R
Special Topics in Gifted Education
3:3:0 On Sufficient Demand
- Prerequisite: (EDEL 3000 or EDSC 3000 or EDEC 3000) and Permission of Instructor

Designed for senior education students and local inservice teachers. Includes topics, such as underserved populations of gifted students, contemporary issues in gifted education, creativity, etc. May be repeated three times for credit.

ECFS 494R
Special Topics in Educational Psychology
3:3:0 On Sufficient Demand
- Prerequisite: (EDEL 3000 or EDSC 3000 or EDEC 3000) and permission of instructor

Explores topics in educational psychology as it relates to classrooms. Includes topics, such as motivation to learn and succeed, classroom application of learning and cognition, role of emotion in learning, etc. Varies each semester. May be repeated three times for credit.

EDEC 1140
Child Nutrition
2:2:0 F, Sp

For Early Childhood students and others interested in child nutrition. Studies nutritional requirements for the healthy growth of children. (Prenatal through adolescence). Examines the formation of nutritional habits and behaviors. Includes menu preparation and rotation for group care settings, federal nutritional guidelines, and consumer practices. Stresses sanitation practices in preparation and storage of food. Includes lecture, preparation of monthly menus and nutrition files, and limited practical experiences preparing meals or snacks for children and staff in the Children's Center.

EDEC 1640
Childrens Music and Movement
2:2:0 F, Sp

For Early Childhood majors and those interested in teaching music to children in early childhood education settings. Covers childhood music, past and present, strategies for teaching music and movement. Explores music appreciation, creative and structured music and movement activities for young children. Introduces musical instruments and their use. Examines music and movement curricula and learning environments.

EDEC 2300
Including Young Diverse Learners†
2:2:0 F, Sp
- Prerequisite: ECFS 1500 or PSY 1100

Introduces ECE majors to the implications of diversity and exceptionality in young children. Emphasizes positive impact of diversity in children's educational environment, birth to age eight. Introduces anti-bias strategies to address diversity. Emphasizes inclusive and adaptive strategies for supporting young children with exceptionalities. Ten hour field experience is required.

EDEC 2500
Child Development Birth to Eight Years†
3:2:3 F, Sp
- Prerequisite: ECFS 1500 or PSY 1100

For Early Childhood students. Emphasizes growth in all domains. Covers milestones of development, supportive parental and care giver behaviors, influence of out-of-home care, role of play, and creating a supportive environment. Includes 45 hours of structured observation, assessment, and interaction with young children.

EDEC 2600
Introduction to Early Childhood Education
2:1.5:1.5 F, Sp

For all Early Childhood students. Introduces early childhood program requirements and the field of early childhood education. Focuses on the historical and philosophical foundations of early childhood education emphasizing developmentally appropriate practices, constructivism, and integrated, child-centered curriculum. Introduces students to components that identify quality programs for children birth to 8 years of age.

EDEC 2610
Child Guidance†
3:2:3 F, Sp

For all Early Childhood majors. Studies development of positive self-concept, social behaviors, empathy, independence, responsibility and effective communication in children. Includes 15 field hours of structured observation, assignments, and interaction with young children.

EDEC 2620
Early Childhood Curriculum†
3:2.5:1.5 F, Sp
- Prerequisite: EDEC 2600 recommended

A core course for Early Childhood students and others interested in working with young children. Covers integrated developmentally appropriate activities, particularly Math, Science, Creative Arts, and Play. Emphasizes lesson plan development, routines and schedules, curriculum philosophies, presentation skills, and resource file development. Uses in-class demonstrations, group interaction, and hands-on participation. Includes curriculum planning to facilitate integration of state core curriculum standards in K-3.

EDEC 2640
Literacy and Literature for Early Childhood
3:3:0 F, Sp

For Early Childhood students. Introduces practical aspects of fostering literacy development in young children. Focuses on emerging and early literacy in the home, early care, and education settings (infancy through age eight), with an emphasis on ages four through six. Studies strategies for holistic integration of the various literacy processes. Addresses the role of children's literature, the relationship between early language development and literacy opportunities and methods for developing language and positive attitudes toward books.

EDEC 2700
Early Childhood Practicum
3:0:9 F, Sp
- Prerequisite: EDEC 2600 with a "B-" or better and EDEC 2620

A core course for ECFS, ECE and dual certification education majors. Provides support teaching experiences in the Children's Center. Includes planning and implementing learning plans, observation and evaluation of children, interactions with and guidance of children individually and in small groups, parent education opportunities, and application of technology.

EDEC 3000
Educational Psychology
3:3:0 F
- Prerequisite: Admission to Professional Education Program or permission of instructor

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.

EDEC 3050
Foundations of American Education
2:2:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor
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.

EDEC 3250
Instructional Media
2:2:0 Sp
• Prerequisite: Admission to Professional Education Program or permission of instructor
For Early Childhood students. Covers applications of desktop computers and other instructional technologies in classroom settings.

EDEC 3300
Multicultural Understanding
2:2:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor
For Early Childhood students. Discusses implications of human diversity for major societal institutions. Addresses the impact of diversity in children's education environments, ages birth through adolescence. Focuses on linguistic, cultural, ethnic, familial, religious, developmental, and gender diversity. Emphasizes inclusive, anti-bias classroom strategies for supporting learning and development of diverse students. Encourages examination of personal beliefs and attitudes about diversity.

EDEC 3350
Curriculum Design and Assessment
3:3:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor
Teaches conducting and utilizing ongoing assessment of young children for curricular purposes. Explores using a variety of assessment tools. Introduces the Utah pre-kindergarten readiness assessment and other state mandated assessments. Emphasizes authentic assessment in early childhood settings. Includes instruction on curriculum mapping as a tool for integration of state core curriculum, tools to ensure differentiation for specific populations, as well as ways to include parents as partners in the process of assessment and learning.

EDEC 3620
Curriculum Foundations—Preprimary
3:2:3 Sp
• Prerequisite: EDEC 2600, ECFS 1500 or PSY 1100 and admission to Professional Education Program.
For Early Childhood Education students. Covers integrated developmentally appropriate activities. Emphasizes planning, implementation, and evaluation of active learning experiences for children. Uses in-class demonstrations, group interaction, and practical experiences with children. Upon completion students should be able to implement developmentally appropriate curriculum in kindergarten and pre-kindergarten. Requires 45 clock hours of supervised practical experience with young children in the UVSC Children's Center.

EDEC 4110
Problem Solving Methods in ECE
3:3:0 On Sufficient Demand
• Prerequisite: Admission to Professional Education Program or permission of instructor
Presents developmentally appropriate methods for teaching math concepts to children and promoting inquiry, problem-solving, and critical thinking skills in children, pre-kindergarten through grade 3. Includes classroom instruction and field experiences with children.

EDEC 4120
Early Childhood Science Methods
3:3:0 On Sufficient Demand
• Prerequisite: Acceptance to Professional Education Program or permission of instructor
Presents developmentally appropriate methods for teaching science concepts to children in the context of their environment and experiences. Promotes inquiry, problem-solving, and critical thinking skills in children, pre-kindergarten through grade 3. Includes classroom instruction and field experience with children.

EDEC 4130
Creative Arts Methods in ECE
2:2:0 On Sufficient Demand
• Prerequisite: Admission to Professional Education Program or permission of instructor.
For Early Childhood students. Presents developmentally appropriate methods for integrating music, art, dance, and drama experiences across the curriculum for children and promoting creative expression in children, pre-kindergarten through grade 3. Also includes strategies for promoting social skills development. Includes classroom instruction and field experiences with children.

EDEC 4140
Early Childhood Social Studies Methods
3:2:3 On Sufficient Demand
• Prerequisite: Admission to Professional Education Program or permission of instructor
Presents developmentally appropriate methods for teaching social studies concepts to children, pre-kindergarten through grade 3. Includes classroom instruction and field experiences with children.

EDEC 4200
Classroom Management I
1:1:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor
Presents philosophy, trends and necessities of a well managed classroom. Discusses the role of management and quality instruction.

EDEC 4210
Classroom Management II
1:1:0 On Sufficient Demand
• Prerequisite: EDEC 4200
• Corequisite: Admission to Professional Education Program or permission of instructor
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.

EDEC 4230
Classroom Management III
1:1:0 On Sufficient Demand
• Prerequisite: EDEC 4210
• Corequisite: Admission to Professional Education Program or permission of instructor
Presents strategies for routine management of the classroom environment and materials, and the initial set up of a classroom and management plans. Workday and observation of first day of school in a public school classroom.

EDEC 4240
Classroom Management IV
1:1:0 On Sufficient Demand
• Prerequisite: EDEC 4230
• Corequisite: Admission to Professional Education Program or permission of instructor
Presents strategies for handling student misbehavior. Reviews theory and problem solving processes. Explores practical, appropriate responses, particularly behavior modification strategies with an emphasis on self-monitoring.

EDEC 4250
Classroom Management II
1:1:0 Sp
• Prerequisite: EDEC 4200, Admission to Professional Education Program or permission of instructor.
Presents strategies for handling chronic misbehavior and students with behavioral or emotional disorders. Reviews theory and expert problem solving process. Explores practical, appropriate responses, particularly behavior modification strategies with an emphasis on self-monitoring.

EDEC 4400
Literacy Methods I
3:3:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor.
Presents practical and theoretical foundations for fostering reading competence in children, pre-kindergarten through grade 3. Includes classroom instruction and field experience with children.

EDEC 4410
Literacy Methods II
3:3:0 Sp
• Prerequisite: Admission to Professional Education Program or permission of instructor
Surveys contemporary issues in literacy instruction in the elementary school years. Includes content area reading, reading assessment and remediation, and current issues being explored in professional literacy journals. Includes classroom instruction and field experiences with children.

EDEC 4420
Language Arts Methods
3:3:0 On Sufficient Demand
- Prerequisite: Admission to Professional Education Program or permission of instructor.

Presents methods for teaching reading and language art concepts to children, grades Pre-K-3. Includes classroom instruction and field experiences with children.

EDEC 4430
Teaching English as a Second Language
3:3:0 Sp
- Prerequisite: Admission to Professional Education Program or permission of instructor.

For Early Childhood students. Presents methods for promoting reading competence and fostering literacy in limited-English speaking children, grades pre-kindergarten through grade 3. Includes classroom instruction and field experiences with children.

EDEC 4620
Differentiation for Special Populations
3:3:0 On Sufficient Demand
Includes theory and philosophy for teachers working with diverse populations. Covers appropriate practice for teachers working with diverse populations. Outlines strategies of instruction for diverse populations including content, processes, and assessment for instructional application.

EDEC 4700
Educational Leadership for Elementary Teachers
1:1:1 F
- Prerequisite: Admission to Professional Education Program or permission of instructor.

For Early Childhood senior education students. Reviews the theory and practice of educational leadership skills. Includes classroom instruction and the analysis of skills currently being used in schools.

EDEC 4860
Student Teaching Prekindergarten
4:0:12 On Sufficient Demand
- Prerequisite: Admission to Professional Education Program or permission of instructor.

For majors in Early Childhood Teacher Education. A culminating five-week teaching experience in a prekindergarten classroom. Includes application of knowledge, skills, and attitudes derived in previous course work and program experience. May be waived for students with previous supervised primary grades teaching experience. However, both EDEC 4860 and EDEC 4870 may not be waived.

EDEC 4870
Student Teaching Kindergarten
4:0:12 On Sufficient Demand
- Prerequisite: Admission to Professional Education Program or permission of instructor.
- Corequisite: EDEC 4950

For majors in Early Childhood Teacher Education. A culminating five-week teaching experience in kindergarten classroom. Includes application of knowledge, skills, and attitudes derived in previous course work and program experience. May be waived for students with previous supervised primary-grades teaching experience. However, both EDEC 4860 and EDEC 4870 may not be waived.

EDEC 4950
Early Childhood Education and Administration Seminar
1:1:0 On Sufficient Demand
- Prerequisite: Admission to Professional Education Program or permission of instructor.
- Corequisite: EDEC 4860

For majors in Early Childhood dual certification program. Guides students through steps of program and facility design, licensing, budgeting, and procurement of materials and equipment. Integrates local, state and federal requirements, professional and ethical criteria, and business management principles. Upon successful completion students should be prepared to direct an early childhood program.

EDEC 4980 (Cross-listed as EDEL 4980)
Elementary Education Capstone Seminar
2:2:0
- Prerequisite: Admission to Professional Education Program. Successful completion of all professional education courses.
- Corequisite: (EDEL 4880 or EDEL 4890) or (EDEC 4860 OR EDEC 4870)

Integrates previous course work and current student teaching field experiences and documents emerging competencies in the student portfolio. Also includes involvement by school personnel and covers application and interview procedures for teaching vacancies.

EDEL 1010
Introduction to Education
2:1.5:1.5 F, Sp
For students interested in careers in education. 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
Computer Technology in Education
2:2:0 Su, F, Sp
For Elementary Education students and others interested in evaluation, selection, and use of technology for children. Covers limitations of computer applications for children. Provides criteria for selecting software appropriate for children's use and strategies for teaching computer skills to children. Includes hands-on experience with computers.

EDEL 3000
Educational Psychology†
3:3:0 F
- Prerequisite: Admission to Professional Education Program or permission of instructor

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.

EDEL 3050
Foundations of American Education
2:2:0 F
- Prerequisite: Admission to Professional Education Program or permission of instructor

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 3150
Childrens Literature†
3:3:0 Su, F, Sp
- Prerequisite: EDEL 1010 or EDEC 2600 or permission of instructor

For Elementary Education students and others interested in children's literature. Evaluates children's books in several genres. Examines selected books, picture books, easy reading and intermediate novels. Studies illustrators and their styles. Includes lecture, demonstration, guest lecturers, and audio-visuals. Completers should have a good knowledge of what is current and of value in literature for children, infancy through adolescence.

EDEL 3250
Instructional Media
2:2:0 Sp
- Prerequisite: Admission to Professional Education Program or permission of instructor

For Elementary Education students. Covers applications of desktop computers and other instructional technologies in classroom settings.

EDEL 3300
Multicultural Understanding
2:2:0 F
- Prerequisite: Admission to Professional Education Program or permission of instructor

For Elementary Education students. Discusses implications of human diversity for major societal institutions. Addresses the impact of diversity in children's education environments, ages birth through adolescence. Focuses on linguistic, cultural, ethnic, familial, religious, developmental, and gender diversity. Emphasizes inclusive, anti-bias classroom strategies for supporting learning and development of diverse students. Encourages examination of personal beliefs and attitudes about diversity.

EDEL 3350
Curriculum Design and Assessment
3:3:0 Sp
• Prerequisite: Admission to Professional Education Program or permission of instructor
For Elementary Education students. A beginning course in curriculum design and assessment of program effectiveness and student achievement. Covers theory and practice.

EDEL 3520
Science for Elementary Education
2:2:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor
For Elementary Education students. Addresses fundamental concepts from the sciences commonly found in an elementary science curriculum. Acquaints students with science concepts they will be expected to teach in the public schools according to the core curriculum of the state of Utah. Includes hands-on laboratory experiences and field-based experiences with children.

EDEL 3530
Social Studies for Elementary Teachers
2:2:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor.
For Elementary Education students. Addresses fundamental concepts from the social sciences commonly found in an elementary social studies curriculum. Acquaints students with the social science concepts they will be expected to teach in the public schools according to the core curriculum of the State of Utah.

EDEL 4200
Classroom Management I
1:1:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor
Presents philosophy, trends and necessities of a well-managed classroom. Discusses the role of management and quality instruction.

EDEL 4210
Classroom Management II
1:1:0 On Sufficient Demand
• Prerequisite: EDEL 4200
• Corequisite: Admission to Professional Education Program or permission of instructor
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
Classroom Management III
1:1:0 On Sufficient Demand
• Prerequisite: EDEL 4210
• Corequisite: Admission to Professional Education Program or permission of instructor
Presents strategies for routine management of the classroom environment and materials, and the initial set up of a classroom and management plans. Workday and observation of first day of school in a public school classroom.

EDEL 4240
Classroom Management IV
1:1:0 On Sufficient Demand
• Prerequisite: EDEL 4230
• Corequisite: Admission to Professional Education Program or permission of instructor
Presents strategies for handling student misbehavior. Reviews theory and problem solving processes. Explores practical, appropriate responses, particularly behavior modification strategies with an emphasis on self-monitoring.

EDEL 4250
Classroom Management II
1:1:0 Sp
• Prerequisite: EDEL 4200, Admission to Professional Education Program or permission of instructor.
Presents strategies for handling chronic misbehavior and students with behavioral or emotional disorders. Reviews theory and expert problem solving process. Explores practical, appropriate responses, particularly behavior modification strategies with an emphasis on self-monitoring.

EDEL 4400
Literacy Methods I†
3:3:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor.
Presents practical and theoretical foundations for fostering reading competence in children, pre-kindergarten through grade 3. Includes classroom instruction and field experience with children.

EDEL 4410
Literacy Methods II
3:3:0 Sp
• Prerequisite: Admission to Professional Education Program or permission of instructor.
Surveys contempory issues in literacy instruction in the elementary school years. Includes content area reading, reading assessment and remediation, and current issues being explored in professional literacy journals. Includes classroom instruction and field experiences with children.

EDEL 4420
Language Arts Methods†
3:3:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor
Presents methods for teaching reading and language art concepts to children, grades 1-6. Includes classroom instruction and field experiences with children.

EDEL 4430
Teaching English as a Second Language
3:3:0 Sp
• Prerequisite: Admission to Professional Education Program or permission of instructor.
For Elementary Education students. Presents methods for promoting reading competence and fostering literacy in limited English speaking children, grades 1-6. Includes classroom instruction and field experiences with children.

EDEL 4510
Elementary Math Methods
3:3:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor
For Elementary Education students. Presents methods for teaching math concepts to children, grades 1-6. Includes classroom instruction and field experiences with children.

EDEL 4520
Elementary Science Methods
3:3:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor
For Elementary Education students. Presents methods for teaching science concepts to children, grades 1-6. Includes classroom instruction and field experiences with children.

EDEL 4530
Elementary Social Studies Methods
3:3:0 Sp
• Prerequisite: Admission to Professional Education Program or permission of instructor
For Elementary Educations students. Presents methods of teaching social studies concepts to children. Includes classroom instruction and field experience teaching children.

EDEL 4540
Elementary Creative Arts Methods
2:2:0 Sp
• Prerequisite: Admission to Professional Education Program or permission of instructor.
For Elementary Education students. Presents methods for integrating music, art, dance, and drama experiences across the curriculum in grades 1-6. Includes classroom instruction and field experiences with children.

EDEL 4600
Differentiation for Special Populations I
1:1:0 F
• Prerequisite: Admission to the Professional Education Program or permission of instructor
For Elementary Education students. Includes theory and philosophy for teachers working with diverse populations. Addresses issues associated with diversity.

EDEL 4610
Differentiation for Special Populations II
1:1:0 Sp
• Prerequisite: EDEL 4600, Admission to the Professional Education Program or permission of instructor
For Elementary Education students. Covers appropriate practice for teachers working with diverse populations. Outlines strategies of instruction for diverse populations including content, processes, and assessment for instructional application.

EDEL 4620
Differentiation for Special Populations
3:3:0 On Sufficient Demand
Includes theory and philosophy for teachers working with diverse populations. Covers appropriate practice for teachers working with diverse populations. Outlines strategies of instruction for diverse populations including content, pro-

cesses, and assessment for instructional application.

EDEL 4700
Educational Leadership for Elementary Teachers
1:1:1 F
- Prerequisite: Admission to Professional Education Program or permission of instructor.

For Elementary Education senior education students. Reviews the theory and practice of educational leadership skills. Includes classroom instruction and the analysis of skills currently being used in schools.

EDEL 4880
Student Teaching—Grades 1-3
4-8:0:12-24 Sp
- Prerequisite: Admission to Professional Education Program. Successful completion of all professional education courses.
- Corequisite: EDEL 4980

For Elementary Education students. A culminating ten-week teaching experience in an elementary classroom, grades 1-3. Includes application of knowledge, skills, and attitudes derived in previous course work and program experience. Must complete a combined ten-week experience in EDEL 4880 and EDEL 4890.

EDEL 4890
Student Teaching—Grades 4-6
4-8:0:12-24 Sp
- Prerequisite: Admission to Professional Education Program. Successful completion of all professional education courses.
- Corequisite: EDEL 4980

For Elementary Education students. A culminating ten-week teaching experience in an elementary classroom, grade 4-6. Includes application of knowledge, skills, and attitudes derived in previous course work and program experience. Must complete a combined ten-week experience in EDEL 4880 and EDEL 4890.

EDEL 491R
Independent Study
2-4:0-4:0-12 On Sufficient Demand
- Prerequisite: Department Chair Approval

For Bachelor Degree seeking students and other interested persons. Offers independent study as directed at the discretion and approval of the department chairperson. May be repeated for up to three credits toward graduation.

EDEL 4980 (Cross-listed as EDEC 4980)
Elementary Education Capstone Seminar
2:2:0 Sp
- Prerequisite: Admission to Professional Education Program. Successful completion of all professional education courses.
- Corequisite: (EDEL 4880 or EDEL 4890) or (EDEC 4860 OR EDEC 4870)

Integrates previous course work and current student teaching field experiences and documents emerging competencies in the student portfolio. Also includes involvement by school personnel and covers application and interview procedures for teaching vacancies.

EDSP 3400
Exceptional Students†
2:2:0 Su, F, Sp
Covers teacher's roles in integration of exceptional students, working with parents and specialists, and in developing individual educational plans for exceptional students. Identifies characteristics and special needs of students who have physical, emotional, social, mental, or health exceptionalities. Stresses curriculum modification necessary for meeting special needs. Requires students to develop a code of personal ethical behaviors specific to teaching exceptional students.

EDSP 3420
The Exceptional Individual in Society
3:3:0 F, Sp
For teacher education and integrated studies degree students and others interested in individuals with disabilities and the societal, ethical, and legal issues related to differing abilities in our society. Studies characteristics and needs of individuals with disabilities. Explores attitudes and responses toward differing abilities.

SECONDARY EDUCATION

Department Chair: Roger Wise

Office: EB 116B
Telephone: 801-863-8499

Department Office Manager: Kenzie Wagoner
Office: EB 117
Telephone: 801-863-8228

Secondary Education Faculty:

Professor
Roger Wise
Assistant Professor
Martin Kokol
Numsiri Kunakemakorn
Axel Ramirez

Field Director: Numsiri Kunakemakorn
Office: EB 112G
Telephone: 801-863-8588

School of Education

Dean: Briant J. Farnsworth
Office: EB 117B
Telephone: 801-863-8006

College Secondary Education Committee:

School of Computing, Engineering and Technology - Kelly Baird, Bonnie Cook, Diane Hartman, Tom McFarland, Kathleen Richards.
School of Education - Briant Farnsworth, Numsiri Kunakemakorn, Martin Kokol, Axel Ramirez, Roger Wise.
School of Humanities, Arts and Social Sciences - Douglas Anderson, Dawn Chase, William Cobb, Fred Silvia, Kay Smith, Kim Strunk, Hannah Thomson, Sandy Vogel, David Wilson
School of Science and Health - Dennis Allison, Calvin Bond, Vance Hillman, Daniel Horns, Shaunna McGhie, Christine Merrin, Dee Oyler, Sam Rushforth, Paul Tayler, Richard Tolman.
Associate Vice President of Academic Affairs Karl Worthington
Vice President of Academic Affairs - Brad Cook

PROFESSIONAL EDUCATION PROGRAMS

Career opportunities primarily result from admission to UVSC four-year Professional Teacher Education Program or transfer to other professional teacher education programs in the state and nation, where students may pursue a License in Secondary Education. Certain EDSC courses transfer to other institutions offering these programs.

DEGREES

Baccalaureate degrees (BA and BS) are available in Secondary Education. See advisor for major and minor requirements.

TEACHER EDUCATION PROGRAMS

Bachelor of Science and Bachelor of Arts degrees are available in Biology Education, Business Education, Chemistry/Physics Education, Earth Science Education, English Education, History Education, and Mathematics Education.

The professional teacher education program at Utah Valley State College is designed to prepare quality candidates for teaching in Utah secondary education. All students who matriculate into the program must have a major. The Secondary Education program leads to a License from the State of Utah to teach in grades 6-12. The UVSC teacher education program is accredited by the Utah State Office of Education and Northwest Association.

Admission to the teacher education is a competitive, multi-level process separate from and in addition to admission to Utah Valley State College. Meeting the minimum requirements only qualifies the student to be considered for admission; it is likely that all students who meet minimum requirements will not be admitted due to enrollment limitations.

PROGRAM ADMISSION AND RETENTION

Admission to Professional Education status is a requirement for enrollment in professional studies level courses. Admission criteria include: 1) Minimum ACT scores; 2) GPA of 2.75 or higher; 3) A CAAP writing exam; and 4) An interview directed by the Teacher Education Selection and Retention Committee. A predetermined number of applicants will be accepted into a Professional Cohort in late Fall and Spring, contingent upon successful completion of required courses, and meeting minimum entrance requirements.

To continue in the program, Professional Education students are expected to maintain all standards at or above levels required for admission to the Teacher Education Program and demonstrate expected levels of competence in all course work and field activities leading to a License with no grade lower than a B- in the professional program and method courses. Additionally, students and teacher candidates are expected to adhere to standards of personal integrity, responsibility, and citizenship commonly expected of professional educators.

Persons who hold a valid (current or expired) Secondary License may pursue re-licensing course work through the Teacher Education Program at UVSC.

SECONDARY EDUCATION LICENSURE

Matriculation Requirements:
1. Minimum ACT scores - 18 Subtest, 20 Composite
2. GPA of 2.75 or higher
3. A CAAP written exam
4. An interview directed by the Teacher Education Selection and Retention Committee.

Discipline Core Requirements:			30 Credits
• EDSC	2540	Development of the Adolescent Student	2
• EDSC	3000	Educational Psychology	3
• EDSC	3050	Foundations of American Education	2
• EDSC	3250	Instructional Media	2
• EDSC	4200	Classroom Management I	1
• EDSC	4250	Classroom Management II	1
• EDSC	4440	Content Area Reading and Writing	3
• EDSC	4450	Multicultural Instruction/ESL	2
• EDSC	4550	Secondary Curriculum, Instruction and Assessment	4
• EDSC	4850	Student Teaching, Secondary	8
• EDSP	3400	Exceptional Students	2

APPROVED EDUCATION MINORS

- Business Education
  - Basic Business
  - Information Technology
  - Marketing
- English Education

Due to the technical nature of material in many of the Education courses, additional reading and math instruction may be required. More information on these potential requirements will be provided during advisement.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

EDSC 2010
Content Area Tutoring
2-6:1:5-25
• Prerequisite: Instructor Approval
For those interested in working for tutorial programs on campus. Includes methodology, theory and practice of tutoring, and completers will have met the requirements for CRLA tutor certification. Features experience tutoring students who have a variety of learning styles. Prepares teachers to appropriately train and use tutors for all students under their direction.

EDSC 2540
Development of the Adolescent Student
2:2:0 F, Sp
A core course for Secondary Education students. Examines development of the adolescent in areas of physical, cognitive, psychological, social, and sexual development and the relationship of development in these areas with success in school. Explores common problems of ado-

lescence and methods of dealing with these problems in the school setting.

EDSC 3000
Educational Psychology
3:3:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor
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.

EDSC 3050
Foundations of American Education
2:2:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor
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.

EDSC 3250
Instructional Media
2:2:0 Sp
• Prerequisite: Admission to Professional Education Program or permission of instructor
For Secondary Education students. Covers applications of desktop computers and other instructional technologies in classroom settings.

EDSC 4200
Classroom Management I
1:1:0 F
• Prerequisite: Admission to Professional Education Program or permission of instructor
For Secondary Education students. Presents strategies for routing management of the classroom environment and materials, and the initial set up of classrooms and management plans. Covers theory and practice. Taught during the fall semester prior to the start of public schools.

EDSC 4250
Classroom Management II
1:1:0 Sp
• Prerequisite: EDSC 4200, Admission to Professional Education Program or permission of instructor.
Presents strategies for handling chronic misbehavior and students with behavioral or emotional disorders. Reviews theory and expert problem solving process. Explores practical, appropriate responses, particularly behavior modification strategies with an emphasis on self-monitoring.

EDSC 4440
Content Area Reading and Writing
3:3:0 F, Sp
• Prerequisite: Admission to the Professional Education Program or permission of instructor.
For Secondary Education Students. Prepares preservice secondary students to facilitate reading, writing and study skills achievement in the content areas at the middle school and secondary school level; for content area teachers with little or no background in reading and writing development. Includes field experience in public schools.

EDSC 4450
Multicultural Instruction/ESL
2:2:0 F, Sp
• Prerequisite: Admission to Professional Education Program or permission of instructor.
For Secondary Education students. Prepares preservice secondary students to understand and facilitate achievement in the content areas for ethnically and language diverse students at the middle school and secondary school level. Covers foundations of multicultural education and instructional methodology for adaptation for ESL and ethnically diverse students.

EDSC 4500
Secondary Teaching Methods
3:3:0 Su, Sp
• Prerequisite: Acceptance to Professional Secondary Education, EDSC 3000, and EDSC 4550
For students majoring in Secondary Education. Examines teaching methodology as related to teaching and learning. Teaches strategies to prepare teacher candidates for secondary education licensure in relation to a student's major. Utilizes group projects, classroom exercises and teaching projects. Evaluated by participation, teacher evaluation, exams, portfolio, reflective journal and final teaching project.

EDSC 4550
Secondary Curriculum Instruction and Assessment
4:3:3 F, Sp
• Prerequisite: Admission to Professional Education Program or permission of instructor.
For Secondary Education students. Examines curricular history and issues, national, state, and district standards; and prepares preservice secondary students to write objectives, lesson plans, and units using appropriate generic models of instruction and assessment. Includes intensive field experience in public schools.

EDSC 4850
Student Teaching—Secondary
4-8:0:12-24 F, Sp
• Prerequisite: Admission to Professional Education Program. Successful completion of all professional education and content courses.
Culminating ten-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. It is the culminating requirement for students to be recommended for a secondary education license from the Utah State Office of Education.

EDSC 491R
Independent Study
2-4:0-4:0-12 On Sufficient Demand
• Prerequisite: Department Chair Approval
For Bachelor Degree seeking students and other interested persons. Offers independent study as directed at the discretion and approval of the department chairperson. May be repeated for up to four credits toward graduation.

EDSC 4980
Secondary Education Capstone Seminar
2:2:0 F, Sp
Covers application and interview process, resume writing, digital placement files, and legal aspects of being an educator.

ELECTRICAL AUTOMATION AND ROBOTICS TECHNOLOGY

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CAREER OPPORTUNITIES

Electrical Automation and Robotics Technology students may be employed in many different occupations found within the electrical trades. They may work in mining industries, steel mills, processing plants, oil refineries, power plants, manufacturing, semiconductor industries, electronics companies, and chemical industries. Job duties may include construction, fabrication, maintenance, troubleshooting, repair, calibration, testing, and design. They may work with automatic control systems, AC and DC control components, motors, programmable control, microprocessors, computers, and robots. Advancement to supervisor and management positions within the electrical field is frequently available.

PROGRAMS

Three options are available: Associate in Applied Science Degree, an Associate in Science Degree, and the Bachelor of Science in Technology Management. See Graduation Requirements in catalog for definitions.

Reminder: an overall grade point average of 2.0 (C) or above is required for graduation.

AAS IN ELECTRICAL AUTOMATION AND ROBOTICS TECHNOLOGY — 63-65 CREDITS

General Education Requirements:			16 Credits
•	ENGL 106A	Career Writing for Technology	2
•	Any approved Humanities or Fine Art		3
•	Any approved Behavioral Science, Social, or Political Science Distribution Course		3
•	Any approved Physical Education, Health, Safety or Environment Course		1
•	Any approved Life, Physical Science		2
•	EART 1050	Applied Electrical Math	5
Discipline Core Requirements:			21 Credits
•	EART 1130	Basic Electrical	4
or	ECT 1010	Basic Electronics DC/AC	
or	ECT 1060	Electrical Science I	
and	ECT 1070	Electrical Science II	
•	EART 1180	Basic Electrical Lab	
or	ECT 101L	DC/AC Circuits Lab	
or	ECT 106L	Electrical Science I Lab	0.5
and	ECT 107L	Electrical Science II Lab	0.5
•	EART 1260	Logic	2
•	EART 2110	Semiconductors Devices	6
•	EART 2160	Industrial Solid State Circuit	5
•	EART 2260	Advanced Logic	3
or	ECT 1150	Digital Circuits	
and	ECT 1160	Digital Circuits Lab	
Specialty Core Requirements:			25-28 Credits
Complete one of the following emphases (see detail below):			
•	Electrical Automation		25
or	Semiconductor Instrumentation and Maintenance		28

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 UVSC
4. Completion of GE and specified departmental requirements

Electrical Automation

Specialty Core Requirements:			25 Credits
•	EART 1250	Electrical Wiring and Code	2
•	EART 1270	DC and AC Machines	9
•	EART 2150	Hydraulics and Pneumatics	3
•	EART 2250	Programmable Logic Controller 1	5
•	EART 2270	Programmable Logic Controllers 2	6
Specialty Elective Requirements:			1 Credit
	Choose any pre-approved EART or ECT course		1

Semiconductor Instrumentation and Maintenance

Specialty Core Requirements:			28 Credits
•	EART 1440	DC Motors	3
•	EART 144L	DC Motor Controllers	1
•	EART 1450	AC Motors	3
•	EART 145L	AC Motor Drivers	1
•	EART 2450	Hydraulics & Pneumatics	2
•	EART 245L	Hydraulics & Pneumatics Lab	1
•	ECT 1720	System Configurations	3
•	ECT 281R	COOP	7
•	ECT 285R	COOP Correlated Class	1
•	EART 2750	Programmable Logic Controllers	
and	EART 275L	Programmable Logic Controllers Lab	
or	ECT 2310	Microprocessor and Computer Systems	4
•	EART 1250	Wiring and Code	2
or	BIT 1340	Electrical Code	

AS IN ELECTRICAL AUTOMATION AND ROBOTICS TECHNOLOGY — 63 CREDITS

General Education Requirements:			35 Credits
•	Complete General Education requirements as detailed in the General Education section of this catalog.		
Discipline Core Requirements:			16 Credits
•	Choose from EART or related courses (1000 level or higher)		16
Elective Requirements:			12 Credits
•	Electives (1000 level or higher)		12

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 UVSC.

AS IN ELECTRICAL AUTOMATION AND ROBOTICS TECHNOLOGY (CON'T) — 63 CREDITS

4. Completion of GE and specified departmental requirements.

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Electrical Automation and Robotics Technology

Specialty Core Requirements:			44 Credits
•	EART 1130	Basic Electrical	4
•	EART 1050	Applied Electrical Math	5
•	EART 1180	Basic Electrical Lab	5
•	EART 1260	Logic	2
•	EART 1270	DC and AC Machines	9
•	EART 2110	Semiconductors Devices	6
•	EART 2150	Hydraulics and Pneumatics	3
•	EART 2160	Industrial Solid State Circuit	5
•	EART 2250	Programmable Logic Controller 1	5
Specialty Elective Requirements:			1 Credit
•	Electives in EART based on chosen option		1

Notes:
No upper division Technology Management (ie Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

Electrical Apprenticeship

Electrical Apprentice courses are offered for Electrical Apprentices to complete the Utah State or other related instruction requirements. See Apprenticeship section of this catalog for Electrical Apprentice courses. The Electrical Apprentice courses can be used as requirements for an AAS Degree in Apprenticeship. For further information contact the Apprenticeship Advisor.

Due to the technical nature of the material in EART courses, additional reading and math instruction may be required. More information will be given during advisement.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

EART 1000
Survey of Electrical Automation and Robotics Technology
2:2:0 On Sufficient Demand
An introductory course for those interested in exploring the electrical and robotics field. Familiarizes students with the fundamentals of electricity. Includes career exploration, consumer awareness, manipulative skills, and craftsmanship.

EART 1050
Applied Electrical Math
5:5:0 F
Studies algebra as it applies to the electrical trade. Includes basic operations used in the solution of Ohm's law, series, parallel and combination circuits. Solves basic circuits by finding missing values. Covers the mathematics used to solve problems in series and parallel circuits made up of transformers, inductance, capacitance and resistors. Teaches the use of a calculator in solving problems pertaining to transformers and the right triangle, as it describes the current-voltage relationship in series and parallel circuits made up of inductors, capacitors and resistors. Emphasizes power factor correction. Completers should be able to understand mathematics as applied to DC or AC theory. Includes lecture and demonstrations.

EART 1130
Basic Electrical
4:4:0 F
Includes basic DC theory such as voltage, current, resistance, batteries, magnetism, and meters. Emphasizes lectures and films. Covers principles of DC circuits and troubleshooting of these circuits. Studies the application of AC theory to industrial and commercial applications in the electric field. Explains the basic construction and theory of inductance, capacitance and resistors dealing with L.C.R. circuits as they are used in the electrical or electronic fields. Includes lectures and demonstrations.

EART 1180
Basic Electrical Lab
5:0:15 F
Teaches basic DC theory such as voltage, current, resistance, batteries, magnetism, meters, wire sizing, splicing, soldering, and conduit bending. Includes observing and following safety procedures. Emphasizes lab experiences in all the above areas. Covers principles of DC circuits and troubleshooting of these circuits. Includes basic operations used in the solution of Ohm's law, series, parallel and combination circuits. Studies the application of AC theory to industrial applications in the electrical field. Covers the basic construction and theory of inductance, capacitance and resistors dealing with L.C.R. circuits as they are used in the electrical or electronic fields. Includes transformer connections for single phase and three phase devices. Includes theory and practical conduit bending. Emphasizes hands-on lab experiments with all the above circuits as well as power in inductors, capacitors and resistors as well as shaping circuits and passive filters. Completers should be able to wire circuits, size wire, solder, trouble shoot, correct power factor, and bend conduit.

EART 1250
Electrical Wiring and Code
2:1:3 Sp
• Prerequisite: EART 1130, 1050, and 1180; or departmental approval
Covers the National Electrical Code using theory, specifications, blueprints and installation methods pertaining to residential, commercial, and industrial applications. Includes lectures and lab experiences.

EART 1260
Logic
2:1:3 Sp
• Prerequisite: EART 1130, EART 1050, and EART 1180; or departmental approval
For students who desire a basic understanding of Digital Logic systems. Covers the basic logic levels, the 1's and 2's complement. Studies binary, decimal, octal, and hexadecimal numbers. Includes propagational delay, power lost, and noise. Solves problems using Boolean Algebra and DeMorgan's theorems. Students should also be able to minimize combinational gate circuits and troubleshoot. Includes lecture, demonstrations, and lab work emphasizing hands-on lab experiments with gate circuits.

EART 1270
DC and AC Machines
9:5:12 Sp
• Prerequisite: EART 1130, EART 1050, and EART 1180; or departmental approval
Covers installation, troubleshooting, preventive maintenance and repairs on DC and AC motors, generators and controllers. Trains students in the proper use of tools and test equipment needed in maintaining motors and controllers. Emphasizes hands-on lab experiences. Includes lecture, lab, and demonstrations. Completers should be able to work at entry-level skills maintaining motors and controllers in industrial and commercial settings. Includes lecture, demonstrations, and lab work.

EART 1440
DC Motors
3:3:0 On Sufficient Demand
• Prerequisite: ECT 1010 or equivalent
Course addresses installation, troubleshooting, preventive maintenance and repairs of DC generators and controllers and in the proper use of tools and test equipment needed in maintaining motors and controllers. Includes lecture and demonstrations.

EART 144L
DC Motors Lab
1:0:3 On Sufficient Demand
• Prerequisite: ECT 1010
Course focus is on actual installation, troubleshooting, preventive maintenance and repairs on DC generators and controllers, as well as the proper use of tools and test equipment needed in maintaining motors and controllers. Emphasizes hands-on lab experiences. Includes labs and demonstrations.

EART 1450
AC Motors
3:3:0 On Sufficient Demand
• Prerequisite: EART 1440 or equivalent
Course addresses installation, troubleshooting, preventive maintenance and repairs of AC motors, generators, and controllers. Concepts are developed which are associated with the proper use of tools and test equipment needed for maintaining motors and controllers. Course approach includes lecture and demonstrations.

EART 145L
AC Motors Laboratory
1:0:3 On Sufficient Demand
• Prerequisite: EART 144L
• Corequisite: EART 1450
A laboratory based course which addresses the hands-on aspects of installation, troubleshooting, preventive maintenance and repairs of AC motors, generators, and controllers. Emphasis is the proper use of tools and test equipment needed for maintaining motors and controllers. Course approach includes laboratory activities augmented with demonstrations.

EART 2020
Electricity for Mechanics
5:3:6 F, Sp
Studies basic principles of electricity, industrial wiring, electrical codes, motors, relays, controllers, and electrical safety. Covers the use of electrical components in conjunction with machines. Emphasizes the diagnosis and replacement of electrical components in mechanical systems. Uses conventional and electronic tests equipment. Completers should have entry level skills to work with modern electro/mechanical machinery.

EART 2030
Electronics for Mechanics
5:3:6 F, Sp
• Prerequisite: Completion of EART 2020 or departmental approval
Studies principles of digital electronics, circuit wiring, PLC, electronic and computer controllers, integrated circuits, and safety. Covers the use of electronic components in conjunction with machines. Emphasizes the diagnosis and replacement of electrical components mechanical systems. Uses conventional and electronic test equipment. Completers should have entry level skills to work with modern electro/mechanical machinery.

EART 2110
Semiconductors Devices
6:5:3 F
• Prerequisite: EART 1250, EART 1260, and EART 1270; or departmental approval
Introduces basic semiconductor theory. Examines the concept of the pn junction. Covers various diodes and their applications. Presents bipolar junction transistors (BJTs). Studies field-effect transistors (FETs). Covers power amplifiers. Introduces thyristors and other special semiconductor devices. Includes lecture, demonstrations, and lab work.

EART 2150
Hydraulics and Pneumatics
3:2:3 F
• Prerequisite: EART 1250, EART 1260, and EART 1270; or departmental approval
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. Completers should be able to work with hydraulic and pneumatic systems in correlation with related industrial electrical applications at entry-level jobs in the electrical maintenance field. Includes lecture, demonstration, and lab work.

EART 2160
Industrial Solid State Circuit
5:3:6 F
• Prerequisite: EART 1250, EART 1260, and EART 1270; or departmental approval
Covers theory and operation of industrial solid state power circuits, integrated circuit operational amplifiers, and AC/DC motor drives. Completers should have job entry-level competence in advanced industrial control with solid state control circuits, amplifiers, and variable speed drives. Includes lecture, demonstrations, and lab work.

EART 2250
Programmable Logic Controllers 1
5:3:6 Sp
• Prerequisite: EART 2110, EART 2150, and EART 2160; or departmental approval
Covers the theory, programming and industrial control system applications of small and medium sized programmable logic controllers (PLCs). Studies basic maintenance and troubleshooting techniques for programmable logic controllers. Includes lecture, demonstration, print reading, and lab projects with hands-on experience. Completers should be able to work in industry in related work at entry level positions with safety and environmental awareness.

EART 2260
Advanced Logic
3:2:3 Sp
• Prerequisite: EART 2110, EART 2150, and EART 2160; or departmental approval
Covers theory and industrial applications of Comparators, Decoders, Encoders, Multiplexers, Demultiplexers, Latches (SR and D), Flip Flops (SR, D, and JK), One-shots, Timers, Counters, and Shift Registers. Includes lecture, demonstrations, and lab projects with hands-on experience. Emphasizes implementation and troubleshooting of logic circuits. Completers should be able to work in industry in related work at entry level positions with safety and environmental awareness.

EART 2270
Programmable Logic Controllers 2
6:4:6 Sp
• Prerequisite: EART 2110, EART 2150, and EART 2160; or departmental approval
Covers the theory, implementation, and application of advanced Programmable Logic Controller instructions, functions, programming techniques, and data communications. Studies basic programming language and industrial control applications. Includes lecture, demonstration, and lab projects with hands-on experience. Completers should be able to work in industry at entry level positions with safety and environmental awareness.

EART 2450
Hydraulics and Pneumatics Fundamentals
2:2:0 On Sufficient Demand
This course addresses the fundamentals of hydraulic and pneumatic components and systems used in industrial applications. Focus is on pumps, motors, directional and flow control valves, cylinders, transmission, and fluids. Emphasizes maintenance, safety and environmental problems. As well as troubleshooting techniques and blue print reading. Includes lectures, demonstrations and CD instructional material.

EART 245L
Hydraulics and Pneumatics Fundamentals Laboratory
1:0:3 On Sufficient Demand
• Corequisite: EART 2450
This course addresses the fundamentals of hydraulic and pneumatic components and systems used in industrial applications. Focus is on the use of pumps, motors, directional and flow control valves, cylinders, transmission, and fluids. Emphasis is on maintenance, safety and environmental problems, as well as troubleshooting techniques and blue print reading.

EART 2750
Programmable Controllers
3:3:0 On Sufficient Demand
• Prerequisite: EART 1450 or equivalent
This course covers the theory, programming and industrial control system applications of small and medium sized programmable logic controllers (PLC's). Studies basic maintenance and troubleshooting techniques for programmable logic controllers. Includes lecture, demonstration, and print reading.

EART 275L
Programmable Controllers Laboratory
2:0:6 On Sufficient Demand
• Corequisite: EART 2750 or equivalent
This laboratory course addresses the "hands-on" aspects of programming and industrial control system applications of small and medium sized programmable logic controllers (PLC/s). Studies basic maintenance and troubleshooting techniques for programmable logic controllers. Course focus is on print reading and lab projects.

EART 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Prerequisite: Approval of Department Chair
Provides paid on-the-job work experience that relates to Electrical Automation and Robotics Technology (EART) in the student's major. Work experience, the related class, and enrollment are coordinated by the EART Cooperative Coordinator. Completers must individually set and complete goals/learning objectives based on the job description from their work assignment.

EART 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Prerequisite: 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.

ELECTRONIC AND COMPUTER TECHNOLOGY

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School of Computing, Engineering and Technology
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CAREER OPPORTUNITIES

Electronic and Computer Engineering Technicians use their knowledge of science, engineering, mathematics, and technical processes in research and development, manufacturing, sales, and customer service. They often apply the principles, designs, or procedures developed by engineering to practical situations. Many technicians assist engineers and scientists, especially in research and development. Other technicians, such as those in service jobs, work on their own.

Technicians working in design, production, or customer service use sophisticated measuring and diagnostic devices to test, adjust, and repair equipment. In many cases, they must understand the purpose for which the electronic device is being used. To design equipment for space exploration, for example, a technician must consider the need for minimum weight and volume and maximum resistance to shock, extreme temperature, and pressure.

In research and development, one of the largest areas of employment, technicians set up equipment, prepare experiments, calculate and record the results, often with the aid of computers, and assist engineers in developing laboratory equipment. Some build experimental equipment or prototype versions of newly designed equipment, and others do routine design work, sometimes using computer-aided design equipment.

In production, technicians usually follow the general directions of engineers and scientists, but often without close supervision. They may prepare specifications for components and devise and conduct tests to ensure product quality. They often supervise production workers to make sure prescribed procedures are followed.

As sales workers or field representatives for manufacturers, wholesalers or retailers, technicians give advice on the installation, operation, and maintenance of complex equipment and may write specifications and technical manuals.

Employment of electronics engineering technicians is expected to increase faster than the average for all occupations beyond 2000 due to anticipated continued strong demand for computers, communications equipment, and technical products for military, industrial, and consumer use. More technicians will be needed to help develop, produce, and service these products. Competitive pressures and advancing technology will force companies to improve and update product designs more rapidly than in the past, further adding to the growth requirements. Opportunities will be best for graduates of two-year postsecondary technical training programs.

PROGRAMS

Five options are available: Certificate in Computer Systems Maintenance, Diploma, Associate in Applied Science Degree, Associate in Science, and the Bachelor of Science in Technology Management Degree, with a Specialty in Electronic and Computer Technology.

The Computer Systems Maintenance certificate is a one year program for those desiring a computer maintenance background. The diploma is available for those who need a strong electronics background. The AAS degree Electronic and Computer Technology pre-major is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET, 111 Market Pl., Suite 1050, Baltimore, MD 21202, www.abet.org). All ECT majors are encouraged to earn the AAS degree. The Associate in Science degree with a pre-major in Electronics and Computer Technology is available for those interested in transferring to a four year program.

PREREQUISITES

Students from vocational high schools, military service, industry, and transfer students often have training in electronics sufficient to receive credit for the prerequisite math course and the first semester course ECT 1010: Basic Electronics: DC/AC. Students who have had Algebra II in high school, but no exposure to electronics may elect to include ECT 1010 as part of the first semester (as shown). Students who are unsure should make an appointment with the department advisor for consultation.

CERTIFICATE IN COMPUTER SYSTEMS MAINTENANCE — 31 CREDITS

Discipline Core Requirements:			31 Credits
• ECT	1100	Electronics Fundamentals	4
• ECT	1150	Digital Devices and Circuits	3
• ECT	1170	Software Tools for Electronics	2
• ECT	1300	Interconnection Technology	3
• ECT	1430	Customer Communications	1
• ECT	1570	Programming Tools for Repair	3
• ECT	1650	Network Maintenance	4
• ECT	1710	Computer Maintenance	3
• ECT	1720	System Configurations	3
• ECT	2710	Computer Maintenance II	5

Graduation Requirements:
1 Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA).

Note:
Students from vocational high schools, military service, industry, and transfer students often have training in electronics sufficient to receive credit for the prerequisite math course and the first semester course ECT 1010: Basic Electronics: DC/AC. Students who have had Algebra II in high school, but no exposure to electronics may elect to include ECT 1010 as part of the first semester. Students who are unsure should make an appointment with the department advisor for consultation.

DIPLOMA IN ELECTRONIC AND COMPUTER TECHNOLOGY — 51 CREDITS

Discipline Core Requirements:			51 Credits
• ECT	1180	Advanced Software Tools for Electronics	3
• ECT	1010	Basic Electronics: DC/AC	4
• ECT	101L	DC/AC Circuits Laboratory	2
• ECT	1110	Active Devices and Circuits	5
• ECT	1120	Active Devices and Circuits Laboratory	2
• ECT	1150	Digital Devices and Circuits	3
• ECT	1160	Digital Devices and Circuits Laboratory	2
• ECT	1170	Software Tools for Electronics	2
• ECT	1210	Analog Circuits	3
• ECT	1250	Introduction to Calculus for Electronics	5
or MATH	1210	Calculus I	
• ECT	1270	Assembly Language for Electronics	2
• ECT	2310	Microprocessor and Computer Systems	4
• ECT	2380	Electro-Mechanics for Electronics	2
• ECT	2410	Communications Systems	4
• ECT	2420	Communications Systems Laboratory	4
• ECT	2480	Graduation Seminar	2
• ECT	257R	Special Topics in Computer Technology	2
Recommended courses:			
• ECT	2320	Microprocessor and Computer Laboratory	(4)
• ECT	2350	Calculus for Electronics	(3)
or MATH	1220	Calculus II	(5)

Graduation Requirements:
1 Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA).

AAS IN ELECTRONIC AND COMPUTER TECHNOLOGY — 64-69 CREDITS

General Education Requirements: 11-14 Credits
- ENGL 1010 Introduction to Writing 3
- Any approved Behavioral Science, Social or Political Science Course 2
- Any approved Physical Education, Health, Safety or Environment Course 1

For Electronic and Computer Technology emphasis, complete the following:
- COMM 1020 Public Speaking 3
- PHYS 2210 Physics for Scientists and Engineers I 4
- PHYS 2215 Physics for Scientists and Engineers I Lab 1

For all other Emphases, complete the following:
- COMM 1020 Public Speaking 3
- or Any Humanities, Fine Arts, or Language Distribution Course
- Any Approved Physical or Biological Science 2

Discipline Core Requirements: 11 Credits
- ECT 1010 Basic Electronics: DC/AC 4
- ECT 101L DC/AC Circuits Laboratory 2
- ECT 1150 Digital Devices and Circuits 3
- ECT 1160 Digital Devices and Circuits Laboratory 2

Specialty Core Requirements: 42-47 Credits

Complete one of the following emphases (see detail below):
- Electronic and Computer Technology 43
- Integrated Circuit Layout and Design 47
- Pre-Nanotechnology 42

Graduation Requirements:
1. Completion of a minimum of 64-69 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 UVSC
4. Completion of GE and specified departmental requirements

Electronic and Computer Technology (ABET accredited)

Specialty Core Requirements: 43 Credits
- ECT 1110 Active Devices and Circuits 5
- ECT 1120 Active Devices and Circuits Laboratory 2
- ECT 1170 Software Tools for Electronics 2
- ECT 1180 Advanced Software Tools for Electronics 3
- ECT 1210 Analog Circuits 3
- ECT 1250 Introduction to Calculus for Electronics 5
- or MATH 1210 Calculus I
- ECT 1270 Assembly Language for Electronics 2
- ECT 2310 Microprocessor and Computer Systems 4
- ECT 2320 Microprocessor and Computer Laboratory 4
- ECT 2350 Calculus for Electronics 3
- or MATH 1220 Calculus II
- ECT 2380 Electro-Mechanics for Electronics 2
- ECT 2410 Communications Systems 4
- ECT 2420 Communications Systems Laboratory 4

Recommended Course:
- ECT 257R Special Topics in Computer Technology (1)

Integrated Circuit Layout and Design

Specialty Core Requirements: 35 Credits
- ECT 1210 Analog Circuits 3
- ECT 2380 Electro-Mechanics for Electronics 2
- ECT 257R Special Topics in Computer Technology 2
- ECT 1610 Foundations of Materials Science 3
- ECT 1620 Introduction to Integrated Circuits 3
- ECT 2620 Digital Integrated Circuit Layout 3
- ECT 2630 Analog Integrated Circuit Layout 3
- ECT 2640 Full Chip Layout 3
- ECT 2650 Integrated Systems Layout 3
- ECT 2670 Microfabrication Chemistry 3
- ECT 2610 Semiconductor Device Physics 2
- EART 1050 Applied Electrical Math 5

Specialty Elective Requirements: 12 Credits

Student may take either (EART 2110 & EART2160) or ECT 1110 5
- EART 2110 Semiconductors - devices
- and EART 2160 Industrial Solid State
- or ECT 1110 Active Devices and Circuit Theory

AAS IN ELECTRONIC AND COMPUTER TECHNOLOGY (CON'T) — 64-69 CREDITS

Students may take either EART 2260 or (ECT 1170 & ECT 1180) 3
- EART 2260 Advanced Logic
- or ECT 1170 Software Tools for Electronics
- and ECT 1180 Advanced Software Tools for Electronics

Students may take either EART 2250 or EART 2750 or ECT 2310 4
- EART 2250 Programmable Logic Controller I
- or EART 2750 Programmable Controllers
- or ECT 2310 Microprocessor and Computer Systems

Pre-Nanotechnology

Specialty Core Requirements: 21 Credits
- ECT 1610 Foundations of Materials Science 3
- ECT 1620 Introduction to Integrated Circuits 3
- ECT 2670 Microfabrication Chemistry 3
- ECT 251R Special projects 7
- or ECT 285R Cooperative Correlated Class 1
- and ECT 281R Coop - IC Processes 6
- EART 1050 Applied Electrical Math 5

Specialty Elective Requirements: 21 Credits

Complete 21 credits from the following: 21

Student may take either EART 2110 or (ECT 1110 & ECT 1120)
- EART 2110 Semiconductors - devices
- or ECT 1110 Active Devices and Circuit Theory
- and ECT 1120 Active Devices and Circuits Laboratory

Students may take either EART 2260 or (ECT 1170 & ECT 1180)
- EART 2260 Advanced Logic
- or ECT 1170 Software Tools for Electronics
- and ECT 1180 Advanced Software Tools for Electronics

Students may take either EART 2250 or (EART 2750 & EART 275L) or (ECT 2310 & ECT 2320)
- EART 2250 Programmable Logic Controller I
- or EART 2750 Programmable Controllers
- and EART 275L Programmable Controllers Laboratory
- or ECT 2310 Microprocessor and Computer Systems
- and ECT 2320 Microprocessor and Computer Systems Lab

Students may take one of the following:
- ECT 1620 Introduction to Integrated Circuits
- or ECT 2740 Introduction to Microlithography
- or ECT 2680 Silicon Processes
- or ECT 2690 Thin Film Processes

AS PRE MAJOR IN ELECTRONIC AND COMPUTER TECHNOLOGY — 63 CREDITS

General Education Requirements: 35 Credits
- Complete General Education requirements as detailed in the General Education section of this catalog.

Discipline Core Requirements: 16 Credits
- Choose from ECT or related courses (1000 or higher) 16

Elective Requirements: 12 Credits
- Electives (1000 or higher) 12

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 UVSC
4. Completion of GE and specified departmental requirements

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Electronic and Computer Technology

Specialty Core Requirements: 41 Credits
- ECT 1010 Basic Electronics: DC/AC 4
- ECT 101L DC/AC Circuits Laboratory 2
- ECT 1110 Active Devices and Circuits 5
- ECT 1150 Digital Devices and Circuits 3
- ECT 1160 Digital Devices and Circuits Laboratory 2
- ECT 1170 Software Tools for Electronics 2
- ECT 1180 Software Tools for Electronics II 3
- ECT 1210 Analog Circuits 3

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

- ECT 1250 Introduction to Calculus for Electronics 5
- ECT 2310 Microprocessor and Computer Systems 4
- ECT 2320 Microprocessor and Computer Laboratory 4
- ECT 2380 Electro-Mechanics for Electronics 2
- ECT 257R Special Topics in Computer Technology 2

Specialty Elective Requirements: 4 Credits
- Approved electives based on chosen option 4

Notes:
No upper division Technology Management (ie Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

Due to the technical nature of the material in ECT courses, additional reading instruction may be required. More information will be given during advisement.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

ECT 1000
Survey of Electronics
2:2:0 — F, Sp

An overview course for those unfamiliar with the field of electronics. Covers basic electrical theory, electronic devices, applications, and history. Emphasizes recent trends in the electronic industry and effects on everyday life. Includes lecture, demonstration, video presentation, and field trip.

ECT 1010
Basic Electronics—DC/AC
4:4:0 — F

- Corequisite: ECT 1050 or equivalent

An introductory and foundation course for Electronic and Computer Technology majors. Covers fundamental DC/AC concepts. Studies basic electrical physics, DC/AC sources, resistance, basic circuits and laws, capacitance, inductance, transformers, superposition, the sine wave, reactance, impedance, resonance, and filters. Includes lecture, demonstration, computer simulation, and video presentation.

ECT 101L
DC/AC Circuits Laboratory
2:0:6 F
- Prerequisite: ECT 1050 or equivalent
- Corequisite: ECT 1010

Emphasizes finding agreement between analytical and experimental results as DC/AC theory is applied in a practical laboratory environment. Studies design, analysis, and building of circuits using passive electrical devices. Includes hands-on experience with equipment and demonstration.

ECT 1020
Basic Electronic Math
2:2:0 On Sufficient Demand
- Prerequisite: High School Algebra II
- Corequisite: ECT 1010

Designed for Electronic and Computer Technology majors who are not enrolled in a math course in the Math Department or the School of General Academics. Provides a basic mathematical base for solving problems associated with Basic Electronics: DC/AC. Provides mathematical applications to the physical world, teaches students to work in teams, learn to estimate answers, use computer algebra systems, and graphic calculators. Presents new ideas graphically, numerically, and analytically. Applies deductive reasoning to problem solving and troubleshooting.

ECT 1030
Electronics Safety
1:1:0 On Sufficient Demand
Teaches safety to those desiring to work with electricity and electronic equipment. Covers topics relating to safety on the job in a high technology, electronics environment. Studies ESD, ergonomics, FCC radiation rules, and hazardous materials disposal. Includes lecture, demonstration, and hands-on activities. Completers should be able to work safely around a variety of electrical and electronics equipment and know what to do in case of an emergency.

ECT 1050
Mathematics for Electronics
5:5:0 F
- Prerequisite: High School Algebra II, or MAT 0990 or MAT 0950

Covers basic mathematical principles needed for DC/AC theory and provides a mathematical base for future studies. Applies theories and laws to the components and circuits covered in ECT 1010 and ECT 101L. Includes calculator use and programming, graphics, algebra, and trigonometry concepts. Includes lecture and demonstration.

ECT 1060
Electrical Science I
2:2:0 Su, F, Sp
Foundation course in Electronic and Computer Technology. Covers typical topics in DC circuit theory beginning with electrical quantities and measurements then progressing through electromagnetism and inductance. Course available via the internet.

ECT 106L
Electrical Science I Laboratory
0.5:0:1.5 Su,F,Sp
Foundation course in Electronic and Computer Technology. Designed for those who need a short intense laboratory course in electronics. May be used by those who need to validate their proficiencies in electronics which may have been developed during independent study or in non-traditional course work such as the internet. Focus is on DC principles and circuits.

ECT 1070
Electrical Science II
2:2:0 Su, F, Sp
- Prerequisite: ECT 1060 or equivalent

Foundation course in Electronic and Computer Technology. Covers typical topics in AC circuit theory beginning with sinusoidal alternating current waveforms and progressing through passive filters and pulse waveform response. Course available via the internet.

ECT 107L
Electrical Science II Laboratory
0.5:0:1.5 Su,F,Sp
- Prerequisite: ECT 1070, ECT 1060 or equivalent

Foundation course in Electronic & Computer Technology. Designed for those who need a short intense laboratory course in electronics. May be used by those who need to validate their proficiencies in electronics which may have been developed during independent study or in non-traditional course work such as the internet. Subject focus is on AC principles and circuits.

ECT 1100
Electronics Fundamentals
4:3:3 On Sufficient Demand
An introductory and foundation course in electronics for non-majors. Covers fundamental electronic circuit concepts. Studies basic electrical physics, DC/AC sources, resistance, capacitance, inductance, transformers, circuit configurations, basic laws and network theorems, the sinewave, reactance, impedance, resonance, frequency response, semiconductor and IC basics. Includes lecture, lab, demonstration, video presentations, and computer simulation.

ECT 1110
Active Devices and Circuits
5:5:0 Sp
- Prerequisite: ECT 1010 and ECT 1050 or equivalent
- Corequisite: ECT 1120 or equivalent

For students with DC/AC background. Covers semiconductor theory beginning with the pn junction diode. Studies the operation of semiconductors and the design and analysis of basic semiconductor circuits. Includes diode characteristics and circuits, physics of semiconductors, bi-polar and field effect transistors, basic transistor circuits and amplifiers, thyristors (SCRs), AC analysis and frequency effects in transistors and their circuits. Includes lecture, demonstration, and computer simulation.

ECT 1120
Active Devices and Circuits Laboratory
2:0:6 Sp
- Prerequisite: ECT 101L
- Corequisite: ECT 1110

Provides laboratory experience for ECT 1110 students. Studies the design, analysis and building of circuits using semiconductor devices. Emphasizes applying theory to practical situations in design and construction of basic diode circuits, transistor biasing and amplifier circuits, and other related circuits. Includes hands-on experience with common test equipment, demonstration, and observation.

ECT 1150
Digital Devices and Circuits
3:3:0 F
Presents the concepts of basic logic design. Studies analysis, troubleshooting, repairing, and designing of sequential digital circuits. Includes number systems, codes, Boolean algebra, truth tables, Karnaugh maps, basic logic components (gates, flip-flops, counters, registers, timers, etc.), and state machine design. Includes lecture, demonstration, and computer simulation.

ECT 1160
Digital Devices and Circuits Laboratory
2:0:6 F
- Corequisite: ECT 1150

Provides laboratory experience for ECT 1150 students. Studies the design, analysis, and building of digital circuits. Emphasizes applying theory to practical situations in design, construction, and troubleshooting of combinational and sequential digital circuits. Includes hands-on experience with common test equipment, demonstration, and observation.

ECT 1170
Software Tools for Electronics
2:1:3 F
Introduces the computer as a problem solving tool for electronic problems. Uses basic computer hardware, DOS, word processors, spreadsheets, circuit analysis, and circuit drawing software. Emphasizes hands-on computer experience. Studies uses of the computer to write lab reports, draw schematics, solve difficult problems, and graph results.

ECT 1180
Advanced Software Tools for Electronics
3:3:0 Sp
- Prerequisite: ECT 1010 or equivalent

Course focuses on the development of electronic virtual instrumentation. Using LabVIEW students learn to use graphical programming language which uses icons instead of lines of text to create applications specific to their analytical needs. The focus is on data flow programming, where data determine execution. Application will be developed which will communicate with remote, data generating sites, via the web.

ECT 1210
Analog Circuits
3:3:0 **Sp**
• Prerequisite: ECT 1110, ECT 1120
Covers designing and analyzing circuits using discrete bi-polar, FET and other devices along with operational amplifiers and other linear integrated circuits in meaningful applications. Includes lecture, demonstration, and computer simulation.

ECT 1220
Analog Circuits Laboratory
3:0:9 **On Sufficient Demand**
• Prerequisite: ECT 1110, ECT 1120
• Corequisite: ECT 1210
Designed to provide the laboratory experience to complement ECT 1210. Enrollment should be concurrent. Studies designing, building, and performing measurements with a variety of electronic application circuits. Covers the building and testing of circuits utilizing semiconductor devices and linear integrated circuits. Emphasizes getting agreement between analytical and experimental results as the theory learned in ECT 1210 is applied in the lab. Includes hands-on experience with common test equipment, demonstration, and observation.

ECT 1250
Introduction to Calculus for Electronics
5:5:0 **Sp**
• Prerequisite: ECT 1050 or equivalent
Designed to prepare and introduce Electronic and Computer Technology majors to calculus and its use in electronics. Applies the math learned to electronic devices and circuits. Includes a review of algebra and trigonometry and basic differential calculus concepts.

ECT 1270
Assembly Language for Electronics
2:1:3 **F**
• Prerequisite: ECT 1170
A core class for Electronic and Computer Technology majors. Includes practical applications of assembly language in real world situations. Studies programming in assembly language to the extent of exercising hardware and performing common routines. Covers debuggers, micro-processor architecture, assembly language procedures, memory segments, I/O, modular design, firmware, and OS routines. Emphasizes hands-on experiences with a computer system.

ECT 1300
Interconnection Technology
3:2:3 **On Sufficient Demand**
• Prerequisite: ECT 1000 or ECT 1100 or ECT 1110
Studies wiring, cabling, and connectors, transmission lines, hardware interconnect standards, fiber optics connections, sensors, and transducers, network connections, telephone and modem connections, Internet connections, etc. Includes lecture, lab, demonstration, video presentation, and computer simulation.

ECT 1430
Customer Communications
1:1:0 **On Sufficient Demand**
For students studying Computer Systems Maintenance. Includes customer relations, business communications, telephone etiquette, and documentation. Covers cost of repairs and service. Includes how to explain to customers costs associated with their bills.

ECT 1570
Programming Tools for Repair
3:1:6 **On Sufficient Demand**
• Corequisite: ECT 1270
For the Computer Systems Maintenance Certificate. Presents fundamentals in batch file programming, HTML, and Java programming. Studies debugging and fault isolation techniques using software including assembly language. Covers system diagnostic software and virus protection utilities.

ECT 1610
Foundations of Nanoscale Materials Chemistry
3:3:0 **On Sufficient Demand**
Surveys the field of nanoscale materials chemistry with emphasis on properties of matter and the techniques by which matter can be altered to create materials required for the future. Introduces processes, materials and equipment used in integrated circuit and micro mechanical manufacturing. Focuses on ceramics, solids, polymers and composite materials. Considers processes such as thermal oxidation, lithography, thin film deposition, metrology and packaging.

ECT 1620
Introduction to Integrated Circuit Layout
3:3:0 **On Sufficient Demand**
• Corequisite: ECT 1610
Introduces Integrated Circuit layout and design. Integrates electronic engineering design schematics with silicon semiconductor process constraints. Addresses design rules and constraints imposed by MOS manufacturing processes.

ECT 1650
Network Maintenance
4:3:3 **On Sufficient Demand**
For the Computer Systems Maintenance Certificate. Presents fundamentals of networks and networking. Studies LAN, WAN, peer to peer, Internet, and intranet configurations. Emphasizes installation, maintenance, and troubleshooting. Studies cabling and connectors, transmission lines, hardware interconnect standards, network connections, telephone and modem connections, and Internet connections.

ECT 1710
Computer Maintenance
3:2:3 **F, Sp**
For students studying Computer Systems Maintenance. Presents concepts of computer architecture. Teaches troubleshooting techniques and BUS conflict resolution. Studies component failure, floppy disk drives, keyboards, video graphics hardware, and power supplies. Additional topics may be included according to current technology. Includes hardware troubleshooting to board level.

ECT 1720
System Configurations
3:2:3 **On Sufficient Demand**
• Prerequisite: ECT 1710
For the Computer Systems Maintenance Certificate. Presents installation and configuration of the major systems. Studies basic operating systems requirements, plug and play, configuration of peripherals, resolution of I/O, IRQ, and DMA channel conflicts.

ECT 2110
DC/AC Circuits
5:5:0 **On Sufficient Demand**
• Prerequisite: High School Algebra II
• Corequisite: ECT 1050 or MATH 1060
Covers fundamental DC/AC concepts. Studies basic electrical physics, DC/AC sources, resistance, capacitance, inductance, transformers, circuit configurations, basic laws and network theorems, the sinewave, reactance, impedance, resonance, and frequency response. Includes lecture, demonstration, computer simulation, and video presentation.

ECT 2210
Active Devices and Circuits for Engineering
5:4:3 **On Sufficient Demand**
• Prerequisite: ECT 2110 and MATH 1060 or equivalent
For students with DC/AC background. Covers semiconductor theory beginning with the pn junction diode. Presents the operation of semiconductors and the design and analysis of basic semiconductor circuits. Includes diode characteristics and circuits, physics of semiconductors, bi-polar and field effect transistors, basic transistor circuits and amplifers, thyristors (SCRs), AC analysis and frequency effects in transistors and their circuits. Includes lecture, demonstrations, and computer simulation.

ECT 2310
Microprocessor and Computer Systems
4:4:0 **F**
• Prerequisite: ECT 1150, ECT 1270
Studies programming in assembly language, building computer interfaces, and operating digital test equipment. Includes microprocessor hardware organization, microprocessor machine instructions, input-output peripheral equipment, memory elements, control elements, data transmittal systems, interfacing, digitized test equipment, diagnostic programming, computer control of processes, robotics, etc.

ECT 2320
Microprocessor and Computer Laboratory
4:0:12 **F**
• Prerequisite: ECT 1150, ECT 1270
• Corequisite: ECT 2310
Lab work includes microprocessor hardware organization, microprocessor machine instructions, input-output peripheral equipment, memory elements, control elements, data transmittal systems, interfacing, digital test equipment, diag-

nostic programming, computer control of processes, robotics, etc. Emphasizes lab experiences with an industry-popular microprocessor system. Lab assignments include practical testing, evaluation and design work on digital systems. Involves programming in assembly language, building computer interfaces, and operating digital test equipment.

ECT 2350
Calculus for Electronics
3:3:0 F
• Prerequisite: ECT 1250
Designed as a continuation of ECT 1250. Includes differential calculus and integral calculus concepts, Fourier series, and introduction to differential equations. Applications are made to electronics.

ECT 2380
Electro-Mechanics for Electronics
2:2:0 F
• Prerequisite: ECT 1150, ECT 1210
Covers fundamental concepts enabling students to use transducers, lasers, fiber optics, sensors, motors and relays in electronic circuit applications. Emphasizes techniques of electronic and computer interface with mechanical systems.

ECT 2400
Communications for Multimedia
3:3:0 On Sufficient Demand
• Prerequisite: ECT 1100, ECT 1300
For non-electronics majors. Provides training in theory relating to electronic communications systems. Emphasizes TV, video equipment, radio communications, digital transmission, multiplexing, stereo systems, transmission lines, antennas, microwave, radar, other communications systems and up-to-date circuits and devices as they are related to these systems and to the operation and automatic controls of remote communication systems. Includes lecture demonstration and computer simulation. Completers should be able to work with a variety of communications equipment.

ECT 2410
Communications Systems
4:4:0 Sp
• Prerequisite: ECT 1210, ECT 1220, ECT 2350
Designed for Electronic and Computer Technology majors in their last semester. Provides training in theory and circuit analysis relating to electronic communications systems. Studies TV broadcast receivers and transmitters, video equipment, radio communications, digital transmission, multiplexing, stereo systems, transmission lines, antennas, microwave, radar, other communication systems, up-to-date circuits and devices as they are related to these systems, and the operation and automatic control of remote communication systems. Includes lecture, demonstration, and computer simulation. Completers should be able to work with a variety of communications equipment.

ECT 2420
Communications Systems Laboratory
4:0:12 Sp
• Prerequisite: ECT 1210, ECT 1220, ECT 2350
• Corequisite: ECT 2410
Designed as a laboratory course associated with ECT 2410. Includes testing and evaluating the operation of subsystems of more advanced electronic systems. Provides laboratory experience with communication circuits, sophisticated specialized test equipment and modem measurement techniques. Includes hands-on experience with common test equipment, demonstration, and observation. Completers should have working experience with communications circuits and equipment.

ECT 2480
Graduation Seminar
2:2:0 Sp
• Prerequisite: ECT 2310, ECT 2320 (Normally taken during the last semester of program)
Designed as a training course for professional development and a general review of fundamental principles of electronics. Professional development includes job interview, skill development, resume writing, and job search techniques. A special project, chosen in consultation with the instructor, will be completed and demonstrated by each student. Completers should be ready for job interviews.

ECT 251R
Special Topics in Electronics
1-5:0-5:0-15 F, Sp
• Prerequisite: Consent of instructor
Designed for students interested in specific topics in electronics. Can be used as an elective. Will vary in its content to include relevant and changing topics in the electronics field. Emphasizes hands-on experience along with lectures and demonstrations. Completers should be able to converse confidently with others about the topics covered and perform technician tasks.

ECT 257R
Special Topics in Computer Technology
1-5:0-5:0-15 Sp
• Prerequisite: Consent of instructor
Designed for students interested in specific topics in computer technology. Can be used as an elective. Will vary in its content to include relevant and changing topics in the computer field. Emphasizes hands-on experience along with lectures and demonstrations. Completers should be able to converse confidently with others about the topics covered and perform related technical tasks.

ECT 2610
Semiconductor Device Physics
2:2:0 On Sufficient Demand
• Prerequisite: ECT 1610 or equivalent, ECT 1620, ECT 2640
An introductory course, primarily for students in electronic technologies, which treats the physics of semiconductor materials and devices. Components of the course covers subjects on fundamental solid state and semiconductor physics which are essential for device applications. Additionally, covers basic device physics and structure, operation principles, general characteristics, and applications of various semiconductor devices.

ECT 2620
Digital Integrated Circuit Layout
3:3:0 On Sufficient Demand
• Prerequisite: ECT 1620 or equivalent
An advanced course into the practice of digital integrated circuit layout and design. Integrates electronic engineering design schematics with silicon semiconductor process constraints. Addresses critical process design rules and constraints imposed by representative manufacturing processes.

ECT 2630
Analog Integrated Circuit Layout
3:3:0 On Sufficient Demand
• Prerequisite: ECT 1620 or equivalent; ECT 2620 or equivalent
An advanced course into the practice of Analog Integrated Circuit Layout and design. Integrates electronic engineering design schematics with silicon semiconductor process constraints. Addresses critical process design rules and constraints imposed by representative analog circuit manufacturing processes.

ECT 2640
Full Chip Layout
3:3:0 On Sufficient Demand
• Prerequisite: ECT 2630 or equivalent
An advanced course into the practice of integrating both Analog and Digital Circuit layout and design. Focus is toward mixed signals as they are integrated into entire chip. Integrates electronic engineering design schematics with silicon semiconductor process constraints. Addresses critical process design rules and constraints imposed by representative manufacturing processes.

ECT 2650
Integrated Circuit Systems Layout
3:3:0 On Sufficient Demand
• Prerequisite: ECT 2630 or equivalent
An advanced course into the techniques associated with full systems layout and design which may include micro electro-mechanical systems. This course integrates electronic engineering design schematics with electromechanical systems as well as silicon semiconductor process constraints. Addresses critical process design rules and constraints imposed by the overall organization on silicon in systems manufacturing.

ECT 2670
Microfabrication Chemistry
3:3:0 On Sufficient Demand
• Prerequisite: ECT 1610 or equivalent, ECT 1620, ECT 2640
An advanced course into chemical processes used in the design and implementation of material properties derived from nanoscale structure. Included will be how processing can change structure and therefore properties and use of the material. Course will address how

materials selection can be used to optimize performance. Systems will be developed which will incorporate and integrate microelectronic and micromachining.

ECT 2680
Silicon Processes
3:3:0 On Sufficient Demand
• Prerequisite: Instructor Approval
This course is designed for students who are interested in nanoscale manufacturing processes. The focus will be on the chemistry of silicon, not only as a substrate but also as a reactive dielectric.

ECT 2690
Thin Film Processes
3:3:0 On Sufficient Demand
• Prerequisite: Instructor Approval
An advanced course designed for students who are interested in nanoscale manufacturing processes. The focus will be on the chemistry of Thin Film deposition process not only as a technique but also as a mechanism by which unique materials may be developed.

ECT 2710
Computer Maintenance II
5:4:3 On Sufficient Demand
• Prerequisite: ECT 1710
For the Computer Systems Maintenance Certificate. Presents advanced concepts of computer architecture and operating systems integration. Studies advanced trouble-shooting techniques, BUS conflict resolution, and component failure. Includes hardware troubleshooting at the component level. Preparation for the A certification exam.

ECT 2730
Multimedia Communications Laboratory
1:0:3 On Sufficient Demand
A capstone laboratory course for MCT. Includes hands-on installation and troubleshooting experiences with computer and other multimedia equipment. Completers should be familiar with current equipment and techniques used to maintain multimedia equipment.

ECT 2740
Introduction to Microlithography
3:3:0 On Sufficient Demand
• Prerequisite: Instructor Approval
This course is designed for students who are interested in nanoscale manufacturing processes. The focus will be on the challenges associated with lithographic processes.

ECT 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: ECT 285R
Provides paid, on-the job work experience in electronics and computer technology. Work experience and course enrollment are coordinated by the Cooperative Coordinator. Includes student, employer, and coordination evaluations, on-site work visits, written assignments, and oral presentations. Gives experience in writing and completing individualized work objectives that improve present work performance.

ECT 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: ECT 281R
Designed to identify on-the-job problems and to remedy those problems through in-class discussion and study. Studies identifying and maximizing service opportunities. Students register for this class with approval of the Cooperative Coordinator. Cooperative credits may be used as technical electives or in place of some of the laboratory classes if approved in advance by the department chairperson. 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.

ECT 299R
VICA
1:1:0 On Sufficient Demand
For Electronics and Computer 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 responsibility, vocational and leadership skills through participation in educational, vocational, civic, recreational, and social activities. Students may participate in local, state, and national contests.

ECT 3150
Digital Devices/Circuits and Introduction to Microprocessors
4:3:3 On Sufficient Demand
• Prerequisite: ECT 2110
For engineering majors. Presents the concepts of basic logic design. Studies analysis, troubleshooting, repairing and designing of sequential digital circuits. Includes number systems, codes, Boolean algebra, truth tables, Karnaugh maps, basic logic components (gates, flip-flops, counters, registers, timers, etc.), and state machine design. Includes introduction to microprocessors.

ECT 4310
Microprocessor and Computer Systems with Analog/Digital Interface
4:4:0 On Sufficient Demand
• Prerequisite: ECT 3150
For engineering majors. Studies programming in assembly language, building computer interfaces, and operating digitized test equipment. Includes microprocessor hardware organization, microprocessor machine instructions, input-output peripheral equipment, memory elements, control elements, data transmittal systems, interfacing, digitized test equipment, diagnostic programming, computer control of processes, and interfacing with analog and digital systems.

TCT 1110
Introduction to Telecommunications Technology
3:3:0 On Sufficient Demand
Studies basic communications concepts including information theory, modulation techniques, multiplexing, sampling, and spectral analysis. Teaches the differences between digital and analog transmission. Builds an understanding of the differences between packet switching and circuit switching networks. Reviews the historical development of telecommunications and introduces voice and data communications networks.

TCT 1120
Electronic Systems Test and Measurement
2:2:0 On sufficient Demand
• Corequisite: TCT 112L
Introduces the fundamentals of electricity. Studies basic techniques of test and measurement of electrical and electronic systems. Teaches the operation of common test instruments. Studies resistance, heat, power, voltage, current inductance, capacitance, transformers, semiconductors, operational amplifiers, and logic gates. Examines schematic symbols, diagrams, and signal flow diagrams.

TCT 112L
Electronic Systems Test and Measurement Laboratory
2:0:6 On Sufficient Demand
• Corequisite: TCT 1120
Covers operation of digital multimeter, oscilloscope, logic probe, logic analyzer and spectrum analyzer to perform various measurements in a lab setting. Teaches voltage, current, resistance, inductance, capacitance, and power measurements. Studies diode and transistor junction measurements and basic soldering of electronic components.

TCT 1130
Introduction to Digital Circuits and Systems
4:2:6 On Sufficient Demand
Studies the binary number system. Presents boolean algebra to understand the design of digital circuits. Studies basic electronic devices that implement boolean logic including AND, OR, NAND, NOR, XOR gates. Uses Karnaugh maps to reduce complex boolean expressions. Introduces sequential logic and state machines preparatory to the study of stored program computer architecture. Studies the various types of computer memory systems as well as various input/output interfaces.

TCT 1210
Introduction to Digital Communications
3:3:0 On Sufficient Demand
• Prerequisite: TCT 1110
• Corequisite: TCT 121L
Introduces data communications fundamentals. Studies data encoding techniques, clock recovery, clock jitter, noise impairment, bandwidth impairment, cabling, packetization, error detection and recovery. Teaches parallel data links, serial data links, media access protocols, Ether-

net physical link, token ring networks and asynchronous transfer mode networks.

TCT 121L
Digital Communications Laboratory
2:0:6 On Sufficient Demand
• Corequisite: TCT 1210
Presents methods of building, testing, monitoring, and troubleshooting digital data networks. Studies cable construction and testing, test equipment operation, Ethernet data link layer testing and monitoring in a hands-on laboratory environment.

TCT 1220
Telephony Systems Theory
4:4:0 On Sufficient Demand
• Prerequisite: TCT 1110
• Corequisite: TCT 122L
Studies fundamentals of the world wide public switch telephone network. Includes history of the public telephone system, human voice characteristics, twisted pair characteristics, in-band signaling, DTMF signaling, central office switching, trunk circuits, multiplexing and private branch exchange. Covers digital telephony, call switching, echo suppression, modems, T1 trunks, SS7 call control protocol, integrated services digital networks (ISDN), digital subscriber lines (DSL) and voice over packet switched networks.

TCT 122L
Telephony Systems Laboratory
2:0:6 On Sufficient Demand
• Corequisite: TCT 1220
Studies methods of construction, testing, and monitoring of telephone infrastructure. Includes telephone cabling, termination, tracing, T1 testing and monitoring, PBX operation, T1 switching hardware, and call routing.

TCT 2120
Fiber Optics Transmission Theory
3:3:0 On Sufficient Demand
• Prerequisite: TCT 1210
• Corequisite: TCT 212L
Introduces fiber optic transmission systems. Includes transmission line principles, fiber optic materials, cabling specification and practice, and amplification of optical signals. Teaches synchronous optical networks, optical carrier multiplex standards, SONET, and wavelength division multiplexing.

TCT 212L
Fiber Optics Transmission Laboratory
1:0:3 On Sufficient Demand
• Corequisite: TCT 2120
Studies methods and practice of fiber optic cabling systems. Presents the construction and testing of fiber optic cables, optical switching systems, and optical carrier systems.

TCT 2210
Wireless RF Communications Theory
4:4:0 On Sufficient Demand
• Prerequisite: TCT 1210, CNS 2600
• Corequisite: TCT 221L
Presents wireless communication theory and practice. Includes electromagnetic radiation, transmission lines, forward and reflected power, transmitter fundamentals, modulation, noise and receiver fundamentals. Covers broadcast systems, point-to-point microwave systems, digital transmission fundamentals, radio repeaters, duplex wireless communications, and cellular telephone systems.

TCT 221L
Wireless RF Communications Laboratory
4:0:12 On Sufficient Demand
• Corequisite: TCT 2210
Presents testing, measuring, and monitoring of wireless communication systems using various test equipment. Uses test instruments to make various RF measurements including power, voltage, frequency, distortion, signal to noise ratio, sensitivity and dynamic range.

TCT 2220
Audio and Video Protocols and Systems
3:3:0 On Sufficient Demand
Studies the fundamentals of audio and video systems. Includes fundamentals of broadband communications systems, cable television, cable Internet modems, DSS satellite systems, video systems, video compression fundamentals, audio systems and audio compression.

TCT 2230
Telecommunications Physical Plant Systems
3:3:0 On Sufficient Demand
• Prerequisite: TCT 1210
Studies the principles of physical plant planning and implementation. Includes layout practice, technical access, cabling support systems, cable distribution and layout, cable designation and labeling. Teaches AC power distribution systems, DC power systems, grounding practice, air conditioning, fire control, facility monitoring and remote control. Includes security and intrusion alarm systems, and FCC regulations and specification.

ENGINEERING GRAPHICS AND DESIGN TECHNOLOGY

Department Chair: David Manning

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Program Coordinator: Robert Price
Office: CS 704d
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Faculty:

Associate Professor
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Advisory Committees:

Mechanical Drafting: Mike Thompson, Flowserve; Dan Olsen, Jason Associates Corporation.
Structural Drafting: Terry Beighley, Intermountain Bridge Detailers; David McGowan, Action Steel Detailing, Inc. **Architectural Drafting**: Kevin Madson, KMA & Associates; Paul Magleby, Paul Magleby Construction Inc.
Electrical Drafting: Keith Hegerhorst, Hegerhorst Power Engineering.
Civil Drafting: Alan York, Provo City; Clyde Naylor, Utah County; Carl L. Cook, RB & G Engineering.

School of Computing, Engineering and Technology

Dean: Thomas McFarland
Office: CS 720b
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CAREER OPPORTUNITIES

The Engineering Graphics and Design Technology program principally prepares students for drafting (mechanical, architectural, structural, civil, and electrical-electronic) and surveying careers. Drafting jobs are available with architects, cities, counties, states, the federal government, engineering and surveying companies, mines, research and development companies, and the mechanical, structural steel, architectural development, electrical and electronics, construction, and fire protection industries. In addition, because of the broad nature of the Engineering Graphics and Design Technology program, graduates are prepared to succeed in most technological fields. For example, they can work as manufacturing, industrial engineering, and construction technicians. They can also work in functional areas of purchasing, estimating, bidding, plant management, quality control, expediting, and sales.

JOB DESCRIPTION – ENGINEERING GRAPHICS AND DESIGN TECHNOLOGY

Engineering Graphics Technicians (formerly Drafters/Designers) translate ideas from design layouts, specifications, rough sketches, and calculations of engineers & architects into working drawings, maps, plans, and illustrations which are used in making products. They prepare drawings using Computer Aided Drafting, Design, and 3D modeling systems. They work in mechanical, electrical electronic, structural, architectural, civil, piping, and technical illustration fields. They make mathematical calculations related to the above fields using algebra, trigonometry, plane and solid geometry, applied mechanics, strength of materials and basic physics.

The Engineering Graphics Technician's job requires working closely with both professional and nonprofessional people. They also do liaison work between the shop or field and the engineering office. It is essential they be neat in appearance and develop professional work habits.

JOB DESCRIPTION – LAND SURVEYING

Surveying Technicians work out-of-doors doing surveys of property, roads, pipelines, subdivisions, and all types of construction projects. They may work in specialized fields such as topographic mapping, mine surveying, and hydrographic surveying. They use levels, total stations, and global positioning system equipment. They make mathematical calculations using algebra, trigonometry, and plane and solid geometry. They may also be called upon to produce drawings related to their work.

Surveyors also work closely with the public so it is imperative that they develop good human relations skills and professional work habits.

PROGRAMS

Students in the Engineering Graphs and Design Technology program may earn an Associate in Applied Science Degree, an Associate in Science Degree with a drafting premajor or a Bachelor of Science in Technology Management Degree in Drafting Technology.

Reminder: an overall grade point average of 2.0 (C) or above is required for graduation.

AAS IN DRAFTING TECHNOLOGY — 65 CREDITS

General Education Requirements:			16 Credits
ENGLISH			2
• ENGL	1010	Introduction to Writing	
• ENGL	1060	Career Writing for Technology	
• ENGL	106A	Career Writing for Technology—A	
• MGMT	2200	Written Business Communications	
MATHEMATICS			
• DT	1600	Technical Math (Algebra)	3
or MATH	1050	College Algebra	
and DT	1610	Technical Math (Geometry & Trig.)	3
or MATH	1060	Trigonometry (instructor approval)	
HUMANITIES/FINE ARTS/FOREIGN LANGUAGE			3
• PHIL	2050	Ethics and Values (highly recommended)	
• Any approved Humanities, Fine Arts, or Foreign Language Distribution Course			
SOCIAL AND BEHAVIORAL SCIENCE			2
• MGMT	3000	Organizational Behavior	
• Any approved Behavioral Science, Social, or Political Science Distribution Course			
BIOLOGY OR PHYSICAL SCIENCE			
• PHYS	1810	Principles of Technology I	2
PHYSICAL EDUCATION/HEALTH/SAFETY OR ENVIRONMENT			1
• Any approved Physical Education, Health, Safety or Environment Course			
Discipline Core Requirements:			41 Credits
• DT	1010	Electrical-Electronic Drafting	2
• DT	1040	Computer Aided Drafting—AutoCAD	3
• DT	1070	3 Dimensional Computer Modeling	2
• DT	1080	AutoLisp	2
• DT	1100	Architectural Drafting	3
• DT	1200	Mechanical Drafting	3
• DT	1300	Structural Drafting	3
• DT	1400	Surveying	4
• DT	2020	Descriptive Geometry	3
• DT	2040	Piping Drafting	2
• DT	2050	Plate Layout	2
• DT	2060	Technical Illustration	2
• DT	2600	Statics	3
• DT	2610	Strength of Materials	3
• DT	2850	Cooperative Correlated Instruction/Orientation	0.5
• DT	2860	Cooperative Correlated Instruction/VICA	0.5
• DT	2870	Cooperative Correlated Instruction/Interview Preparation and Job Interview	1
ISYS	1340	Beginning Computer Applications	2
Elective Requirements:			8 Credits
Choose three courses from the following list for a minimum of 8 credits:			8
• DT	1060	MicroStation	
• DT	2010	Advanced Electrical (CAD)	
• DT	2100	Advanced Architectural (CAD)	
• DT	2200	Advanced Mechanical (CAD)	
• DT	2300	Advanced Structural (CAD)	
• DT	2310	Computer Aided Drafting—Xsteel	
• DT	2400	Surveying Applications	
• DT	2710	Special Problems: Mechanical	
• DT	2720	Special Problems: Surveying	
• DT	2730	Special Problems: Civil Drafting	
• DT	2740	Special Problems: Architectural	
• DT	2750	Special Problems: Architectural Rendering	
• DT	2760	Special Problems: Structural	
• DT	2780	Special Problems: Electrical	
• DT	2790	Special Problems: Advanced Architectural Rendering	
• DT	281R	Cooperative Work Experience	

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 UVSC.
4. Completion of GE and specified departmental requirements, including a portfolio and exit interview.

AS PRE MAJOR IN DRAFTING TECHNOLOGY — 63 CREDITS

General Education Requirements:	35 Credits
• Complete General Education requirements as detailed in the General Education section of this catalog.	
Discipline Core Requirements:	16 Credits
• DT or related courses (1000 level or higher)	16
Elective Requirements:	12 Credits
• Electives (1000 level or higher)	12
Graduation Requirements:	

AS PRE MAJOR IN DRAFTING TECHNOLOGY (CON'T) 63 CREDITS

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 UVSC.
4. Completion of GE and specified departmental requirements.

BS IN TECHNOLOGY MANAGEMENT 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

DRAFTING TECHNOLOGY

Specialty Core Requirements:			45 Credits
Complete the following:			
DT	1010	Electrical-Electronic Drafting	2
DT	1040	Computer Aided Drafting-AutoCAD	3
DT	1070	3 Dimensional Computer Modeling	2
DT	1080	AutoLisp	2
DT	1100	Architectural Drafting	3
DT	1200	Mechanical Drafting	3
DT	1300	Structural Drafting	3
DT	1400	Surveying	4
DT	2020	Descriptive Geometry	3
DT	2040	Piping Drafting	2
DT	2050	Plate Layout	2
DT	2060	Technical Illustration	2
DT	2600	Statics	3
DT	2610	Strength of Materials	3
Complete 8 credits from the folowing:			8
DT	1060	MicroStation	
DT	2010	Advanced Electrical (CAD)	
DT	2100	Advanced Architectural (CAD)	
DT	2200	Advanced Mechanical (CAD)	
DT	2300	Advanced Structural (CAD)	
DT	2310	Computer Aided Drafting - Xsteel	
DT	2400	Surveying Applications	

NOTES:
No upper division Technology Management (ie Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

Due to the technical nature of the material in the following courses, additional reading and math instruction may be required. More information will be given during advisement.

COOPERATIVE EDUCATION

Cooperative Education is highly recommended as an elective in these majors. Two credits may be applied towards graduation.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

DT 1000
Basic Drafting
2:2:0 Su, F, Sp

A beginning course for Drafting Technology students; students in the School of Computing, Engineering and Technology programs who need a related drafting class; and general education students wanting to explore a drafting class. Covers basic sketching, instruments and their use, lettering, geometric construction, dimensioning, multi-view drawings, and section views. Completers should be qualified to take any of the first-year drafting technology courses.

DT 1010
Electrical-Electronic Drafting
2:2:0 F, Sp

- Prerequisite: DT 1000 or equivalent, with"C-" grade or better
- Corequisite: DT 1600 or equivalent and DT 1040

For students who wish to broaden their basic drafting skills in the area of electrical-electronic drafting. Introduces electrical symbols, diagrams, and procedural standards. Includes basic DC electrical theory using lectures, worksheets, and drawing assignments. Prepares students for advancement to DT 2010 and for entry-level employment in electrical related fields.

DT 1040
Computer Aided Drafting—AutoCAD
3:3:0 Su, F, Sp

- Prerequisite: DT 1000 recommended

Teaches the drafting AutoCAD software system. Includes enough exposure to Windows to create files, read directories, create directories and operate the AutoCAD software as it applies to Windows and Graphics. Uses CAD system to produce, plot, print, check, and correct drawings.

DT 1060
MicroStation
2:2:0 F, Sp

Teaches the drafting MicroStation software system in Windows. Drawings are produced, plotted, printed, checked, and corrected on the CAD system.

DT 1070
3 Dimensional Computer Modeling
2:2:0 F, Sp

- Prerequisite: DT 1000 and DT 1040

For architecture, engineering, drafting, and industrial design students. An advanced computer modeling course which emphasizes the development of a 3D object during the design process. Provides skill development in the use of 3D graphical techniques to produce wire frame, extrusion, and surface design models. Also teaches analysis of a 3D solid in real space and uses the computers analytical ability to calculate the mass properties of an object. Includes hands-on computer simulation techniques. Applies engineering theory to actual problems utilizing the computer as an analysis design tool. Requires basic knowledge of design software.

DT 1080
AutoLisp
2:2:0 F, Sp

- Prerequisite: DT 1040

Covers creating and storing AutoLisp files and programs. Includes customizing the AutoCAD menu for personal and drafting use. Teaches creating new macros for speeding up repetitive drawing tasks.

DT 1090
Introduction to Architecture Drafting
3:3:0

For non-Drafting Technology majors and others who wish to explore the field of residential architectural drafting. 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.

DT 1100
Architectural Drafting
3:3:0 Su, F, Sp

- Prerequisite: DT 1000 or equivalent with "C-" grade or better
- Corequisite: DT 1600 or equivalent and DT 1040

For Drafting Technology majors and other students who wish to broaden their basic drafting skills in the field of residential architectural drafting. Covers procedures used in developing a complete set of residential plans. Includes architectural drafting standards, hand lettering procedures, and code requirements. Reinforces math skills using dimensioning and estimating exercises. Uses lectures and text reading assignments with related worksheets and drawings. Prepares students for advancement into DT 2100 and for entry-level employment in related fields.

DT 1200
Mechanical Drafting
3:3:0 Su, F, Sp

- Prerequisite: DT 1000 or equivalent with "C-" grade or better
- Corequisite: DT 1040

For Drafting Technology, Welding Technology, and intended Mechanical Engineering majors. Requires previous knowledge of linework, lettering, geometric construction, and dimensioning. Teaches engineering sketching and detail drawing from design layouts. Uses Machinery's Handbook, ANSI Standard and manufacturer's reference materials involving retaining rings, bearings, oil seals, and other hardware. Emphasizes geometric dimensioning and tolerancing. Includes precision dimensioning, surface finish, materials, screw threads, and machining processes and applications.

DT 1300
Structural Drafting
3:3:0 Su, F, Sp
- Prerequisite: DT 1000 or equivalent with "C-" grade or better
- Corequisite: DT 1040

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.

DT 1400
Surveying
4:3:3 Su, F, Sp

For people seeking a surveyor's license, civil engineering majors, Drafting 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.

DT 1600
Technical Math—Algebra
3:3:0 F, Sp
- Prerequisite: MAT 0800 or equivalent with "C-" grade or better or appropriate test scores

Covers 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.

DT 1610
Technical Math—Geometry/Trig
3:3:0 F, Sp
- Prerequisite: DT 1600 or equivalent course, with "C-" grade or better

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.

DT 2010
Advanced Electrical—CAD
2:2:0 F, Sp
- Prerequisite: DT 1010 and DT 1040, with "C-" grade or better

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.

DT 2020
Descriptive Geometry
3:3:0 F, Sp
- Prerequisite: DT 1000 or equivalent and DT 1040, with "C-" grade or better

A required course for Drafting Technology majors, but any student desiring elective or transfer credit may also enroll. Covers systematic procedures that enable students to draw not only principal views of an object, but also a view as it would appear from any conceivable direction. Graphical solutions are made concerning true length, true angles, true size and shape, directions, intersections, shortest distance, and true angle. Students graphically complete practical story problems using very accurate scales and drafting instruments or Computer Aided Drafting (CAD).

DT 2040
Piping Drafting
2:2:0 F, Sp
- Prerequisite: DT 1040 with "C-" grade or better

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.

DT 2050
Plate Layout
2:2:0 F, Sp
- Prerequisite: DT 1000 and DT 2020 with "C-" grade or better

A continuation of Descriptive Geometry (DT 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.

DT 2060
Technical Illustration
2:2:0 F, Sp
- Prerequisite: DT 1000 with"C-" grade or equivalent
- Corequisite: DT 1040, DT 1070

Covers the production of pictorial drawings using oblique, isometric, dimetric, and trimetric procedures. Also covers the procedures used in producing one and two point perspective drawings. The drawing of exploded views, fasteners, and line contrast or line surface shading are also covered. Drawings are completed using CAD or pencil.

DT 2100
Advanced Architectural—CAD
3:3:0 F
- Prerequisite: DT 1100 and DT 1040, with "C-" grade or better

A computer-assisted course which covers dimensioning, filling and room identification of a previously drawn commercial floor plan. Includes layout detailing and dimensioning of the site plan, footing and foundation plan, door and window schedules; reflected ceiling plan coordinated with the HVAC; electrical lighting drawings; cross and longitude sections; roof framing; and exterior elevations. Also covers structural details including stress analysis in terms of beam and column design and footing widths. Completers should have entry-level skills to work in professional architects' offices.

DT 2200
Advanced Mechanical—CAD
3:3:0 Sp
- Prerequisite: DT 1200 and DT 2600 with "C-" grade or better, concurrent enrollment in DT 2610, and prior computer experience

Uses CAD to layout a machine design. Includes fasteners, snap rings, oil seals, horsepower, compression, shear and torsion stress concentrations. Covers design and layout of an instructor approved mechanical design project. Each part is free-hand sketched and fully dimensioned in accordance with ANSI GD&T.

DT 2300
Advanced Structural—CAD
3:3:0 Sp
- Prerequisite: DT 1300 and DT 1610 with "C-" grade or better

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, tank bottom layouts, tank shell, and tank framing drawings. Also introduces general estimating procedures. Completers should be ready for entry-level employment as a structural steel detailer for small detailing companies or large construction companies.

DT 2310
Computer Aided Drafting—Xsteel
3:3:0 Sp
- Prerequisite: DT 1040 and DT 1300 with "C-" grade or better
- Corequisite: DT 2300

Teaches Xsteel 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.

DT 2400
Surveying Applications
4:3:3 Su, F
- Prerequisite: DT 1400 and DT 1600 or MATH 1060, with "C-" grade or better

The second course of the surveying series. Covers the use of advanced surveying instruments, advanced leveling procedures, volume compu-

tations, monumentation, boundary surveys, route surveys, and subdivision design and layout. Works with the total station and current equipment. Completers should be able to work as instrument men on survey crews and also prepare the drawings related to the surveys.

DT 2600
Statics
3:3:0 F, Sp
• Prerequisite: DT 1610 with "C-" grade or better
For students preparing for the second year design classes. Covers the basic principles of statics, coplanar force systems, coplanar-concurrent force systems, and noncoplanar-concurrent force systems. Prepares students for entry-level employment as a design drafter in structural, architectural, and mechanical drafting.

DT 2610
Strength of Materials
3:3:0 F, Sp
• Prerequisite: DT 2600 with "C-" grade or better
Studies strength of materials dealing with direct stress in compression, tensile, and shear. Also covers engineering materials and their properties dealing with stress and deformation, centroids, moments of inertia, section modules, thin wall pressure vessels, tension and the calculations of beams, girders and columns under various loading conditions. Includes calculations to determine the deflection in beams and girders under various load conditions.

DT 2710
Special Problems—Mechanical
2:2:0 On sufficient demand
• Prerequisite: DT 2200 with "C-" grade or better
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.

DT 2720
Special Problems—Surveying
2:2:0 On sufficient demand
• Prerequisite: DT 2400 and DT 1610
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.

DT 2730
Special Problems—Civil Drafting
2:2:0 On sufficient demand
• Prerequisite: DT 1000 and DT 1400 with "C-" grade or better
For people seeking a surveyor's license or intended Civil Engineering and Drafting Technology 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.

DT 2740
Special Problems—Architectural
2:2:0 On sufficient demand
• Prerequisite: DT 2100 with "C-" grade or better
A special problems course in commercial drafting which allows students, with project approval, to layout and detail a commercial floor plan of their choice. CAD-based, using standard library details.

DT 2750
Special Problems—Architectural Rendering
2:2:0 F, Sp
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.

DT 2760
Special Problems—Structural
2:2:0 On sufficient demand
• Prerequisite: DT 1300 and DT 2610 with "C-" grade or better
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.

DT 2780
Special Problems—Electrical
2:2:0 On sufficient demand
• Prerequisite: DT 2010 with "C-" grade or better
For students who wish to advance beyond DT 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.

DT 2790
Special Problems—Advanced Architectural Rendering
2:2:0 On sufficient demand
• Prerequisite: DT 2750 with "C-" grade or better
For students who wish to broaden their basic ink rendering skills into the full color media. Covers techniques to construct a full color rendering with a wet media.

DT 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Prerequisite: First Year Drafting
For drafting students to receive actual on-the job work experience. Work assignments are set up with businesses and industries who are involved in drafting and design, construction or manufacturing. Two credits may apply toward graduation. Students receive pay for their work, but the real benefit is the on-the job experience.

DT 2850
Cooperative Correlated Instruction/Orientation
0.5:0.5:0 F
Designed to orient the student to opportunities offered by the school, department, community, and industry, and to assist cooperative work experience. Time is spent on the importance of working and communicating with others.

DT 2860
Cooperative Correlated Instruction/VICA
0.5:0.5:0 Sp
VICA is a first year class for Drafting Technology majors. Includes leadership training, parliamentary procedure, job interview skills, prepared speaking, extemporaneous speaking, and organizational skills. Upon completion, the student should understand the Skills USA-VICA organization and how it helps to build leadership skills.

DT 2870
Cooperative Correlated Instruction/Interview Preparation and Job Interview
1:1:0 F, Sp
Assists students in the development of job search skills. Students produce various forms of correspondence relating to the job search, including letters of introduction, follow-up letters, letters acknowledging job acceptance and rejection, and resumes. Students complete exercises in interview techniques and in pre and post interview procedures. Students complete a portfolio as a final project.

ENGLISH AND LITERATURE

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Assistant Chair: Rick McDonald
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Faculty:

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- Lawrence S. Harper
- Lee Ann Mortensen
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- Robert Cousins
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- Laura Hamblin
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- Deb Thornton
- Charles A. Vogel
- Sandy Vogel
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- Jan Wellington
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- Mark Crane
- Douglas Downs
- Steve Fullmer
- Stephen Gibson
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- Bonnie Kyburz
- Kate McPherson
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Office: LA 209d
Telephone: 801-863-7435

English courses taken at UVSC apply towards Bachelor, AA/AS and AAS degrees, minors, diplomas, and certificates. Courses should transfer to most four-year institutions of higher learning.

UVSC'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.

Students in English at UVSC may choose from the following program options: BA/BS in English with an emphasis in Creative Writing or Literary Studies, BA/BS in English Education, BA/BS in Integrated Studies with an emphasis in English, AA/AS Emphasis in English, AA/AS Technical Writing Specialization. Minors are available in English Education, Literary Studies, and Technical Writing. A certificate in Technical Writing is available for students who have a completed associate's degree or higher from a regionally accredited institution of higher learning and one year of full-time employment. Students who wish to learn more about any of these programs should contact the English/Literature Department for further information concerning course requirements.

PROGRAMS

AA/AS PRE MAJOR IN ENGLISH — 60 CREDITS

General Education Requirements: 35 Credits
- Complete General Education requirements as detailed in the General Education section of this catalog, using ENGL 2600, Critical Introduction to Literature, as the Humanities Distribution.

Discipline Core Requirements: 15 Credits

Choose three of the following: 9
- ENGL 2510 American Literature before 1865
- ENGL 2520 American Literature after 1865
- ENGL 2610 British Literature before 1800
- ENGL 2620 British Literature after 1800

Complete a minimum of any two lower-division ENGL courses or any lower-division course listed above that has not been previously completed. 6

Elective Requirements: 10 Credits
- For AS degree: Any course 1000 or higher 10

or For AA degree: One Foreign Language 10

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 UVSC.
4. Completion of GE and specified departmental requirements.
5. For the AA degree, completion of 10 credit hours of course work from one foreign language.

AA/AS PRE MAJOR IN ENGLISH: TECHNICAL WRITING SPECIALIZATION — 60 CREDITS

General Education Requirements: 35 Credits
- Complete General Education requirements as detailed in the General Education section of this catalog, using ENGL 2600, Critical Introduction to Literature, as the Humanities Distribution.

Discipline Core Requirements: 15 Credits
- ENGL 2030 Rhetoric of Persuasion 3
- ENGL 2050 Editing 3
- ENGL 2310 Technical Writing 3
- ENGL 2250 Creative Process and Imaginative Writing 3

or ENGL 225H Creative Process and Imaginative Writing (Honors)

Choose ONE from the following: 3
- AVC 1400 Graphic Computer Applications
- AVC 241R Digital Publishing Platforms
- ISYS 1100 Introduction to Computers

Elective Requirements: 10 Credits
- For AS degree: Any course 1000 or higher 10

or For AA degree: One Foreign Language 10

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 UVSC.
4. Completion of GE and specified departmental requirements.
5. For the AA degree, completion of 10 credit hours of course work from one foreign language.

BA/BS IN ENGLISH — 120 CREDITS

Matriculation Requirements:
1. Complete the following courses: ENGL 2600, Critical Introduction to Literature; ENGL 2510, American Literature before 1865, or ENGL 2520, American Literature after 1865; and ENGL 2610, British Literature before 1800, or ENGL 2620, British Literature after 1800.

General Education Requirements: 35 Credits
- ENGL 1010 Introduction to Writing 3
- ENGL 2010 Intermediate Writing—Humanities/Social Science 3

or ENGL 2020 Intermediate Writing—Science and Technology

Complete ONE from the following: 3
- MATH 1030 Quantitative Reasoning (recommended for Humanities or Arts majors)
- MATH 1040 Introduction to Statistics (recommended for Social Science majors)
- MATH 1050 College Algebra (recommended for Business, Education, Science, and Health Professions majors)

Complete ONE from the following: 3
- HIST 1700 American Civilization
- HIST 2700 US History to 1877

and HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness

or PES 1097 Fitness for Life 2

Distribution Courses:
- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution (Fulfilled with Foreign Language 2020 course) 3
- Fine Arts Distribution 3
- Social/Behavioral Science 3

Discipline Core Requirements: 22 Credits
- ENGL 2510 American Literature before 1865

or ENGL 2520 American Literature after 1865 3
- ENGL 2610 British Literature before 1800

or ENGL 2620 British Literature after 1800 3
- ENGL 2790 Introduction to the English Major 1
- ENGL 2600 Critical Introduction to Literature 3
- ENGL 3890 Contemporary Critical Approaches to Literature 3
- ENGL 4800 Senior Seminar 3
- ENGL 4890 Advanced Writing for English Majors 3

Language Core - Complete ONE from the following: 3
- ENGL 3010 Rhetorical Theory
- ENGL 3020 Modern English Grammars

BA/BS IN ENGLISH (CON'T) 120 CREDITS

- ENGL 3040 History of the English Language

Speciality Core Requirements: 21 Credits

Complete ONE of the following

- Emphasis in Creative Writing 21

or Emphasis in Literary Studies 21

Elective Requirements: 42 Credits

- Any upper-division course 7
- For BS degree: Any course 1000 or higher 35
- For BA degree: One Foreign Language 18

and Any course 1000 or higher 17

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 UVSC, with at least 10 hours of residency earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. For the BA degree, completion of 18 credit hours of course work from one foreign language to include the 1010, 1020, 2010, and 2020 levels or transferred equivalents.
6. Complete a total of 40 credit hours from 3000 level or higher.

Emphasis in Creative Writing

Specialty Core Requirements: 21 Credits

- ENGL 3420 Intermediate Fiction Writing 3
- ENGL 3440 Intermediate Poetry Writing 3
- ENGL 412R Studies in Literary Genres 3

Complete TWO from the following: 6

- ENGL 4420 Advanced Fiction Writing
- ENGL 4430 Play Writing for Creative Writers
- ENGL 4440 Advanced Poetry Writing
- ENGL 4450 Creative Nonfiction Writing

Complete a minimum of any TWO upper-division ENGL courses or any upper-division course listed above that has not been previously completed. 6

Emphasis in Literary Studies

Specialty Core Requirements: 21 Credits

American Literature (complete TWO from the following): 6

- ENGL 3510 Early American Literature
- ENGL 3520 Literature of the American Renaissance
- ENGL 3530 Modern American Literature
- ENGL 3540 Contemporary American Literature

British Literature (complete TWO from the following): 6

- ENGL 3610 British Literature: Beginnings to 1500
- ENGL 3620 British Literature: 1500-1603
- ENGL 3630 British Literature: 1603-1700
- ENGL 3640 British Literature: 1700-1800
- ENGL 3650 British Literature: 1800-1900
- ENGL 3660 British Literature: 1900-Present

Complete a minimum of any THREE upper-division ENGL courses or any upper-division course listed above that has not been previously completed 9

BA/BS IN ENGLISH EDUCATION 120 CREDITS

Matriculation Requirements:

1. Completion of AA/AS Degree.
2. Complete the following courses: ENGL 2600, Critical Introduction to Literature; ENGL 2510, American Literature before 1865, or ENGL 2520, American Literature after 1865; and ENGL 2610, British Literature before 1800, or ENGL 2620, British Literature after 1800.

General Education Requirements: 36 Credits

- ENGL 1010 Introduction to Writing 3
- ENGL 2010 Intermediate Writing—Humanities/Social Science 3

or ENGL 2020 Intermediate Writing—Science and Technology

MATH 1050 College Algebra 4

Complete ONE of the following: 3

- HIST 1700 American Civilization
- HIST 2700 US History to 1877

and HIST 2710 US History since 1877

- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:

- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness

or PES 1097 Fitness for Life 2

BA/BS IN ENGLISH EDUCATION (CON'T) 120 CREDITS

Distribution Courses:

- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution (Fulfilled with Foreign Language 2020 course)* 3
- Fine Arts Distribution 3
- Social/Behavioral Science 3

Discipline Core Requirements: 69 Credits

Complete the following:

- ENGL 2600 Critical Introduction to Literature 3
- ENGL 2510 American Literature before 1865

or ENGL 2520 American Literature after 1865 3

- ENGL 2610 British Literature before 1800

or ENGL 2620 British Literature after 1800 3

- ENGL 3890 Contemporary Critical Approaches to Literature 3
- ENGL 4210 Methods in Teaching Literacy I 3
- ENGL 4220 Methods in Teaching Literacy II 3

Language Core (complete ONE from the following) 3

- ENGL 3010 Rhetorical Theory
- ENGL 3020 Modern English Grammars
- ENGL 3040 History of the English Language

American Literature (complete TWO from the following) 6

- ENGL 3510 Early American Literature
- ENGL 3520 Literature of the American Renaissance
- ENGL 3530 Modern American Literature
- ENGL 3540 Contemporary American Literature

British Literature (complete TWO from the following) 6

- ENGL 3610 British Literature: Beginnings to 1500
- ENGL 3620 British Literature—1500-1603
- ENGL 3630 British Literature—1603-1700
- ENGL 3640 British Literature—1700-1800
- ENGL 3650 British Literature—1800-1900
- ENGL 3660 British Literature—1900-Present

Complete THREE from the following: 9

- ENGL 3420 Intermediate Fiction Writing
- ENGL 3440 Intermediate Poetry Writing
- ENGL 3710 Literature by Women
- ENGL 373R Literature of Cultures and Places
- ENGL 3740 Literature of the Sacred
- ENGL 3760 World Literature
- ENGL 3780 Mormon Literature
- ENGL 3820 History of Literary Criticism
- ENGL 4010 Studies in Language
- ENGL 412R Studies in Literary Genres
- ENGL 4250 Adolescent Literature (recommended)
- ENGL 4420 Advanced Fiction Writing
- ENGL 4440 Advanced Poetry Writing
- ENGL 4450 Creative Nonfiction Writing
- ENGL 4570 Studies in the American Novel
- ENGL 4620 Chaucer
- ENGL 4630 Shakespeare
- ENGL 4640 Milton
- ENGL 471R Eminent Authors
- ENGL 474R Topics in Folklore
- ENGL 4760 Multi-ethnic Literature in America
- ENGL 4830 American Studies Theory and Methodology
- ENGL 486R Topics in Literature
- ENGL 4890 Advanced Writing for English Majors

Secondary Education Licensure (ENGL 4210 is substituted for EDSC 4440):

- EDSC 2540 Development of the Adolescent Student 2
- EDSC 3000 Educational Psychology 3
- EDSC 3050 Foundations of American Education 2
- EDSC 3250 Instructional Media 2
- EDSP 3400 Exceptional Students 2
- EDSC 4200 Classroom Management I 1
- EDSC 4250 Classroom Management II 1
- EDSC 4450 Multicultural Instruction/ESL 2
- EDSC 4550 Secondary Curriculum, Instruction and Assessment 4
- EDSC 4850 Student Teaching, Secondary 4

Elective Requirements: 15 Credits

- One Foreign Language (Foreign Language 2020 course fulfills Humanities Distribution) 15
- For BA degree: One Foreign Language (Foreign Language 2020* course fulills Humanities Distribution) (See Graduation Requirements) 15-18

Graduation Requirements:

1. Completion of a minimum of 120 or more semester credits.

BA/BS IN ENGLISH EDUCATION (CON'T) 120 CREDITS

2. Overall grade point average of 2.0 (C) or above, with no grade lower than a B- in licensure and methods courses. (Departments may require a higher GPA).
3. Residency hours—minimum of 30 credit hours through course attendance at UVSC, with at least 10 hours of residency earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. For the BA degree, completion of 18 credit hours of course work from one foreign language to include the 1010, 1020, 2010, and 2020* levels or transferred equivalents.

BA/BS IN INTEGRATED STUDIES 123 CREDITS

The following Integrated Studies emphasis is available (see the Integrated Studies section of this catalog for complete degree requirement listings):

- English

MINORS

MINOR IN ENGLISH LITERARY STUDIES 18 CREDITS

Matriculation Requirements:

1. Complete the following courses: ENGL 2600, Critical Introduction to Literature; ENGL 2510, American Literature before 1865 or ENGL 2520, American Literature after 1865; and ENGL 2610, British Literature before 1800 or ENGL 2620, British Literature after 1800.

Discipline Core Requirements: 18 Credits

Complete the following:

- ENGL 3890 Contemporary Critical Approaches to Literature 3
- ENGL 4890 Advanced College Writing for English Majors 3

Complete ONE from the following: 3

- ENGL 3510 Early American Literature
- ENGL 3520 Literature of the American Renaissance
- ENGL 3530 Modern American Literature
- ENGL 3540 Contemporary American Literature

Complete ONE from the following: 3

- ENGL 3610 British Literature: Beginnings to 1500
- ENGL 3620 British Literature: 1500-1603
- ENGL 3630 British Literature: 1603-1700
- ENGL 3640 British Literature: 1700-1800
- ENGL 3650 British Literature: 1800-1900
- ENGL 3660 British Literature: 1900-Present

Complete ONE from the following: 3

- ENGL 3010 Rhetorical Theory
- ENGL 3020 Modern English Grammars
- ENGL 3040 History of the English Language
- ENGL 4010 Studies in Language

Complete ONE from the following: 3

- ENGL 3420 Intermediate Fiction Writing
- ENGL 3440 Intermediate Poetry Writing
- ENGL 3710 Literature by Women
- ENGL 373R Literature of Cultures and Places
- ENGL 3740 Literature of the Sacred
- ENGL 3760 World Literature
- ENGL 3780 Mormon Literature
- ENGL 3820 History of Literary Criticism
- ENGL 4010 Studies in Language
- ENGL 412R Studies in Literary Genres
- ENGL 4420 Advanced Fiction Writing
- ENGL 4440 Advanced Poetry Writing
- ENGL 4450 Creative Nonfiction Writing
- ENGL 4570 Studies in the American Novel
- ENGL 4620 Chaucer
- ENGL 4630 Shakespeare
- ENGL 4640 Milton
- ENGL 471R Eminent Authors
- ENGL 474R Topics in Folklore
- ENGL 4760 Multi-ethnic Literature in America
- ENGL 4830 American Studies Theory and Methodology
- ENGL 486R Topics in Literature
- ENGL 490R Directed Readings

Graduation Requirements:

1. Complete all courses with no grade lower than a C-.

MINOR IN ENGLISH EDUCATION 18 CREDITS

Matriculation Requirements:

MINOR IN ENGLISH EDUCATION (CON'T) 18 CREDITS

1 Complete the following courses: ENGL 2600, Critical Introduction to Literature; ENGL 2510, American Literature before 1865 or ENGL 2520, American Literature after 1865; and ENGL 2610, British Literature before 1800 or ENGL 2620, British Literature after 1800.
2 Must be accepted into a Secondary Education major program.

Discipline Core Requirements: 18 Credits
- ENGL 2510 American Literature before 1865
- or ENGL 2520 American Literature after 1865
- ENGL 2610 British Literature before 1800
- or ENGL 2620 British Literature after 1800
- ENGL 2600 Critical Introduction to Literature

Complete the following:
- ENGL 3890 Contemporary Critical Approaches to Literature 3
- ENGL 4210 Methods in Teaching Literacy I 3
- ENGL 4220 Methods in Teaching Literacy II 3

Complete ONE from the following: 3
- ENGL 3010 Rhetorical Theory
- ENGL 3020 Modern English Grammars
- ENGL 3040 History of the English Language

Complete ONE from the following: 3
- ENGL 3510 Early American Literature
- ENGL 3520 Literature of the American Renaissance
- ENGL 3530 Modern American Literature
- ENGL 3540 Contemporary American Literature

Complete ONE from the following: 3
- ENGL 3610 British Literature—Beginnings to 1500
- ENGL 3620 British Literature—1500-1603
- ENGL 3630 British Literature—1603-1700
- ENGL 3640 British Literature—1700-1800
- ENGL 3650 British Literature—1800-1900
- ENGL 3660 British Literature—1900-Present

Graduation Requirements:
1 Complete all courses with no grade lower than a C- and no grade lower than a B- in methods courses.

MINOR IN TECHNICAL WRITING 20 CREDITS

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 UVSC.

Discipline Core Requirements: 20 Credits

Complete the following:
- ENGL 2600 Critical Introduction to Literature* 3
- or ENGL 3010 Rhetorical Theory*
- or ENGL 4010 Studies in Language*
- ENGL 4310 Advanced Technical Writing* 3

Complete FOUR from the following: 12
- ENGL 3050 Advanced Editing and Desktop Publishing
- ENGL 3310 Technology and the Writer
- ENGL 3320 Grant and Proposal Writing
- ENGL 3340 Electronic Document Design and Production
- ENGL 4320 Document Management
- ENGL 436R Topics in Technical Writing

Capstone Course: complete ONE from the following: 2
- ENGL 4350 Senior Project
- ENGL 481R Cooperative Work Experience
- ENGL 482R Internship

NOTE:
*Must be completed with a grade of C- or higher.

TECHNICAL WRITING CERTIFICATION 16 CREDITS

Matriculation Requirements:
1 AA/AS degree or higher from a regionally accredited institution of higher learning and one year of full-time employment.

Discipline Core Requirements: 13 Credits

Complete the following:
- ENGL 2050 Editing 3
- ENGL 2310 Technical Writing 3
- ENGL 3340 Electronic Document Design and Production 4
- ENGL 4310 Advanced Technical Writing 3

Elective Requirements: 3 Credits

Complete ONE from the following: 3
- ENGL 3310 Technology and the Writer
- ENGL 3320 Grant and Proposal Writing
- ENGL 4320 Document Management
- ENGL 436R Topics in Technical Writing

English majors must meet with the departmental advisor and a faculty advisor at least once each year. Call 863-8577 to make an appointment with an advisor.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

ENGL 1010 CC
Introduction to Writing
3:3:0 Su, F, Sp
- Prerequisite: COMPASS Writing/DRP scores of 80+/77+, or ACT English/ACT Reading scores of 19 +/19+, or completion of ENGH 0990 and CTRS 1170 each with a grade of "C-" or higher, or appropriate placement scores, or challenge by essay assessment for a $20 fee.

Emphasizes, in writing intensive workshops, rhetorical knowledge and skills. Teaches critical reading, writing, and thinking skills. Explores writing situations as complex and recursive processes. Enhances basic literacy, addressing both rhetorical problems and conventions of language use (within the context of Standard Written English). Three major essays with graded revision(s), microthemes, in-class writing and collaboration, portfolios, and journals.

ENGL 101H CC
Introduction to Writing
3:3:0 F, Sp
- Prerequisite: COMPASS Writing/DRP scores of 80+/77+, or ACT English/ACT Reading scores of 19 +/19+, or completion of ENGH 0990 and CTRS 1170 each with a grade of "C-" or higher, or appropriate placement scores, or challenge by essay assessment for a $20 fee.

Emphasizes, in writing intensive workshops, rhetorical knowledge and skills. Teaches critical reading, writing, and thinking skills. Explores writing situations as complex and recursive processes. Enhances basic literacies, addressing both rhetorical problems and conventions of language use (within the context of Standard Written English). Three major essays with graded revision(s), microthemes, in-class writing and collaboration, portfolios, and journals.

ENGL 1060 GC
Career Writing for Technology
3:3:0 F, Sp
Presents basic writing techniques. Includes letter writing, memos, resumes, process writing, description writing, library research skills, and writing policy documents. Satisfies the composition requirement for the Certificate, Diploma, and the AAS Degree.

ENGL 106A GC
Career Writing for Technology—A
2:2:0 F, Sp
Presents basic writing techniques. Includes letter writing, memos, resumes, process writing, and description writing. Ten weeks in length. Satisfies the composition requirement for the Certificate, Diploma, and the AAS Degree.

ENGL 2010** CC
Intermediate Writing—Humanities/Social Sciences†
3:3:0 Su, F, Sp
- Prerequisite: ENGL 1010 with a grade of "C-" or better

Explores interfaces between the personal and the public and invokes problems for exploration. Emphasizes the production of well-reasoned and carefully researched written arguments that embody the spirit of inquiry, explore and interrogate multiple perspectives, and negotiate meanings across a diverse array of positions. Three major research projects (with at least one mandatory, graded revision), annotated bibliography, oral presentations, portfolios, journals, in-class writing and collaboration.

ENGL 201H CC
Intermediate Writing—Humanities/Social Sciences
3:3:0 F, Sp
- Prerequisite: ENGL 101H or ENGL 1010 with a "C-" or better

Explores interfaces between the personal and the public and invokes problems for exploration. Emphasizes the production of well-reasoned and carefully researched written arguments that embody the spirit of inquiry, explore and interrogate multiple perspectives, and negotiate meanings across a diverse array of positions. Three major research projects (with at least one mandatory, graded revision), annotated bibliography, oral presentations, portfolios, journals, in-class writing and collaboration.

ENGL 2020** CC
Intermediate Writing—Science and Technology
3:3:0 Su, F, Sp
- Prerequisite: ENGL 1010

Explores public issues involving science and technology. Invokes problems for exploration. Emphasizes the production of well-reasoned and carefully researched written arguments that inquire, interrogate, and negotiate meanings across a diverse array of positions and in a variety of contexts, including writing about science and technology issues, and technical and/or professional documents. Includes at least one major research project (possibly more), annotated bibliography and/or appendices, oral presentations (individual and/or group), portfolios, in-class writing, and collaboration. May include basic requirements for professional and technical documents (memos, letters, reports, and more).

ENGL 202H
Intermediate Writing—Science and Technology
3.0 : 3.0 : 0.0 **F, Sp**
• Prerequisite: ENGL 101H or ENGL 1010 with a "C-" or better
Explores public issues involving science and technology. Invokes problems for exploration. Emphasizes the production of well-reasoned and carefully researched written arguments that inquire, interrogate, and negotiate meanings across a diverse array of positions and in a variety of contexts, including writing about science and technology issues, and technical and/or professional documents. Includes at least one major research project (possibly more), annotated bibliography and/or appendices, oral presentations (individual and/or group), portfolios, in-class writing, and collaboration. May include basic requirements for professional and technical documents (memos, letters, reports, and more).

ENGL 2030 **HH**
Rhetoric of Persuasion
3:3:0 **F, Sp**
• Prerequisite: ENGL 2010, or ENGL 2020, or instructor/ advisor approval
For students from all disciplines interested in the power and control of written and oral language. Teaches principles of language use from ancient Greece to current trends, from politics to advertising. Studies critique, persuasion and its roles, the ethical responsibilities of persuasive language, and the role of language as a tool for success. Includes active class discussions, student-led activities, oral presentations, and final projects in fields of students' choice. Completers should have improved confidence in and control over written and oral language and all that language can accomplish.

ENGL 2050
Editing
3:3:0 **F**
• Prerequisite: ENGL 1010
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 2130 **HH**
Science Fiction
3:3:0 **F**
• Prerequisite: ENGL 1010
• Corequisite: ENGL 1010
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 2200 **HH**
Introduction to Literature†
3:3:0 **Su, F, Sp**
• Prerequisite: ENGL 1010
• Corequisite: ENGL 1010
Introduces literary appreciation. Teaches criticism and terminology as applied to various types of literature, including fiction, poetry, and drama. Uses discussion, lecture, films, videos, and tests.

ENGL 2210 **HH**
Introduction to Folklore
3:3:0 **F, Sp**
• Prerequisite: ENGL 1010
• Corequisite: ENGL 1010
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.

ENGL 2230 **HH**
Myths and Legends in Literature
3:3:0 **F, Sp**
• Prerequisite: ENGL 1010
• Corequisite: ENGL 1010
Introduces students to myths and legends that are the foundation of literature. Uses discussion, storytelling, videos, journals, and portfolios.

ENGL 2250** **HH**
Creative Process and Imaginative Writing
3:3:0 **Su, F, Sp**
Introduces students to the basic literary elements of writing short fiction, drama, personal essay, poetry, or combinations of these. Uses readings, workshops, guest speakers, and student written work to enhance the techniques and aesthetics of creative writing. Note: This course does not replace any of UVSC's Writing Program/Composition courses for the AA/ AS degree.

ENGL 225H **HH**
Creative Process and Imaginative Writing
3:3:0 **F, Sp**
Introduces students to the basic literary elements of writing short fiction, drama, personal essay, poetry, or combinations of these. Uses readings, workshops, guest speakers, and student written work to enhance the techniques and aesthetics of creative writing. Note: This course does not replace any of UVSC's Writing Program/Composition courses for the AA/ AS degree.

ENGL 2300** **HH**
Shakespeare
3:3:0 **Su, F, Sp**
• Prerequisite: ENGL 1010
• Corequisite: ENGL 1010
For General Education students and English majors. 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.

ENGL 230H **HH**
Shakespeare
3:3:0 **Sp**
• Prerequisite: ENGL 1010
For General Education students and English majors. 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.

ENGL 2310 **HH**
Technical Writing
3:3:0 **F, Sp**
• Prerequisite: ENGL 1010
For any student wishing to improve written communication skills. Teaches basic technical writing skills used in a variety of professional settings. Emphasizes audience analysis, page layout and document design and writing for the audience. Students will produce a variety of documents including technical reports, instructions, proposals, presentations, and other work-related documents.

ENGL 2510 **HH**
American Literature before 1865
3:3:0 **Su, F, Sp**
• Prerequisite: ENGL 1010
• Corequisite: ENGL 1010
Surveys American essays, letters, biographies, fiction, and poetry up to 1865. Studies literature as a reaction to American and world events and to the general condition of the American people through discussion, lecture, videos, and writing.

ENGL 2520 **HH**
American Literature after 1865
3:3:0 **Su, F, Sp**
• Prerequisite: ENGL 1010
• Corequisite: ENGL 1010
Surveys American essays, letters, biographies, fiction, drama, and poetry from 1865 to the present. Studies literature as a reaction to American and world events and to the general condition of the American people through discussion, lecture, videos, and writing.

ENGL 2600 **HH**
Critical Introduction to Literature
3:3:0 **Su, F, Sp**
• Prerequisite: ENGL 2010 or ENGL 2020
Studies critical theoretical and ideological approaches to literature. Includes lectures, screenings, student presentations, assigned readings, explications and written reports,

exams, and a final essay. Emphasis varies by semester to include poetry, drama, or fiction. Required for English Majors. Recommended to take early in major.

ENGL 2610 HH
British Literature before 1800
3:3:0 Su, F, Sp
• Prerequisite: ENGL 1010
• Corequisite: ENGL 1010
Presents a survey of British literature with emphasis on the most important works of the best writers from 450-1800 A.D. Introduces Old English, Middle English, Renaissance, and Neo-Classical British literature. Uses discussion, lecture, films, videos, tests, and papers.

ENGL 2620 HH
British Literature after 1800
3:3:0 Su, F, Sp
• Prerequisite: ENGL 1010
• Corequisite: ENGL 1010
Introduces British Romanticism, Victorianism, Modernism, and post-Modernism. Emphasizes important works of the best writers from approximately 1800 to the present. May include discussion, lecture, videos, films, tests, and papers.

ENGL 2730
Introduction to Gender Studies
3:3:0
• Prerequisite: ENGL 2010 or ENGL 2020
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
3:3:0
• Prerequisite: ENGL 1010
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 2790
Introduction to the English Major
1:1:0 F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
Introduces students to English emphases at UVSC. Discusses various career and educational choices applicable to an English major. Guides students regarding self-assessment and areas of interest within English studies. Features lectures, discussions, journals and guest speakers.

ENGL 281R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: Approval of Cooperative Coordinator
Designed for English 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.

ENGL 290R GH
English Scholarly Forum
1:1:0 F, Sp
For students interested in literature, language and literacy, or planning on an English major. A varying series of lectures, field trips, and service projects that connect students to the professional community. Increases awareness and appreciation of literature through reading, writing, and experiencing literary works. May be taken three times for credit.

ENGL 299R GH
Independent Study
0.5-3:0-3:0-12 Su, F, Sp
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
3:3:0 F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
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
3:3:0 F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
Explores language structures, discovering connections between grammar (linguistic structure) and language uses (discourse and/or rhetoric). Writing intensive. 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 3030
Writing and Communicating Effectively in/ across Contexts
3:3:0 F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
Engages rigorous critical reading, listening, thinking, writing, and speaking. Focuses on argumentation, summarizing, paraphrasing, quoting, critical analysis, synthesizing ideas, negotiating positions, interrogating multiple perspectives, and other skills associated with the contemplation of ideas and the generation of sound arguments in written, oral, visual, and other communicative contexts. Includes analysis of situated "real world" texts appropriate to a discipline and "mock" versions of such texts, readings, and portfolio.

ENGL 3040
History of the English Language
3:3:0 F
• Prerequisite: ENGL 2010 or ENGL 2020
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. For all English majors and others interested in the origins of our language and how it has grown and continues to change.

ENGL 3050
Advanced Editing and Desktop Publishing
3:3:0 Sp
• Prerequisite: ENGL 2010 or ENGL 2020, and ENGL 2050
Refines student editing skills. Provides students with the opportunity to take a manuscript through the editing phase to a press-ready state utilizing desk-top publishing software. Teaches industry standards for software, equipment, and typesetting using hands-on projects. Recommended for students involved with student publications, including journals and campus newspaper.

ENGL 3310
Technology and the Writer
3:3:0 Sp
• Prerequisite: ENGL 2010 or ENGL 2020, and ENGL 2310
Introduces the tools of technical writing: Adobe Illustrator, Photoshop, Framemaker, and other state-of-the-art technologies. Explores the writer's role in preparing print and electronic documentation.

ENGL 3320
Grant and Proposal Writing
3:3:0 F
• Prerequisite: ENGL 2010 or ENGL 2020
For interested upper-division students and Technical Writing emphases and minors. Introduces students to private and governmental funding sources. Demonstrates successful proposal and grant writing strategies.

ENGL 3340
Electronic Document Design and Production
4:3:2 F
• Prerequisite: ENGL 2310
• Corequisite: ENGL 3310
For advanced undergraduates. Provides on-line information design, emphasizing those ideas and methods most useful for designing electronic text. Examines how people seek information, and how people read as the theoretical framework for on-line design. Introduces methodologies for assessing readers' information needs and evaluating the effectiveness of designs.

ENGL 3420
Intermediate Fiction Writing
3:3:0 F, Sp
- Prerequisite: ENGL 2250 or instructor/advisor approval

Implements a variety of intermediate techniques for generating, writing, and revising stories for publication and public readings, along with readings in theory and fiction.

ENGL 3440
Intermediate Poetry Writing
3:3:0 F, Sp
- Prerequisite: ENGL 2250 or instructor/advisor approval

Provides practices and techniques for generating, writing, and revising original poetry. Includes poetry readings, memorizations, and submission of original poetry to literary journals. Focuses on contemporary poetry and critical theories associated with contemporary poetry.

ENGL 3510
Early American Literature
3:3:0 Su, F, Sp
- Prerequisite: ENGL 2010 or ENGL 2020, and ENGL 2510 or ENGL 2520

Examines American literature from the pre-contact era through the 1820s. Studies selected authors and themes from the Puritan, Enlightenment, and Romantic traditions. Focuses on autobiography, essay, poetry, drama, and fiction.

ENGL 3520
Literature of the American Renaissance
3:3:0 Su, F, Sp
- Prerequisite: ENGL 2010 or ENGL 2020, and ENGL 2510 or ENGL 2520

Studies American literary works during the Romantic and early Realist periods, roughly 1830-1900. Locates the contribution of both canonical and lesser-known authors within cultural and historical contexts. Requires informal and formal writing, presentations, and exams.

ENGL 3530
Modern American Literature
3:3:0 Su, F, Sp
- Prerequisite: ENGL 2010 or ENGL 2020, and ENGL 2510 or ENGL 2520

Emphasizes the literary movement of modernism and covers the dates approximately 1900 to 1960. Authors covered include but not limited to F. Scott Fitzgerald, Ernest Hemingway, William Faulkner, and Langston Hughes.

ENGL 3540
Contemporary American Literature
3:3:0 Su, F, Sp
- Prerequisite: ENGL 2010 or ENGL 2020, and ENGL 2510 or ENGL 2520

For English majors and others with an interest in contemporary American literature and culture. Studies significant authors, themes, and topics in American literature from 1965 through the present. Explores multiple genres, including fiction, drama, poetry, and film, and devotes particular attention to recent developments in literary criticism.

ENGL 3610
British Literature—Beginnings to 1500
3:3:0 Su, F, Sp
- Prerequisite: ENGL 2010 or ENGL 2020, and ENGL 2610 or ENGL 2620

Covers major authors, works, and themes from Anglo Saxon, Middle English, to the medieval period (750 to 1500 AD). Studies selected authors. May include ***Beowulf*** poet, Julian of Norwich, Langland, Margery Kempe, Malory, Marie De France, the ***Pearl*** poet, and the Wakefield Master. Includes brief discussion of Chaucer. Analyzes relevant cultural, philosophical, and historical aspects of the period. Includes lectures, discussions, oral presentations, films, tests, journal writing, and papers.

ENGL 3620
British Literature—1500-1603
3:3:0 Su, F, Sp
- Prerequisite: ENGL 2010 or ENGL 2020, and ENGL 2610 or ENGL 2620

Covers major authors, works, and themes from the early Renaissance and the Elizabethan period. Studies selected authors. May include Surrey, Wyatt, Skelton, Moore, Marlowe, Sydney, Spenser, Queen Elizabeth I, Ralegh, Mary Herbert, Shakespeare, Drayton, Campion, and Nashe. Briefly discusses Shakespeare. Analyzes relevant cultural, philosophical, and historical aspects of the period. Includes lectures, discussions, oral presentations, films, tests, journal writing, and papers.

ENGL 3630
British Literature—1603-1700
3:3:0 Su, F, Sp
- Prerequisite: ENGL 2010 or ENGL 2020, and ENGL 2610 or ENGL 2620

Covers major authors, works, and themes from the Jacobean, English Civil War, and Restoration eras. Studies selected authors. May include Shakespeare, Jonson, Lanyer, Donne, Wroth, Herbert, Herrick, Vaughn, Marvell, Cavendish, Philips, Milton, Behn, Dryden, and Congreve. Discusses relevant cultural, philosophical, and historical aspects of the period. Includes lectures, discussion, oral presentations, films, journal or response writing, and papers.

ENGL 3640
British Literature—1700-1800
3:3:0 Su, F, Sp
- Prerequisite: ENGL 2010 or ENGL 2020, and ENGL 2610 or ENGL 2620

Surveys major authors and works from the Augustan and Johnsonian eras of British literature, including literary, political, historical, religious, and social trends and ideas. Studies selected authors. May include Defoe, Swift, Pope, Johnson, Thompson, Gray, Collins, Goldsmith, Montague, Burney, and others. Includes lectures, discussion, oral presentations, papers, and tests.

ENGL 3650
British Literature—1800-1900
3:3:0 Su, F, Sp
- Prerequisite: ENGL 2010 or ENGL 2020, and ENGL 2610 or ENGL 2620

Explores British poetry, novels, and prose of the nineteenth century and contemporary interpretations. Examines historical and philosophical trends that shaped the literary periods known as Romanticism and Victorianism. Includes lecture, discussion, small group work, videos, individual and group presentations, examinations, and writing.

ENGL 3660
British Literature—1900-Present
3:3:0 Su, F, Sp
- Prerequisite: ENGL 2010 or ENGL 2020, and ENGL 2610 or ENGL 2620

Explores various critical perspectives regarding modernism and post-modernism as rendered in novels, poems, plays, essays, criticism, and philosophy. Works are examined within their historical context; authors to be examined include traditional British authors and others with significant links to the post-colonial British world. Includes discussion, lecture, videos, individual and group presentations, examinations, and writing.

ENGL 3710
Literature by Women†
3:3:0 F, Sp
- Prerequisite: ENGL 2010 or ENGL 2020

Provides a substantive framework of important critical issues regarding literature by or about women. Studies applications of feminist critical theory to fiction, poetry, personal essays, or drama written by women. Requires oral presentations or discussions by students, written reports, and exams.

ENGL 373R
Literature of Cultures and Places†
3:3:0 F, Sp
- Prerequisite: ENGL 2010 or ENGL 2020

Studies one of the literatures that has developed using the English language but that are based on nations other than England or the United States (such as Canada or India) or in cultures within the British Isles or North America that are defined by ethnic or religious culture or by geography (such as African-American, Mormon, Southern, or Irish). May survey the literature of the culture or region as a whole or focus on representative works. May be repeated twice with different designations. Uses lectures, discussion, visiting writers, videos, tests, and papers.

ENGL 3740
Literature of the Sacred
3:3:0 F
- Prerequisite: ENGL 2010 or ENGL 2020

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." Requires reading, informal and formal writing, and tests.

ENGL 3760 HH
World Literature
3:3:0 Sp
• Prerequisite: ENGL 2010 or ENGL 2020
Studies selected works of World Literature from a variety of authors, geographic regions, or time periods. Introduces cultures and ideas of world literature. Focuses on careful, critical readings on a particular region or culture, time period, or author or closely related authors.

ENGL 3780
Mormon Literature
3:3:0 F
• Prerequisite: ENGL 2010 or ENGL 2020
Surveys the foundations of Mormon literature as expressed through short fiction, novels, personal essays, drama, history and criticism. Includes readings, quizzes, presentations, papers, and exams.

ENGL 3820
History of Literary Criticism
3:3:0 F
• Prerequisite: ENGL 2010 or ENGL 2020
Explores rhetorical strategies and philosophical ideas influencing the reading and writing of literary texts from Plato and Aristotle to the present. Includes lectures, discussions, oral presentations, films, tests, journal writing, and papers.

ENGL 3890
Contemporary Critical Approaches to Literature
3:3:0 Su, F, Sp
• Prerequisite: ENGL 2600
Required for English majors. Studies various theoretical and ideological approaches to literature. Focuses on the premises behind these approaches, and explicates various cultural texts from particular critical perspectives. Includes lectures, screenings, student presentations, assigned readings, written reports, exams, and a research essay.

ENGL 4010
Studies in Language
3:3:0 Sp
• Prerequisite: ENGL 3010 or instructor/advisor approval
Focuses on three major topics in language studies per semester. Includes language in social construction, workplace functions, science, political arenas, and other more specific areas as determined by the instructor. Specific topics will be listed in the class schedule.

ENGL 412R
Studies in Literary Genres
3:3:0 F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
Examines various literary genres, with a different focus each semester. May be repeated twice with different designations.

ENGL 4210
Methods in Teaching Literacy I†
3:3:0 Su, F, Sp
• Prerequisite: ENGL 2600, and ENGL 3010 or ENGL 3020 or ENGL 3040
Presents and explores content-related issues and practices teaching strategies in the secondary education language arts classroom. Uses discussion, group work, and participation in accordance with NCATE standards.

ENGL 4220
Methods in Teaching Literacy II†
3:3:0 Su, F, Sp
• Prerequisite: ENGL 4210
Continues to explore issues and research in language arts and further develops teaching skills through reading and discussion, classroom observation, creating teaching materials, and participation in teaching demonstrations. Preparatory to student teaching for English Secondary Education students.

ENGL 4250
Adolescent Literature†
3:3:0 F
• Prerequisite: ENGL 2010 or ENGL 2020
Engages secondary education majors and other interested students in the study of literature written explicitly for adolescent readers. Explores attitudes towards adolescence as a distinctive psychological, social and moral state using contemporary and time-honored works from various cultures. Particular attention paid to contemporary adolescent issues, history of young adult literature, value instruction, and the role of young adult literature in the literacy development process.

ENGL 4310
Advanced Technical Writing
3:3:0 Su, F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
For upper-division technology management majors, technical writing emphases and minors, and as elective credit for other upper-division students. Teaches writing skills most in demand for business and industry today. Provides collaborative experience in the development of a lengthy, professional-caliber manual or handbook, using computers. Emphasizes primary and secondary research, guest lecturers, and coaching by members of the business community.

ENGL 4320
Document Management
4:3:2 Sp
• Prerequisite: ENGL 2310, ENGL 3310
For technical writing emphases and minors. Teaches managing electronic and print documents from inception to publication. Introduces the procedures and techniques of successful document management, including scheduling, budgeting, genre selection, and publication issues.

ENGL 4350
Senior Project
2:1:2 F, Sp
• Prerequisite: Departmental Approval, Senior Status
For Senior English majors and minors. Work independently with clients and instructors to produce a major print or electronic document.

ENGL 436R
Topics in Technical Writing
3:3:0 TBA
• Prerequisite: ENGL 2010 or ENGL 2020
Examines key issues and theories in technical communication. Topics vary each semester and include financial, environmental, and medical writing, science writing, and ethical issues in technical writing. May be taken twice with different topics.

ENGL 4420
Advanced Fiction Writing
3:3:0 F, Sp
• Prerequisite: ENGL 3420
Implements a variety of advanced techniques for generating, writing, and revising stories for publication and public readings, along with readings in theory and fiction.

ENGL 4430
Play Writing for Creative Writers
3:3:0
• Prerequisite: ENGL 2250 or ENGL 225H or by instructor permission
Teaches the skills and processes of successful playwriting. Presents playwriting through textual analysis and play attendance. Includes lectures, discussions, oral presentations, and a final portfolio of dramatic writing.

ENGL 4440
Advanced Poetry Writing
3:3:0 F, Sp
• Prerequisite: ENGL 3440
Provides further practices and techniques for generating, writing, and revising original poetry. Includes poetry readings, memorizations, workshopping and submission of original poetry to literary journals. Focuses on contemporary poetry and critical theories associated with contemporary poetry.

ENGL 4450
Creative Nonfiction Writing
3:3:0 F, Sp
• Prerequisite: ENGL 2250, or instructor/advisor approval
Provides experience in producing nonfiction prose. Focuses on the stylistic/aesthetic development of raw content.

ENGL 4570
Studies in the American Novel
3:3:0 F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
Surveys the "great American novel," providing historical, regional, and cultural perspectives of one of the richest genres in literary history.

ENGL 4620
Chaucer
3:3:0 Sp
• Prerequisite: ENGL 2010 or ENGL 2020
Studies selected works by Chaucer investigating selections primarily from The Canterbury Tales, with some use of Chaucer's other major and minor poetry. Considers context of cultural and historical perspectives of the Middle Ages. Includes lectures, discussions, oral presentations, films, tests, journal writing, and papers.

ENGL 4630
Shakespeare
3:3:0 F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
Analyzes Shakespeare's works, including an intensive study of his plays, sonnets, and poems, from various critical approaches. May include lectures, discussions, oral presentations, papers, tests, and films.

ENGL 4640
Milton
3:3:0 F
• Prerequisite: ENGL 2010 or ENGL 2020
Surveys John Milton's major prose and poetry, including an intensive study of *Paradise Lost*, placed in context with the important social, political, and religious trends of his time. May include lectures, discussion, oral presentations, papers, tests, and films.

ENGL 4700
Advanced College Writing
3:3:0 Su, F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
An advanced, interdisciplinary course in communication and writing. Emphasizes critical thinking, reading, writing, and multi-media presentation skills. Requires students to write and present annotated bibliographies, critical/analytical essays, oral reports, and a major research report. Successful completers should write and present information confidently and professionally.

ENGL 471R
Eminent Authors
3:3:0 F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
Introduces important works of eminent authors. Emphasizes forms of literary expression and place in the historical development of world literature. Studies relevant cultural and historical aspects of the authors' milieu. Includes lectures, discussions, oral presentations, films, tests, and papers. May be repeated twice with different topics.

ENGL 473R
Topics in Gender Studies
3:3:0
• Prerequisite: ENGL 2010 or 2020, and ENGL 2600
Focuses student reading, research, and discussion on specific areas of concentration within the field of gender studies. (Specific areas of focus will change as the instructor and his or her focus or expertise changes.) Analyzes how gender affects and is affected by culture, ideology, socio-economic factors, history, etc. Possible course focuses include: Gender and Popular Culture, Gender and the Canon, and Gender in Literary Theory, among others. May be repeated for up to 6 credits toward graduation.

ENGL 474R
Topics in Folklore
3:3:0 Sp
• Prerequisite: ENGL 2210 or instructor/advisor approval
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 4760
Multi-ethnic Literature in America
3:3:0 F
• Prerequisite: ENGL 2010 or ENGL 2020
Surveys multi-ethnic literature reflecting the rich diversity inherent in American experience. Includes but is not limited to works by Native American, Hispanic American, Asian American, African American authors.

ENGL 4800
Senior Seminar
3:3:0 F, Sp
• Prerequisite: Senior Status
Students design a portfolio to display their knowledge and abilities and develop their own professional network by meeting and visiting successfully employed English graduates.

ENGL 481R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: Departmental approval, senior status
For senior English majors and minors. Provides transition from school to work where theories are applied to actual practice through meaningful, paid work experience. Three hours will apply toward graduation.

ENGL 482R
Internship
2-9:1:5-40 Su, F, Sp
• Prerequisite: Registered full or part-time student
Explores areas such as technical writing, teaching English abroad, television and other media, communications, and public relations. Uses approved, academically challenging positions. Varies depending on organization. Spans a month, a semester, or longer.

ENGL 4830
American Studies Theory and Methodology
3:3:0 TBA
• Prerequisite: ENGL 2010 or ENGL 2020
Examines theories and methods used in American studies, demonstrating how interdisciplinary work is performed.

ENGL 486R
Topics in Literature
3:3:0 Su, F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
Studies various topics/themes in fiction, poetry, drama, essay, film, or other art forms such as ethics in literature, queer literature, literature and the environment, literature and war, literature and the civil rights movement, etc. Subject matter will vary each semester. May be repeated twice for different topics.

ENGL 4890
Advanced Writing for English Majors
3:3:0 F, Sp
• Prerequisite: ENGL 2600
Required for upper-division English majors and as elective credit for others. Assumes that English majors are well versed in their areas of focus. Centers on writing, on strategies for academic and scholarly research and writing in or about the areas of focus. Emphasizes analysis, rhetorical theories or writing, development, style, oral presentations, and primary and secondary research techniques. Completers should be able to research and write at a level appropriate to enter graduate school or other post-graduate responsibilities.

ENGL 490R
Directed Readings
1-3:0:3-9 F, Sp
• Prerequisite: Department Chair and Instructor Approval
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 nine credits.

ENGLISH – BASIC COMPOSITION

Basic Composition/English as a Second Language (ESL)

Department Chair: Forrest G. Williams

Office: LA 234e
Telephone: 801-863-8494

Faculty:
Professor
J. Kaye Jeffery
Associate Professor
Melinda Bender
Deborah R. Marrott
Forrest G. Williams
Assistant Professor
Richard Matzen

Advisor: Erika Amonett
Office: LA 221p
Telephone: 801-863-8276

School of General Academics

Dean: Bonnie G. Henrie
Office: LA 210c
Telephone: 801-863-8311
Associate Dean: K.D. Taylor
Office: LA 210e
Telephone: 801-863-8949
Assistant Dean: Lisa Lambert
Office: LA 210d
Telephone: 801-863-8741
Administrative Assistant: Frankie Jensen
Office: LA 210
Telephone: 801-863-6312

OTHER SERVICES

Writing Center:
Academic Tutoring: LA 201
Lisa Eastmond Bell, Coordinator
Telephone: 801-863-8099

Learning Assistance:
Bonnie Jean Blackburn, Learning Strategist
Office: LC 208
Telephone: 801-863-7418

The Basic Composition/ESL Department is dedicated to assisting students and community members who wish to improve their writing skills in preparation for taking college courses or for self-improvement. Both the Basic Composition and ESL programs include emphasis on accuracy and clarity in language use, critical thinking, current events, organizational skills in speech and writing, comprehending and responding to written texts, and using logic and support to present oral and/or written arguments. The Basic Composition/ESL Department strives to accomplish its mission by providing a learner-centered environment which allows students to develop self-confidence along with the skills necessary to succeed in their academic or occupational endeavors. The Department uses a variety of instructional formats including traditional classroom settings, computerized instruction, collaborative learning exercises, peer and individualized tutorials, and individualized instruction to meet student needs.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

For details on prerequisites, contact a student advisor in the School of General Academics, 863-8276.

English courses are offered to students or community members needing to improve their English language skills in preparation for taking higher level college courses or for self-improvement.

ENGH 0890
Basic Writing I
5:5:0 **Su, F, Sp**
• Prerequisite: Appropriate placement score
Requires students to create portfolios to display their essays and to model the stages of writing. Teaches students to distinguish formal from informal writing. Emphasizes writing as a reflection of their reading and speaking abilities. Fosters a community of writers by practicing literate activities in the classroom and online.

ENGH 0990
Basic Writing II†
5:5:0 **Su, F, Sp**
• Prerequisite: ENGH 0890 or Appropriate placement scores
Requires students to create portfolios that include informative, persuasive, and multiple-source essays. Helps students to understand peer review and collaborative learning processes both in the classroom and online. Prepares students for ENGL 1010 and other writing intensive courses by asking them to write for various academic audiences.

ENGLISH AS A SECOND LANGUAGE

Program Director: Kevin Eyraud

Office: LA 221f
Telephone: 801-863-7091

Faculty:

Professor
Abdou Touati
James Pettersson
Assistant Professor
Heidi Condie
Kevin Eyraud

Advisor: Erika Amonett
Office: LC 221p
Telephone: 801-863-8276

Department of Basic Composition/English as a Second Language (ESL)

Department Chair: Forrest G. Williams
Office: LA 234e
Telephone: 801-863-8494

School of General Academics

Dean: Bonnie G. Henrie
Office: LA 210c
Telephone: 801-863-8311
Associate Dean: K.D. Taylor
Office: LA 210e
Telephone: 801-863-8949
Assistant Dean: Lisa Lambert
Office: LA 210d
Telephone: 801-863-8741
Administrative Assistant: Frankie Jensen
Office: LA 210
Telephone: 801-863-6312

The English as a Second Language program has three goals:

1. To assist international and non-native English speaking students in becoming proficient in the English communication skills of listening, speaking, writing and reading.

2. To prepare international and non-native English speaking students to succeed either in college or in the job market.

3. To familiarize international and non-native English speaking students with the American culture.

All students are required to take a placement examination prior to registration for any courses. Placement/promotion testing is done at the beginning and end of each semester. All students who successfully complete the advanced level courses and meet the ESL program exit criteria are admitted into the college for regular academic studies.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

ESL 0100
Basic English Language Immersion
12:12:0 F, Sp
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 010A
Basic English Reading and Writing
5:5:0 F, Sp
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 paragraph writing on topics introduced in reading, using description, narration, and biography. Includes lecture, discussion, and outside experience with native English speakers. Completers should advance to high-beginning reading and writing level.

ESL 010B
Basic English Listening and Speaking
5:5:0 F, Sp
For beginning ESL students, with little or no previous English experience. Teaches basic survival skills in English-grammar pragmatics, accuracy, and listening, including proper pronunciation, intonation, and rhythm patterns. Includes lab, lecture, field trips, guest speakers, and outside experience with native English speakers. Completers should advance to high-beginning English level.

ESL 010C
Basic English Vocabulary
2:2:0 F, Sp
For beginning ESL students, with little or no previous English experience. Teaches a 1500-word vocabulary necessary for survival and academic needs. Explores vocabulary in context around relevant themes. Includes communicative practice and authentic language practice with native English speakers. Completers should advance to high-beginning English level.

ESL 0910
Listening/Speaking Level I
4:4:1 Su, F, Sp
• Prerequisite: Appropriate placement scores
For students whose native language is other than English. Introduces concepts of pronunciation, intonation, stress, and English phonics. Explores use of simple statements, questions, and commands on familiar topics. Introduces students to academic lectures and conversations. Includes weekly use of the UVSC Language Lab where beginning conversation skills are emphasized and practiced.

ESL 0920
Reading Level I
5:5:0 Su, F, Sp
• Prerequisite: Appropriate placement scores
For students whose native language is other than English. Studies beginning vocabulary, word attack skills, English dictionary usage, and comprehension skills. Encourages reading for pleasure and for information. Introduces students to academic and job-related reading skills.

ESL 0930
Writing Level I
4:4:1 Su, F, Sp
• Prerequisite: Appropriate placement scores
For students whose native language is other than English. Introduces English writing conventions including applied grammar and usage, word choice, style, organization, idea development, and technical accuracy. Introduces students to simple academic writing tasks. Includes weekly use of the LEC Computer Classroom where beginning writing skills are emphasized and practiced.

ESL 0940
Grammar Level I
5:5:0 Su, F, Sp
• Prerequisite: Appropriate placement scores
For students whose native language is other than English. Introduces students to English usage, correct speech and writing forms and patterns, basic verb tenses and their related structures, and simple use of nouns, pronouns, adverbs, sentence connectives, descriptives, and related forms.

ESL 1210
Listening/Speaking Level II
4:4:1 Su, F, Sp
• Prerequisite: Appropriate placement scores
For students whose native language is other than English. Studies low-intermediate concepts of pronunciation intonation, stress, and English phonics. Expands use of simple statements, questions, and commands on familiar topics as well as academic lectures, and conversations. Includes weekly use of the UVSC Language Lab where low-intermediate conversation skills are emphasized and practiced.

ESL 1220
Reading Level II
5:5:0 **Su, F, Sp**
• Prerequisite: Appropriate placement scores
For students whose native language is other than English. Studies low-intermediate vocabulary, word attack skills, English dictionary usage, and comprehension skills. Encourages reading for pleasure and for information. Practices academic and job-related reading skills.

ESL 1230
Writing Level II
4:4:1 **Su, F, Sp**
• Prerequisite: Appropriate placement scores
For students whose native language is other than English. Studies low-intermediate English writing conventions including applied grammar and usage, word choice, style, organization, idea development, and technical accuracy. Explores short academic writing tasks. Includes weekly use of the GA Computer Classroom where low-intermediate writing skills are emphasized and practiced.

ESL 1240
Grammar Level II
5:5:0 **Su, F, Sp**
• Prerequisite: Appropriate placement scores
For students whose native language is other than English. Studies low-intermediate English usage, correct speech and writing forms and patterns, verb tenses and their related structures, and use of nouns, pronouns, adverbs, sentence connectives, descriptives, and related forms. Introduces modal auxiliaries, conditional sentence usage, phrases, and adjective clauses.

ESL 1310
Listening/Speaking Level III
4:4:1 **Su, F, Sp**
• Prerequisite: Appropriate placement scores
For students whose native language is other than English. Studies high-intermediate concepts of pronunciation, intonation, stress, and English phonics. Expands use of simple statements, questions, and commands on familiar topics as well as academic lectures. Emphasizes active participation in academic and social conversations. Includes weekly use of the UVSC Language Lab where high-intermediate conversation skills are emphasized and practiced.

ESL 1320
Reading Level III
5:5:0 **Su, F, Sp**
• Prerequisite: Appropriate placement scores
For students whose native language is other than English. Studies high-intermediate vocabulary, word attack skills, English dictionary usage, and comprehension skills. Encourages reading for pleasure and for information. Practices academic and job-related reading skills. Emphasizes extensive reading.

ESL 1330
Writing Level III
4:4:1 **Su, F, Sp**
• Prerequisite: Appropriate placement scores
For students whose native language is other than English. Studies high-intermediate English writing conventions including applied grammar and usage, word choice, style, organization, idea development, and technical accuracy. Explores longer academic writing tasks. Includes weekly use of the LEC Computer Classroom where high-intermediate writing skills are emphasized and practiced.

ESL 1340
Grammar Level III
5:5:0 **Su, F, Sp**
• Prerequisite: Appropriate placement scores
For students whose native language is other than English. Studies high-intermediate English usage, correct speech and writing forms and patterns, verb tenses and their related structures, and use of nouns, pronouns, adverbs, sentence connectives, descriptives, and related forms. Expands use of modal auxiliaries, conditional sentence usage, phrases and adjective clauses. Introduces noun and adverbial clauses.

ESL 1410 **LH**
Advanced Listening/Speaking
4:4:1 **Su, F, Sp**
• Prerequisite: Appropriate placement scores
For students whose native language is other than English. Studies advanced concepts or pronunciation, intonation, stress, English phonics, critical thinking, and vocabulary. Provides opportunities for students to build confidence in public speaking. Emphasizes speaking and listening in advanced academic situations such as note-taking and participating in class discussions and debates. Includes weekly use of the UVSC Language Lab where advanced conversation skills are emphasized and practiced. Satisfies AAS Humanities requirements.

ESL 1420 **LH**
Advanced Reading/Vocabulary
5:5:0 **Su, F, Sp**
• Prerequisite: Appropriate placement scores
For international students whose native language is other than English. Using the English language, emphasizes developmental activities in finding stated main ideas and details, understanding inferred main ideas, 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 AAS Humanities requirements.

ESL 1430 **LH**
Advanced Composition
4:4:1 **Su, F, Sp**
• Prerequisite: Appropriate placement scores
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 1440 **LH**
Advanced Grammar
5:5:0 **Su, F, Sp**
• Prerequisite: Appropriate placement scores
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.

FACILITIES MANAGEMENT

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Advisory Committee: Mark Woods (chairperson), Novell, Inc.; Phil Lott, Provo School District; Bob Clark, Utah Valley State College, Physical Plant; Bob Whimpey, Nature's Sunshine; Larry Robinson, Intermountain Healthcare - Urban South Region.

School of Computing, Engineering and Technology

Dean: Thomas McFarland
Office: CS 720b
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CAREER OPPORTUNITIES

The Facilities Management program 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. Wherever there are buildings to be maintained there is a career opportunity for the facility manager.

The job of the facility manager can vary considerably depending on the employing institution, but some of the more common responsibilities are:

- providing environmental control such as heating and cooling
- maintaining buildings and grounds
- approving changes in existing structures and approving plans for new facilities
- supervising personnel
- purchasing
- budgeting and accounting
- preventative maintenance and protection of physical property
- scheduling regular maintenance of facilities
- planning and logistics

PROGRAMS

Two options are available: an Associate in Applied Science degree and a Bachelor of Science in Technology Management degree.

Reminder: an overall grade point average of 2.0 (C) or higher is required for graduation.

AAS IN FACILITIES MANAGEMENT — 63 CREDITS

General Education Requirements:			23 Credits
• ENGL	1010	Introduction to Writing	3
• DT	1600	Technical Math (Algebra)	3
• SOC	1010	Introduction to Sociology	3
• PHIL	2050	Ethics and Values (highly recommended)	3
• PHYS	1010	Elementary Physics	3
• ENVT	1200	Environmental Worker Safety	3
Discipline Core Requirements:			45 Credits
• ACRT	2420	Heating and Air Conditioning Controls	5
• BCCM	1120	Blueprint Reading	2
• BCCM	1270	Construction Scheduling	2
• BIT	1010	Building Codes	3
• BIT	1240	Plumbing Codes	3
• BIT	1330	Mechanical Codes	3
• BIT	1340	Electrical Codes	3
• ECT	1000	Survey of Electronics	2
• FAC	1010	Survey of Facilities Management	3
• FAC	1600	Survey of Grounds and Building Maintenance (optional)	
• FAC	281R	Cooperative Work Experience (take twice)	8
• FAC	285R	Cooperative Correlated Class (take twice)	2
• ISYS	1050	Basic Computer Applications	3
• MGMT	2200	Written Business Communication	3
• MGMT	2420	Supervisory Management	3
Graduation Requirements:			
1		Completion of a minimum of 63 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 UVSC.	
4		Completion of GE and specified departmental requirements.	

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Facilities Management

Specialty Core Requirements:			45 Credits
• ACRT	2420	Heating and Air Conditioning Controls	5
• BCCM	1120	Blueprint Reading	2
• BCCM	1270	Construction Scheduling	2
• BIT	1010	Building Codes	3
• BIT	1240	Plumbing Codes	3
• BIT	1330	Mechanical Codes	3
• BIT	1340	Electrical Codes	3
• DT	1600	Technical Math (Algebra)	3
• ECT	1000	Survey of Electronics	2
• ENVT	1200	Environmental Worker Safety	3
• FAC	1010	Survey of Facilities Management	3
• FAC	1600	Survey of Grounds and Building Maintenance (optional)	
• FAC	281R	Cooperative Work Experience (take twice)	8
• FAC	285R	Cooperative Correlated Class (take twice)	2
• MGMT	2200	Written Business Communication	3

NOTES:
No upper division Technology Management (i.e. Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.

BS IN TECHNOLOGY MANAGEMENT (CON'T) 124 CREDITS

Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

Due to the technical nature of the material in FAC courses, additional reading and math instruction may be required. More information will be given during advisement.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

FAC 1010
Survey of Facilities Management
3:3:0 F
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 1600
Survey of Grounds and Building Maintenance
3:3:0 On Sufficient Demand
Teaches the knowledge and application skills necessary for Facilities Managers to maintain a facility's exterior appearance and weather protection. Uses theory, hands-on applications, and case studies.

FAC 281R
Cooperative Work Experience
1-8:0:5-40 F, Sp
• Corequisite: FAC 285R
For Facilities Management majors. Includes student, employer and coordinator evaluation, on-site work visits, written assignments, and oral presentations. Includes correlation of work experience and enrollment by a coop coordinator. Provides experience in writing and completing individualized work objectives improving present work performance.

FAC 285R
Cooperative Correlated Class
1:1:0 F, Sp
• Corequisite: FAC 281R
Allows FAC majors to correlate with Facilities Management Coordinator to gain proper work experience. Includes student, employer, and coordinator evaluations. Requires written assignments and oral presentations. Provides individualized work objectives to improve work and communications skills.

FINANCE AND ECONOMICS

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School of Business:
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The business world is more competitive today than in past generations. Decision makers understand they have to get things right the first time using current models and measurement methods to make those decisions. The classes taught in the Department of Finance and Economics give students the background to make those decisions.

Experienced faculty work with students in both the theory and application of the principles of finance, economics, statistics, and operations management. The integration of the skills learned in these disciplines when applied through the strategic management course during the last semester will support students' development as business professionals.

JOB OUTLOOK

The need for financial information is increasing at all levels of business and government. Job demand is high, particularly in larger metropolitan areas, and the employment outlook is excellent. Those trained in finance and economics with a computer emphasis may enter highly computerized fields such as fund management, energy, securities, securities market regulation, or government financial management. Those trained in finance and economics with a fluency in one or more foreign language may enter the fast growing areas of international business, international finance, import/export, or foreign securities analysis.

A Bachelor of Science Degree (BS) in Business with a Finance and Banking Specialization is available for students interested in this area.

PROGRAMS

Students interested in finance and economics may receive a Bachelor of Science Degree (BS) in Business with a Finance and Banking Specialization. An Associate in Science (AS) School of Business transfer degree is available for students planning to transfer to another college or university in Utah. (See the School of Business section of the catalog for details on the AS degree.)

BS IN BUSINESS MANAGEMENT
WITH AN EMPHASIS IN
FINANCE AND BANKING — 122 CREDITS

General Education Requirements:			**36 Credits**
•	ENGL 1010	Introduction to Writing	3
•	ENGL 2010	Intermediate Writing: Humanities/ Social Science	
or	ENGL 2020	Intermediate Writing: Science/ Technology	3
•	MATH 1050	College Algebra	4
or	An Advanced Placement (AP) Mathematics Test with a score of 3 or higher		
Complete one of the following:			3
•	HIST 1700	American Civilization	
•	HIST 2700	US History to 1877	
and	HIST 2710	US History since 1877	
•	ECON 1740	US Economic History	
•	POLS 1000	American Heritage	
•	POLS 1100	American National Government	
Complete the following:			
•	PHIL 2050	Ethics and Values	3
•	HLTH 1100	Personal Health & Wellness	
or	PES 1097	Fitness for Life	2
Distribution Courses			
•	MGMT 2020	Macroeconomics (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:			**49 Credits**
Business Foundation Courses:			
•	ACC 2010	Financial Accounting	3
•	ACC 2020	Managerial Accounting	3
•	Business Computer Proficiency Exam**		
or	ISYS 1050	Basic Computer Applications**	3
•	MATH 1100	Introduction to Calculus	4
•	MGMT 2010	Microeconomics	3
•	MGMT 2200	Written Business Communication	3
•	MGMT 2340	Business Statistical Applications	3
•	MGMT 2390	Effective Business Presentations	3
Business Core Courses:			
•	ISYS 3120	Principles of Information Systems: A Managerial Approach	3
•	LEGL 3000	Business Law	3
•	MGMT 3010	Principles of Management	3
•	MGMT 3100	Principles of Finance*	3
•	MGMT 3450	Operations Management*	3
•	MGMT 3600	Principles of Marketing	3
•	MGMT 3890	Career Preparation	2
•	MGMT 4800	Strategic Management*	3
•	MGMT 495R	Executive Lecture Series	1
or	MGMT 493R	Entrepreneurship Lecture Series	
Specialty Core Requirements:			**15 Credits**
•	MGMT 3300	Survey of International Business	3
•	MGMT 3150	Financial Management	3
•	MGMT 3400	Investment Management	3
•	MGMT 4100	Management of Financial Institutions	3

BS IN BUSINESS MANAGEMENT
WITH AN EMPHASIS IN
FINANCE AND BANKING (CON'T) — 122 CREDITS

•	MGMT 4310	Managerial Economics	3
Speciality Elective Requirements:			**12 Credits**
Select 12 credits from the following list:			12
•	MGMT 4150	Public Finance	
•	MGMT 4180	International Finance	
•	MGMT 4400	New Venture Financing	
•	Any Accounting Course Numbered 3010 or higher		
Discipline Elective Requirements:			**10 Credits**
•	Complete 4 credits of General Education courses		4
•	Complete 6 credits of any School of Business Course		6

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 School of Business courses. No grade lower than a "C-" in core and specialization courses.
3. Residency hours: Minimum of 30 credit hours of School of Business courses through course attendance at UVSC, 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.

*Courses with an asterisk (*) cannot be taken until student is matriculated.
**Students will be required to complete the business computer proficiency exam with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher in each of the six modules.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

MGMT 1060
Personal Finance
3:3:0 — **F, Sp**
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.

MGMT 2010
Microeconomics
3:3:0 — **F, Sp**
• Prerequisite: MGMT 2020
Designed for business management transfer students and as elective credit for other business students desiring economic decision-making skills. Covers intermediate microeconomics. Uses lecture, class discussion, videos, student

presentations, and computer simulation. Completers should be ready to take university upper-level economics courses and to make upper-level management decisions.

MGMT 2020 SS
Macroeconomics
3:3:0 Su, F, Sp
• Prerequisite: MATH 1050
Required for all business management students. Introduces macro and microeconomics. Presents the necessary economic background to prepare students to function as citizens in business in a world economy and understand the role of economic policy in the United States. Uses lecture, class discussions, student presentations, computer simulations, and videos. Completers should have the necessary prerequisite knowledge to successfully gain admittance to upper-division university economics courses.

MGMT 2240
Foundations of Business Statistics
3:3:0 F, Sp
• Prerequisite: MATH 1050
For bachelor degree business management majors; elective credit for other School of Business majors. Studies quantitative tools, which aid in decision making. Teaches use of algebra, mathematical programming, probabilities, and calculus to solve typical business problems. Uses lectures and problem sets to explain concepts.

MGMT 2340
Business Statistical Applications
3:3:0 Su, F, Sp
• Prerequisite: MGMT 2240 or MATH 1100
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.

MGMT 2350
Money and Banking
3:3:0 On Sufficient Demand
Designed for finance and banking majors and as elective credit for other business majors. Studies a banker's stock-in-trade "money" and how it functions in the US and world economies. Explores money as a medium of exchange, introduces the concept of money supply, and discusses the role of banks as money creators and as participants in the nation's payment mechanism. Explains the operations of financial institutions, including cross-selling, collections, and lending practices; the working of monetary and fiscal policies and the functions and powers of the Federal Reserve. Methods include lectures, class discussions, and case studies.

MGMT 3070
Total Quality Management
3:3:0 On Sufficient Demand
• Prerequisite: MGMT 3450 and Matriculation into Business Management Bachelor Degree Program
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.

MGMT 3100
Principles of Finance
3:3:0 Su, F, Sp
• Prerequisite: MGMT 2020, MGMT 2340, and ACC 2020 or ACC 3000
For bachelor degree business management majors. Includes financial management in the business environment, time value of money, working capital policies, and fundamentals of security valuation. Covers dividend policy; options, convertibles, and warrants; leasing, mergers and acquisitions; and a brief overview of international finance.

MGMT 3150
Financial Management
3:3:0 F
• Prerequisite: MGMT 3100 and Matriculation into the Business Management Bachelor Degree Program
Teaches fundamentals necessary to analyze financial statements, identify management problems, determine causes, and make sound decisions. Covers cash flow; vertical, horizontal, and ratio analyses; break even analyses, and profit volume analyses. Discusses tools of financial management, operating leverage, and projections. Requires a written financial analysis paper.

MGMT 3340
Managerial Statistics
3:3:0 On Sufficient Demand
• Prerequisite: MGMT 2340
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.

MGMT 3400
Investment Management
3:3:0 F
• Prerequisite: MGMT 2340, MGMT 3100 and Matriculation into the Business Management Bachelor Degree Program
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 hypothesis, capital asset pricing, strategies of portfolio construction, performance measures, and risk/return relationships.

MGMT 3450
Operations Management
3:3:0 Su, F, Sp
• Prerequisite: MGMT 2340 and Matriculation into Business Management Bachelor Degree Program
Focuses on the management of resources for products or services within an organization. Covers facility location and layout, planning, and operational processes. Emphasizes product/service development, forecasting, inventory control, quality assurance, and research techniques.

MGMT 3470
Lean Management Systems
3:3:0
• Prerequisite: MGMT 3450
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.

MGMT 3810
Labor Economics
3:3:0 On Sufficient Demand
• Prerequisite: MGMT 2010 and Matriculation into the Business Management Bachelor Degree Program
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.

MGMT 3820
Contemporary Comparative Economic Systems
3:3:0 On Sufficient Demand
• Prerequisite: MGMT 2010 and Matriculation into the Business Management Bachelor Degree Program
Guides students through an analysis of western capitalism, the emergence of communist economic systems from the failure of planned/command economic structure to a market system, and the development of other third-world economic systems seeking to improve their economic status. Develops procedures for evaluating the merits of alternative systems, describing procedures in place, and recommending procedures needed to improve economic efficiency.

MGMT 3830
History of Economic Thought
3:3:0 On Sufficient Demand
• Prerequisite: MGMT 2010 and Matriculation into the Business Management Bachelor Degree Program
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 Aus-

trian 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.

MGMT 4100
Management of Financial Institutions
3:3:0 Sp
- Prerequisite: MGMT 2340, MGMT 3100 and Matriculation into the Business Management Bachelor Degree Program

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.

MGMT 4150
Public Finance
3:3:0 On Sufficient Demand
- Prerequisite: MGMT 2010

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.

MGMT 4180
International Finance Management
3:3:0 Sp
- Prerequisite: MGMT 3100 and MGMT 3300 and (MGMT 3150 or MGMT 3400 or MGMT 4100)

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.

MGMT 4310
Managerial Economics
3:3:0 F, Sp
- Prerequisite: MGMT 2010, MGMT 2340 and Matriculation into the Business Management Bachelor's Degree Program

Covers advanced calculus-based economics. Studies estimation, forecasting, and market research. Emphasizes group discussions, student presentations, and case problems.

MGMT 4340
Advanced Econometrics Applications
3:3:0 On Sufficient Demand
- Prerequisite: MGMT 3340 and Matriculation into the Business Management Bachelor Degree Program

Provides an opportunity for economics students with mathematical and statistical skills to apply those capabilities in real-world applications of the science of econometrics. Examines some of the well-known examples of econometric analysis that formed the foundation of econometrics science. Develops analytical skill by defining data inputs and working through a series of projects of the type students might encounter in future professional experience.

MGMT 4500
History of Economic Development in the United States
3:3:0 On Sufficient Demand
- Prerequisite: MGMT 2010 and Matriculation into the Business Management Bachelor Degree Program

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.

MGMT 4710
Theory of Constraints
3:3:0 On Sufficient Demand
- Prerequisite: Senior Status

Teaches management problem solving through discovery. Identifies problems hidden from immediate observation. Studies total quality management, lean production models, Just-in-Time management systems, banking systems, and retail systems. Includes lectures, group activities, videos, and class discussions.

MGMT 4800
Strategic Management
3:3:0 Su, F, Sp
- Prerequisite: All core classes, senior standing, and Matriculation into a School of Business bachelor degree program

The capstone course for the Bachelor Degree in Business Management. Provides a program of study designed to integrate all functional management area skills via case analysis and methods while instilling strategic management concepts and thinking processes. Includes written and oral reports, lectures, class discussions, and group projects, and when appropriate, utilizes videos and guest speakers.

MGMT 4830
Strategic Management Capstone Simulation
1:1:0 Su, F, Sp
- Corequisite: MGMT 4800

Capstone simulation application to be taken by students in the outlined courses. Integrates strategic course material with hands-on simulation of decisions that will be required of students when they move into the real world of work

MGMT 4960
Senior Seminar Current Economic Issues
3:3:0 On Sufficient Demand
- Prerequisite: Department Chair Approval and Matriculation into the Business Management Bachelor Degree Program

Provides exposure to emerging topics of current interest in economics. Topics vary each semester.

FIRE SCIENCE

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Advisory Committee/Utah Fire Service Standards and Training Council: Chief Stephen H. Higgs, Utah State Fire Chief 's Association; Captain Merlin Baker, Utah State Fireman's Association; Chief Kelly Pitcher, Utah Fire Marshal's Association; Training Officer Dave Milligan, Utah Hazardous Materials Institute; Battalion Chief Eldon Farnsworth, International Association of Arson Investigators; Fire Management Coordinator David Dalrymple, Utah Division of Forestry, Fire and State Lands; Craig Golden, Professional Firefighters of Utah; Battalion Chief Jim Bacon, Utah Fire Service Certification Council; Layne Pace, Utah Training Officers Association.

School of Computing, Engineering and Technology

Dean: Tom McFarland
Office: CS 720b
Telephone: 801-863-8995

CAREER OPPORTUNITIES

Nationally, over 102,000 jobs in fire science will be available in the 2000's. In Utah approximately 100 openings will be available annually in city and county fire departments. In addition, many local industries have private fire brigades with career opportunities. Opportunities for employment are available in fire departments, public safety departments, and ambulance companies for firefighters, driver-operators, EMTs, arson investigators, fire marshals and fire inspectors. Private industry positions are available as safety officers, fire marshals, fire inspectors, and emergency medical personnel.

CLASS SCHEDULING

Fire Science classes are scheduled to meet the needs of firefighters working 24-hour shift assignments. During each semester, classes are offered during the day, afternoons, evenings and weekends. Classes designed primarily for working fire-fighters are scheduled on a weekend or seminar basis, and are often available for either college credit or continuing education credit. The seminar sessions are not always listed in the College semester schedule, but are announced through the bi-monthly Straight Tip newsletter. For more information on currently scheduled classes, call (801) 863-7700, or check our web page at www.uvsc.edu/ufra.

PROGRAM REQUIREMENTS FOR ENROLLMENT

There are departmental enrollment requirements for Recruit Candidate Academy courses and Firefighter/Paramedic courses. Enrollment into certain off-campus or block course sections each semester may be limited to those with existing professional certifications and/or already employed by an emergency services agency.

Recruit Candidate Academy courses FSF 1310, 1320, 1330, and 1340. Enrollment is done by means of a program application process. Prior to enrollment, students must:

1. Complete all UVSC admission requirements.
2. Meet with a Fire Science Advisor.
3. Complete FSF 1000 and FSF 1140 courses with at least a "C-"
4. Obtain COMPASS Writing/DRP scores C of 80+/77+, or ACT English/ACT Reading scores of 19+/19+, or ACT English/ACT Composite scores of 19+/19+, or SAT English score of 500+, or completion of ENGH 0990 or higher. ACT or SAT reports may not be older than 10 years.
5. Obtain COMPASS Pre-Algebra score of 70+, or ACT mathematics score of 17+, or SAT mathematics score of 450+, or completion of MAT 0990 or higher, ACT or SAT reports may not be older than 10 years.
6. Successfully complete the Candidate Physical Ability Test (CPAT) within 9 months of course start date.
7. Obtain a physical examination within 6 months of start date
8. Pass a Recruit Candidate Academy review board.

Paramedic program courses FSE 2500, 2510, 2520, and 2530. Enrollment is done by means of a program application process. Prior to enrollment students must:

1. Complete ZOOL 1090 with a grade of "C" or higher.
2. Obtain COMPASS Writing/DRP scores C of 80+/77+, or ACT English/ACT Reading scores of 19+/19+, or ACT English/ACT Composite scores of 19+/19+, or SAT English score of 500+, or completion of ENGH 0990 or higher. ACT or SAT reports may not be older than 10 years.
3. Obtain COMPASS Pre-Algebra score of 70+, or ACT mathematics score of 17+, or SAT mathematics score of 450+, or completion of MAT 0990 or higher, or completion of FSF 1350. ACT or SAT reports may not be older than 10 years.
4. Be able to comply with criminal background check requirements of UCA 26-8a-310 for certification as a paramedic in the state of Utah.
5. Have at least one year's experience as an EMT-Basic and have current CPR certification.
6. Be at least 18 years old and have a valid driver's license.
7. Have current vaccinations, including Hepatitis B, MMR and Tetanus.
8. Have current TB test results.
9. Complete a medical history form and obtain a current physical examination.
10. Pass a paramedic course entry examination and interview.

PROGRAMS

Five options are available: (1) One-Year Certificate, (2) Associate in Applied Science Degree, Fire Science Major with a Fire Officer Specialization or a Firefighter/Paramedic Specialization, (3) Associate in Science (4) Bachelor of Science Degree in Public Emergency Services Management, (5) Bachelor of Science in Technology Management Degree with a Technical Specialty in Fire Science.

Students may earn only one Associate in Applied Science Degree in Fire Science that is posted to the UVSC transcript.

FIREFIGHTER RECRUIT CANDIDATE CERTIFICATE 32 CREDITS

Discipline Core Requirements:				32 Credits
•	ENGL	1010	Introduction to Writing	3
or	ENGL	1060	Career Writing for Technology	
•	FSF	1000	Survey of Fire and Rescue Emergency Services	3
•	FSF	1140	Emergency Medical Technician-Basic	6
•	FSF	1310	Recruit Candidate Academy - Fundamentals	8
•	FSF	1320	Recruit Candidate Academy - Skills	3
•	FSF	1330	Recruit Candidate Academy - Operations	3
•	FSF	1340	Hazardous Materials First Responder	3
•	FSF	1350	Mathematics for the Fire Service	3
or	MAT	1010	Intermediate Algebra	
or	MAT	1000	Integrated Beginning and Intermediate Algebra	

Graduation Requirements:
1 Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA).

FIREFIGHTER RECRUIT CANDIDATE CERTIFICATE (CON'T) 32 CREDITS

NOTE:
CERTIFICATION: Upon completion of courses for the Basic Recruit Candidate 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 Service Certification System. Students are also eligible for certification at the Emergency Medical Technician-Basic level through the Utah Bureau of Emergency Medical Services.

PARAMEDIC CERTIFICATE 34 CREDITS

Discipline Core Requirements: 34 Credits
- FSE 2500 Paramedic I 5
- FSE 2510 Paramedic I Lab 3
- FSE 2520 Paramedic II 7
- FSE 2530 Paramedic III 4
- FSE 2540 Paramedic IV 6
- FSE 2550 Paramedic Work Experience 6
- ZOOL 1090 Introduction to Human Anatomy and Physiology 3

Graduation Requirements:
1. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA). Upon completion, students are eligible to apply for certification as an Emergency Medical Technician/Paramedic through the Utah Bureau of Emergency Medical Services.

AAS IN FIRE SCIENCE 63 CREDITS

General Education Requirements: 16 Credits
- ENGL 1010 Introduction to Writing 3
- or ENGL 1060 Career Writing for Technology
- FSF 1350 Mathematics for the Fire Service 3
- or MAT 1010 Intermediate Algebra
- or MAT 1000 Integrated Beginning and Intermediate Algebra
- Any approved Humanities, Fine Arts, or Foreign Language Distribution Course (COMM 1020 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 (PES 1097 recommended) 1

Specialty Core Requirements: 47 Credits
Complete one of the following specializations (see detail below):
- Fire Officer
- Firefighter/Paramedic

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 UVSC.
4. Completion of GE and specified departmental requirements.

Fire Officer

Specialty Core Requirements: 21 Credits
Choose 21 credits from the following:
- FSO 2020 Incident Command
- FSO 2030 Fire Inspector I
- FSO 2040 Fire Origin and Cause—Operations I
- FSO 2050 Fire Protection and Detection Systems
- FSO 2060 Fire Service Management and Administration
- FSO 2080 Building Construction for the Fire Services
- FSO 2090 Fire Officer I
- FSO 2100 Fire Supervision and Leadership
- FSO 2110 Fire Instructor I and II
- FSO 2500 Wildland/Urban Interface Fire Protection

Specialty Elective Requirements: 26 Credits
- Any Lower-division Fire Science Courses 26

NOTE:
Upon completion, students are eligible to apply for certification at the Fire Inspector I, Fire Service Instructor I, Fire Service Instructor II, Fire Officer I, and Fire Officer II levels through the Utah Fire Service Certification system.

Firefighter/Paramedic

Specialty Core Requirements: 31 Credits
- FSE 2500 Paramedic I 5

AAS IN FIRE SCIENCE (CON'T) 63 CREDITS

- FSE 2510 Paramedic I Lab 3
- FSE 2520 Paramedic II 7
- FSE 2530 Paramedic III 4
- FSE 2540 Paramedic IV 6
- FSE 2550 Paramedic Work Experience 6

Specialty Elective Requirements: 16 Credits
- Any Lower-division Fire Science Courses 26

Note:
Upon completion, students are eligible to apply for certification as an Emergency Medical Technician-Paramedic through the Utah Bureau of Emergency Medical Services.

AS PRE MAJOR IN FIRE SCIENCE 60 CREDITS

General Education Requirements: 35 Credits
- Complete General Education requirements as detailed in the General Education section of this catalog.

Discipline Core Requirements: 24 Credits
Complete one of the following options:
Option 1: Choose 24 credits from the following list 24
- FSO 2020 Incident Command
- FSO 2030 Fire Inspector I
- FSO 2040 Fire Origin and Cause—Operations I
- FSO 2050 Fire Protection and Detection Systems
- FSO 2060 Fire Service Management and Administration
- FSO 2080 Building Construction for the Fire Services
- FSO 2090 Fire Officer I
- FSO 2100 Fire Supervision and Leadership
- FSO 2110 Fire Instructor I and II
- FSO 2500 Wildland/Urban Interface Fire Protection
- Any lower division Fire Science course

Option 2: Choose 24 credits from the following list 24
- FSE 2500 Paramedic I
- FSE 2510 Paramedic I Lab
- FSE 2520 Paramedic II
- FSE 2530 Paramedic III
- FSE 2540 Paramedic IV

Elective Requirements: 1 Credits
- Complete any course 1000 or higher 1

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 UVSC
4. Completion of GE and specified departmental requirements

BS IN PUBLIC EMERGENCY SERVICES MANAGEMENT 120 CREDITS

General Education Requirements: 35 Credits
- ENGL 1010 Introduction to Writing 3
- ENGL 2010 Intermediate Writing—Humanities/Social Science 3
- or ENGL 2020 Intermediate Writin—Science and Technology

Complete one of the following: 3
- MATH 1030 Quantitative Reasoning
- MATH 1040 Introduction to Statistics
- MATH 1050 College Algebra

Complete one of the following: 3
- HIST 1700 American Civilization
- HIST 2700 US History to 1877
- and HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health and Wellness
- or PES 1097 Fitness for Life 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: 61 Credits
Complete 21 credits of Lower Division Courses: 21
- FSE 2500 Paramedic I
- FSE 2510 Paramedic I Lab
- FSE 2520 Paramedic II
- FSE 2530 Paramedic III
- FSE 2540 Paramedic IV
- FSE 2550 Paramedic Work Experience
- FSO 2020 Incident Command
- FSO 2030 Fire Inspector I

BS IN PUBLIC EMERGENCY SERVICES MANAGEMENT (CON'T) 120 CREDITS

- FSO 2040 Fire Origin and Cause—Operations I
- FSO 2050 Fire Protection and Detection Systems
- FSO 2060 Fire Service Management and Administration
- FSO 2080 Building Construction for the Fire Services
- FSO 2090 Fire Officer I
- FSO 2100 Fire Supervision and Leadership
- FSO 211A Fire Service Instructor I
- and FSO 211B Fire Service Instructor II
- or FSO 2110 Fire Instructor I and II
- FSO 2200 Fire Officer Work Experience
- FSO 2500 Wildland/Urban Interface Fire Protection
- ISYS 1050 Basic Computer Applications

Complete the following Upper Division Courses:
- PESM 3300 Public Program Administration 3
- PESM 3500 Analytical Approaches to Emergency Services Delivery 3
- PESM 3700 Master Planning for Public Emergency Services 3
- PESM 3800 Public Administration and Emergency Management 3
- PESM 4100 Health and Safety Program Management 3
- PESM 4500 Managing Emergency Medical Services 3
- PESM 4900 Advanced Seminar in Public Emergency Services Management 3
- ENGL 4310 Advanced Technical Writing 3
- ISYS 3120 Principles of Information Systems: A Managerial Approach 3
- LEGL 3000 Business Law 3
- ACC 3000 Financial, Managerial and Cost Accounting Concepts 4
- MGMT 3430 Human Resource Management 3
- MGMT 4150 Public Finance 3

Elective Requirements: 24 Credits
- Any Fire Science lower-division courses 24

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 PESM class with a "C-" or higher.
3. Residency hours—minimum of 30 credit hours through course attendance at UVSC, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.

BS IN TECHNOLOGY MANAGEMENT 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Fire Science

Specialty Core Requirements: 45 Credits
Complete 45 credits from the following: 45
- PESM 3300 Public Program Administration
- PESM 3700 Master Planning for Public Emergency Services
- PESM 4100 Health and Safety Program Management
- PESM 4500 Managing Emergency Medical Services
- PESM 4900 Advanced Seminar in Public Emergency Services Management
- FSD 1330 Fundamentals of Apparatus Operation
- FSD 1340 Fire Apparatus Skill
- FSE 2500 Paramedic I
- FSE 2510 Paramedic I Lab
- FSE 2520 Paramedic II
- FSE 2530 Paramedic III
- FSE 2540 Paramedic IV
- FSE 2550 Paramedic Work Experience
- FSF 1000 Survey of Fire and Rescue Emergency Services
- FSF 1010 Firefighting Fundamentals I
- FSF 1140 Emergency Medical Technician-Basic
- FSF 1210 Firefighting Skills I
- FSF 1220 Firefighting Fundamentals and Skills II
- FSF 1300 Wildland Firefighting Fundamentals
- FSF 1310 Recruit Candidate Academy - Fundamentals
- FSF 1320 Recruit Candidate Academy - Skills
- FSF 1330 Recruit Candidate Academy - Operations

BS IN
TECHNOLOGY MANAGEMENT (CON'T) 124 CREDITS

- FSF 1340 Hazardous Materials First Responder
- FSF 1350 Mathematics for the Fire Service
- FSH 2410 Hazardous Materials Technician Fundamentals
- FSH 2420 Hazardous Materials Technician Skills
- FSH 2440 Hazardous Materials Chemistry
- FSO 2020 Incident Command
- FSO 2030 Fire Inspector I
- FSO 2040 Fire Origin and Cause—Operations I
- FSO 2050 Fire Protection and Detection Systems
- FSO 2060 Fire Service Management and Administration
- FSO 2080 Building Construction for the Fire Services
- FSO 2090 Fire Officer I
- FSO 2100 Fire Supervision and Leadership
- FSO 2110 Fire Instructor I and II
- FSO 211A Fire Service Instructor I
- FSO 211B Fire Service Instructor II
- FSO 2200 Fire Officer Work Experience
- FSO 2500 Wildland/Urban Interface Fire Protection
- FSP 2340 Fire Origin and Cause—Operations II
- FSP 2350 Public Fire Education I
- FSR 2180 Environmental Rescue
- FSR 2700 Technical Rescue Principles
- FSR 2740 Rope Rescue

Notes:
No upper division Technology Management (ie Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

FS 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
- Corequisite: FS 285R

Designed for Fire Science majors. Provides paid, on-the-job work experience. Work experience and the correlated class are coordinated by the Cooperative Coordinator and director who must approve enrollment. Includes student, employer, and coordinator evaluations, on site work visits, written assignments, and oral presentations. Gives experience in writing and completing individualized work objectives that improve present work performance.

FS 282R
Wildland Firefighter Internship
1:0:3 Su
- Prerequisite: FSF 1300 or departmental approval

Provides experience in fighting fires at wildfire 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. A total of two credits may apply towards graduation.

FS 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
- Corequisite: FS 281R

Designed for Fire Science majors. Identifies on-the-job problems and provides remediation of those problems through in-class discussion and study. Studies identifying and maximizing service opportunities. Students register for this class with approval of the Cooperative Coordinator and director. 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.

FS 2910
Basic Firefighter Internship
2:0:10 Su, F, Sp
- Prerequisite: FSF 1330, FSF 1340, Instructor's recommendation and internship coordinator's approval.

For students who have completed the Recruit Candidate Academy courses and desire an opportunity to apply the knowledge, skills, and abilities learned in a realistic environment. Student interns will experience the fire service as a fully integrated member of a fire company in a career fire department. Additionally, the internship will emphasize the student's work ethic, attitude, and ability to adapt to highly stressful and sometimes dangerous situations.

FSD 1330
Fundamentals of Apparatus Operation
3:3:0 On Sufficient Demand

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.

FSD 1340
Fire Apparatus Skill
3:0:9 On Sufficient Demand
- Prerequisite: FSF 1220

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.

FSE 2500
Paramedic I
5:5:0 F, Sp
- Prerequisite: EMT-Basic Certification for one-year, ZOOL 1090 with a grade of "C" or higher. Completion of ENGL 1010, MAT 1010 or MAT 1000 or FSF 1350 with a grade of C- or higher, and departmental approval.
- Corequisite: FSE 2510, FSE 2520, and FSE 2530.

For first semester paramedic students with previous EMS experience. Introduces the Emergency Medical Services system and the role of the paramedic. Covers pre-hospital instruction for the care of the sick and injured including lectures in EMS communication, medical and legal considerations and documentation. Includes anatomy and physiology of the human body as it applies to emergency care. Discusses proper sterile technique, scene evaluations, and patient assessments. Covers acid/base, fluid and electrolytes and fluid resuscitation, patient assessment and emergency treatment of the respiratory and abdominal systems. Successful completers should be qualified to progress to the second semester program.

FSE 2510
Paramedic I Lab
3:0:9 F, Sp
- Corequisite: FSE 2500, FSE 2520, and FSE 2530

For first semester Paramedic students with previous EMS experience. Designed to allow hands-on practice and evaluation of the following skills: IV therapy, IO infusions, IM injections, SQ injections, oral and nasal intubation, thoracotomy, cricothyrotomy, defibrillation, transcutaneous pacing, cardioversion, medication delivery, and patient assessment. Completers should be qualified to progress to the second semester program.

FSE 2520
Paramedic II
7:6:3 F, Sp
- Corequisite: FSE 2500, FSE 2510, and FSE 2530

For first semester Paramedic students with previous EMS experience. Discusses the Emergency Medical Services system and the role of the paramedic. Covers pre-hospital instruction for the care of the sick and injured including lectures in pharmacology, cardiac rhythm and monitoring, ACLS, patient assessment and emergency treatment for the cardiac system, central nervous system and musculo-skeletal system. Includes mechanism of injury, burns, and the assessment and treatment of trauma patients. Completers should be qualified to progress to the second semester program.

FSE 2530
Paramedic III
4:4:0 F, Sp
- Corequisite: FSE 2500, FSE 2510, and FSE 2520

For first semester Paramedic students with previous EMS experience. Discusses the Emergency Medical Services system and the role of the paramedic. Covers pre-hospital instruction for the care of the sick and injured including lectures in diabetes, alcoholism, overdose and ingestion, and communicable diseases. Includes pediatrics

(PALS), obstetrics, child birth, care of the neonate, geriatrics, incident command system (ICS), interpersonal skills, and critical incident stress. Completers should be qualified to progress to the second semester program.

FSE 2540
Paramedic IV
6:5:3 **Su, Sp**
- Prerequisite: FSE 2500, FSE 2510, FSE 2520, and FSE 2530
- Corequisite: FSE 2550

For students who have completed the first semester of the Paramedic program. Discusses the Emergency Medical Services (EMS) system and the role of the paramedic within this system. Teaches the terms, definitions, concepts, and skills of a Paramedic through lecture and hands-on experience. Includes landing zones and safety, high angle rescue, Life-Pack 10, street smarts, death, dying and grieving, handling rape and domestic violence, substance abuse, EVO training, auto extrication, and forensic medicine. Successful completers should be able to meet the requirements listed in the National Standard D.O.T. Paramedic curriculum and the qualifications defined in the Utah Paramedic Training Program Accreditation Standards.

FSE 2550
Paramedic Work Experience
6:0:18 **Su, Sp**
- Prerequisite: FSE 2500, FSE 2510, FSE 2520, and FSE 2530
- Corequisite: FSE 2540

For students who have completed the first semester of the Paramedic program. Includes field internships with Paramedic rescue, hospital emergency department, pediatric emergency department, intensive care units, aeromedical service, labor and delivery, and operating room to provide field experience. Successful completers should be able to meet the requirements listed in the National Standard D.O.T. Paramedic curriculum and the qualifications defined in the Utah Paramedic Training Program Accreditation Standards.

FSF 1000
Survey of Fire and Rescue Emergency Services
3:3:0 **Su, F, Sp**

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. Develops basic emergency skills in hazard recognition, response organization, and fire extinguisher use.

FSF 1010
Firefighting Fundamentals I
3:3:0 **On Sufficient Demand**
- Corequisite: FSF 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.

FSF 1140
Emergency Medical Technician—Basic
6:3:9 **Su, F, Sp**

For first semester Fire Science students. Prepares students for certification as an Emergency Medical Technician-Basic through the Utah Bureau of EMS. Includes CPR, automatic defibrillation, patient assessment and treatment, legal issues, airway support, medical and trauma emergencies, emergency childbirth, pediatric emergencies and patient movement/transport.

FSF 1150
EMT Refresher Level I
2:1:2 **On Sufficient Demand**
- Prerequisite: FSF 1140

Provides in-service refresher information to maintain EMT Level I certification based on the D.O.T. requirements for emergency medical technicians. Focuses on required EMT skill mastery.

FSF 1160
Emergency Medical Technician—Intermediate Advanced I
6:4:6
- Prerequisite: (FSF 1140 or equivalent) or EMT-Basic Certification for one year or six months experience as a Utah EMT-Basic with prior Utah Bureau of Emergency Medical Services approval.

Prepares students for certification as an Emergency Medical Technician-Intermediate Advanced through the Utah Bureau of EMS. Includes advanced airway management, intravenous access, medication administration, cardiac rhythm interpretation and other advanced medical skills.

FSF 1210
Firefighting Skills I
4:0:12 **On Sufficient Demand**
- Corequisite: FSF 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.

FSF 1220
Firefighting Fundamentals and Skills II
3:1:6 **On Sufficient Demand**
- Prerequisite: FSF 1010 or Departmental approval

Teaches intermediate skills as described in NFPA 1001 Level II. Builds upon the basic skills taught in FSF 1010 and introduces new skills and knowledge in water supplies, portable extinguisher practices, inspection techniques, and rescue operations.

FSF 1300
Wildland Firefighting Fundamentals
3:2:3 **F, Sp**

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.

FSF 1310
Recruit Candidate Academy—Fundamentals
8:8:0 **F, Sp**
- Prerequisite: Departmental approval or completion of the following with a grade of "C-" or higher: FSF 1000, FSF 1140, ENGL 1010, and (MAT 1010 or MAT 1000 or FSF 1350).
- Corequisite: FSF 1320

For students with no previous fire fighting experience. Addresses the cognitive requirements of Firefighter I and II certification for NFPA 1001, Professional Qualifications for Firefighters. Includes orientation and safety behavior, building construction, protective equipment, portable extinguishers, ropes and knots, rescue and extrication, forcible entry, ladders, ventilation, water supply, fire hose, fire streams, fire control, detection and suppression systems, loss control, fire cause determination, communications, fire prevention, and public fire safety education.

FSF 1320
Recruit Candidate Academy—Skills
3:2:3 **F, Sp**
- Corequisite: FSF 1310

For students with no previous fire fighting experience. Addresses the manipulative skill requirements of Firefighter I and II certification per NFPA 1001, Professional Qualifications for Firefighters. Includes use of personal protective equipment and self-contained breathing apparatus, use of ropes and knots, use of hose lines and nozzles, performing ventilation, performing search and rescue, overhauling a fire scene, and identification of possible causes of a fire.

FSF 1330
Recruit Candidate Academy—Operations
3:2:3 **F, Sp**
- Prerequisite: FSF 1310 and FSF 1320
- Corequisite: FSF 1340

For students with no fire fighting experience. Addresses the operational and performance requirements of Firefighter I and II certification per NFPA 1001, Professional Qualifications for Firefighters. Includes flammable gas fire fighting, vehicle fire fighting, exterior fire fighting, interior fire attack, flat roof ventilation, pitched roof ventilation, hose lays, search and rescue operations, and self-rescue techniques.

FSF 1340
Hazardous Materials First Responder
3:3:0 F, Sp
• Prerequisite: FSF 1010 or Departmental approval
For first year Fire Science students. Addresses the Hazardous Materials First Responder requirements of NFPA 472 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. Completers should be able to conduct an incident size-up using the North American Emergency Response Guide, use personal protective equipment and conduct a decontamination procedure. Completers should be prepared to certify at both the Hazardous Materials Awareness and Operations levels.

FSF 1350
Mathematics for the Fire Service
3:3:0 On Sufficient Demand
For those seeking the Associate of Applied Science degree. 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 problems.

FSH 2410
Hazardous Materials Technician Fundamentals
3:3:0 On Sufficient Demand
• Prerequisite: FSF 1340
Teaches the knowledge requirements of NFPA 471, 472, 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.

FSH 2420
Hazardous Materials Technician Skills
2:0:6 On Sufficient Demand
• Prerequisite: FSH 2410
Presents the manipulative skill requirements of NFPA 471, 472, 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, setting up and operating decon, diking, plugging, and patching operations.

FSH 2440
Hazardous Materials Chemistry
3:2:3 On Sufficient Demand
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.

FSO 2020
Incident Command
3:3:0 F, Sp
Presents principles of managing an emergency through the utilization of manpower, equipment, and multi-agency involvement. Addresses an incident command system that emergency response agencies can utilize at local, state, and federal levels. Meets the incident command requirements of Fire Officer 1, NFPA 1021.

FSO 2030
Fire Inspector I
3:3:0 F, Sp
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.

FSO 2040
Fire Origin and Cause—Operations I
3:3:0 F, Sp
Presents fire cause and origin requirements in NFPA 1021 for Officer I certification. Includes determining the cause and origin of a fire, when to call an investigator, rules for preserving evidence, identifying fire setters, testifying in court, and the motives and methods of arsonists.

FSO 2050
Fire Protection and Detection Systems
3:3:0 F, Sp
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.

FSO 2060
Fire Service Management and Administration
3:3:0 F, Sp
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.

FSO 2080
Building Construction for the Fire Services
3:3:0 F, Sp
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.

FSO 2090
Fire Officer I
3:3:0 F, Sp
• Prerequisite: FSF 1330 or departmental approval
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.

FSO 2100
Fire Supervision and Leadership
3:3:0 F, Sp
Designed to bring together basic principles of effective supervision. Includes up-to-date findings from behavioral research practical guidelines for improving supervisory and leadership skills, and applying effective supervisory practices on the job.

FSO 2110
Fire Instructor I and II
3:3:0 F, Sp
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 audio visuals, and developing objectives.

FSO 211A
Fire Service Instructor I
1:1:0 F, Sp
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.

FSO 211B
Fire Service Instructor II
2:2:0 F, Sp
• Prerequisite: FSO 211A or Departmental Permission
For those who have already completed FSO 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.

FSO 2200
Fire Officer Work Experience
3:1:6 Su, F, Sp
• Prerequisite: FSO 2020 and FSO 2100
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.

FSO 2500
Wildland/Urban Interface Fire Protection
3:3:0 F, Sp
• Prerequisite: FSF 1300 or departmental approval
For advanced students. Prepares company officers and firefighters to suppress fires in developed areas bordering or intermixed with wildland areas. Teaches company officers and incident commanders to size-up an incident, create an initial strategy and action plan, perform structure triage, implement tactics, assess operations, deal with the public, and provide for safety. Completers should develop skills in prevention and mitigation of wildland urban interface fires.

FSP 2340
Fire Origin and Cause—Operations II
3:3:0 On Sufficient Demand
Reviews basic fire chemistry and fire cause determination. Explores the principles and methods of fire investigation. Presents fire scene search, laboratory procedures, securing evidence, and criminal investigation procedures. Culminates in a moot court arson trial.

FSP 2350
Public Fire Education I
2:2:0 On Sufficient Demand
Teaches professional qualifications of NFPA 1035. Identifies fire risks and problems in a community. Teaches selecting, designing, and implementing fire prevention and education programs.

FSR 2180
Environmental Rescue
3:2:3 On Sufficient Demand
• Prerequisite: FSF 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.

FSR 2700
Technical Rescue Principles
3:2:3 On Sufficient Demand
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. Completers should be prepared for enrollment in any of the technical rescue specialty courses (FSR 2040 - FSR 2090).

FSR 2740
Rope Rescue
3:2:3 On Sufficient Demand
• Prerequisite: FSF 1330 and FSF 1340; or departmental approval
Designed to meet 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/descent procedures.

PESM 3300
Public Program Administration
3:3:0 F
• Prerequisite: Completion of Fire Science AAS or Departmental approval
Emphasizes the development process and analytical skills necessary to assess risk in the community and then critique and select appropriate methodology to address problems. Looks at fire prevention programs as an example of legislative processes, codes and ordinances, budget development, etc.

PESM 3500
Analytical Approaches to Emergency Services Delivery
3:3:0 Sp
• Prerequisite: ISYS 3120
For Public Emergency Services Management students. Examines tools and techniques of rational decision-making in fire departments, including databases, statistics, probability, decision analysis, utility modeling, resource allocation, cost-benefit analysis, and linear programming.

PESM 3700
Master Planning for Public Emergency Services
3:3:0 Sp
• Prerequisite: Completion of Fire Science AAS or Departmental approval, ISYS 3120
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.

PESM 3800
Public Administration and Emergency Management
3:3:0 F
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.

PESM 4100
Health and Safety Program Management
3:3:0 Su
• Prerequisite: Completion of Fire Science AAS or Departmental approval, LEGL 3000, MGMT 3430
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.

PESM 4500
Managing Emergency Medical Services
3:3:0 F
• Prerequisite: Completion of Fire Science AAS or Departmental approval
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.

PESM 4900
Advanced Seminar in Public Emergency Services Management
3:3:0 Sp
• Prerequisite: Completion of Fire Science AAS or Departmental Approval
Public Emergency Services Management capstone course. Enables students to examine cutting-edge issues under the guidance of top professionals. Includes interviews with local and state officials to identify potential critical issues. Includes group and individual data research. Teaches presentation development for use before real or simulated policy-making bodies.

GEOGRAPHY

Department of History and Political Science

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Geography is the study of the interaction between human, physical and environmental systems and their distribution across the surface of the Earth. As a scientific field, geography is not simply about discovering where things are, but the theoretical and analytical understanding of concepts such as place, space and connectivity, within several disciplinary subfields such as cultural, economic, political and environmental geographies.

Geography is a multidisciplinary field having important linkages with anthropology, biology, environmental science, geology, history, political science, and sociology. Those with training in geography are prepared to work in a wide variety of career fields, including cultural studies, natural resource management, education, foreign service, law enforcement, marketing, disaster response, humanitarian relief, public administration, real estate, tourism, and urban planning.

GEOG 1300 and GEOG 2100 fulfill general education requirements in the social science distribution area. Several geography courses apply toward the Integrated Studies Social Sciences emphasis and may serve as electives in other programs. (See specific program requirements.)

PROGRAMS

BA/BS IN INTEGRATED STUDIES — 123 CREDITS

The following Integrated Studies emphases are available (see the Integrated Studies section of this catalog for complete degree requirement listings):

- Social Sciences

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

GEOG 1300 — SS
Survey of World Geography
3:3:0 — Su, F, Sp
For students who wish to have a better understanding of the world in which we live. Studies major countries of the world with special emphasis on location, physical environment, culture, resources, and current events.

GEOG 2100 — SS
Geography of the United States
3:3:0 — F, Sp
Surveys primarily the regional geography of the United States and, secondarily, of Canada. Explores subregions of each country in detail. Includes topics such as culture, environment, economy, urbanization, transportation systems, territory and political borders.

GEOG 2200
Geography of Europe
3:3:0 — On Sufficient Demand
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
3:3:0 — On Sufficient Demand
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 3010
Economic Geography
3:3:0 — On Sufficient Demand
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 3110
Urban Geography
3:3:0 — On Sufficient Demand
• Prerequisite: 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 3150
Social Geography
3:3:0 — On Sufficient Demand
• Prerequisite: (ENGL 2010 or 2020) or permission of instructor
Takes a spatial approach to understanding society, premised upon the notion that geographic space and social relationships are inescapably linked. Examines networks and relationships between individuals and groups at a number of scales, from interpersonal to global. Explores topics such as discrimination, segregation, poverty and homelessness.

GEOG 3250
Cultural Geography
3:3:0 — On Sufficient Demand
• Prerequisite: (ENGL 2010 or 2020) or permission of instructor
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 3430
Political Geography
3:3:0 — On Sufficient Demand
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 3630 (Cross-listed as ENVT 3630)
Introduction to Geographic Information Systems
4:3:2 — F
• Prerequisite: GEOG 1300
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.

GEOG 3800 (Cross-listed as HIST 3800)
Environmental History of the United States
3:3:0 — F
• Prerequisite: HIST 1700 or (HIST 2700 & HIST 2710)
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.

HISTORY

Department of History and Political Science

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The History Program at UVSC is dedicated to providing students with a broad range of opportunities in general education for global awareness and informed citizenship as well as discipline-specific courses for majors. Our classes lie at the heart of the collegiate experience. In them we observe the dynamics of the human condition through diverse and manifold historical perspectives. We endeavor to teach in ways that foster independent thinking, the analysis of human issues through reading and discussion, and the development of writing skills. Students who complete our programs will be well equipped for graduate study, and successful careers in public service or private enterprise.

Lower division courses in U.S. History fill general education requirements for American Institutions; other lower division courses meet the social science distribution requirement. Upper division courses may be applied toward the BA in History, BS in History Education, or an emphasis in the four-year Integrated Studies degree.

PROGRAMS

AA/AS PRE MAJOR IN HISTORY AND POLITICAL SCIENCE — 62 CREDITS

General Education Requirements — 35 Credits
- Complete General Education requirements as detailed in the General Education section of this catalog.

Discipline Core Requirements: — 16 Credits
- Complete 16 Credits from any ARCH, ECON, GEOG, HIST, or POLS courses.

Elective Requirements: — 11 Credits
- For AS degree: Any courses numbered 1000 or higher — 11

or For AA degree: One Foreign Language — 10
and Any course numbered 1000 or higher — 1

Graduation Requirements:
1. Completion of a minimum of 62 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 UVSC
4. Completion of GE and specified departmental requirements
5. For the AA degree, completion of 10 credit hours of course work from one language.

BA IN HISTORY — 120 CREDITS

Matriculation Requirements:
1. Completion of at least 30 semester hours of college credit, 15 hours of which must have been taken at UVSC;
2. Completion of the Application for Admission to the Bachelor of Arts Program in History;
3. Completion of HIST 1100 and 1110, or HIST 2700 and 2710;
4. Payment of a $20.00 nonrefundable matriculation fee;
5. Minimum G.P.A. of 2.5.

General Education Requirements: — 35 Credits
- ENGL 1010 Introduction to Writing — 3
- ENGL 2010 Intermediate Writing—Humanities/Social Science
- or ENGL 2020 Intermediate Writing—Science and Technology — 3

Complete one of the following: — 3
- MATH 1030 Quantitative Reasoning
- MATH 1040 Introduction to Statistics
- MATH 1050 College Algebra

Complete one of the following: — 3
- HIST 1700 American Civilization
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values — 3
- HLTH 1100 Personal Health & Wellness
- or PES 1097 Fitness for Life — 2

Distribution Courses:
- Biology — 3
- Physical Science — 3
- Additional Biology or Physical Science — 3
- Humanities Distribution (Fulfilled by completing Foreign Language Course 2020) — 3
- Fine Arts Distribution — 3
- Social/Behavioral Science — 3

Discipline Core Requirements: — 40 Credits
- GEOG 1300 Survey of World Geography — 3
- HIST 1100 History of Civilization I — 3
- HIST 1110 History of Civilization II — 3
- HIST 2700 U.S. History to 1877 — 3
- HIST 2710 U.S. History since 1877 — 3
- HIST 3010 The Nature of History — 3
- HIST 499A Senior Research Thesis - Research Component — 2
- HIST 499B Senior Research Thesis - Writing Component — 2
- TRACK ONE, BREADTH: Select two upper-division courses from each of three of the Areas of Study listed below. E.g., two from United State, two from Europe/Russia, and two from Latin America.
- or TRACK TWO, DEPTH: Select one upper-division course from each of four of the Areas of Study listed below, plus two electives from the same list. E.g., one from United States, one from Europe/Russia, one from Latin America, one from Comparative/Topical, plus two courses of your choice. — 18

Areas of Study

UNITED STATES*
- HIST 3200 Women in American History to 1870 — 3
- HIST 3210 Women in American History since 1870 — 3
- HIST 3260 History of Utah — 3
- HIST 3520 The United States and Vietnam, 1945 to Present — 3
- HIST 3700 The New Nation — 3

BA IN HISTORY (CON'T) — 120 CREDITS

- HIST 3710 Reform and Crisis in Antebellum America — 3
- HIST 3720 Colonial America — 3
- HIST 3740 American Revolution — 3
- HIST 3750 Civil War / Reconstruction — 3
- HIST 3760 Jacksonian America — 3
- HIST 3770 The Rise of Industrial America — 3
- HIST 3780 America from the Jazz Age to the Atomic Age — 3
- HIST 3790 United States since 1945 — 3
- HIST 3800 Environmental History of the United States — 3
- HIST 3810 American Indians to 1815 — 3
- HIST 3830 Contest for Territory: American Indians & US,1815-1891 — 3
- HIST 3850 Struggle for Self Determination: Am. Indians, 1891-pres — 3
- HIST 3870 Constitutional History to Plessy (1896) — 3
- HIST 3880 Constitutional History Since Plessy (1896) — 3
- HIST 4600 Contemporary American Indian Political & Social Issues — 3
- HIST 4620 History of the American West — 3

LATIN AMERICA*
- HIST 3040 Colonial Latin America — 3
- HIST 3050 Modern Latin America — 3
- HIST 4300 Violence and Social Conflict in Latin America — 3

EUROPE/RUSSIA*
- HIST 3110 Greek History — 3
- HIST 3130 Roman Republic — 3
- HIST 3140 Roman Empire
- HIST 3150 Medieval Europe — 3
- HIST 3160 Renaissance & Reformation Europe — 3
- HIST 3170 Absolutism, Enlightenment, and Revolution in Europe — 3
- HIST 3180 Nineteenth Century Europe — 3
- HIST 3190 Twentieth Century Europe — 3
- HIST 3320 Modern Britain — 3
- HIST 3660 The History of Modern Russia, 1864 to Present — 3

COMPARATIVE/TOPICAL*
- HIST 3420 History of Technology — 3
- HIST 3450 The History of World War II — 3
- HIST 3800 Environmental History of the United States — 3
- HIST 4100 Jewish History — 3
- HIST 4130 Anti-Semitism and the Holocaust — 3
- HIST 420R Issues and Topics in Global History — 3
- HIST 4320 History of Scientific Thought — 3
- HIST 471R Special Issues and Topics in American History — 3

AFRICA/ASIA/MIDDLE EAST*
- HIST 3030 Introduction to African History — 3
- HIST 3430 Middle East History, 1914-Present — 3
- HIST 3530 History of Vietnam — 3
- HIST 3540 History of South Africa — 3
- HIST 3610 History of Modern East Asia — 3
- HIST 4430 History of Iran: 1900 to Present — 3

Elective Requirements: — 45 Credits
- Any courses numbered 1000 or higher (15 credits must be upper division). — 30
- Complete additional 15 hours of one Foreign Language — 15

Graduation Requirements:
1. Completion of a minimum of 120 credits, 40 of which must be 3000 level or higher.
2. Minimum UVSC GPA of 2.0 upon graduation.
3. Complete General Education Requirements.
4. Completion of four semesters of one foreign language.
5. Complete one of the two tracks in the Areas of Study requirements.
6. Complete Core courses.
7. Comply with the catalog's rule on maximum number of years in the program.
8. Minimum of 30 credits must be taken at UVSC (at least 10 of which must be part of the final 45 credits earned.
9. Comply with the department's portfolio requirement

Notes:
Student should frequently consult with his/her advisor on program requirements.
*Upper-division courses in the following areas of study will be offered on a two-year rotating basis until such time as the Department has a sufficiently large cohort of History majors to justify shortening that rotation.

BS IN HISTORY EDUCATION — 120 CREDITS

Matriculation Requirements:

1. Completion of at least 30 semester hours of college credit, 15 hours of which must be taken at UVSC;
2. Completion of the Application for Admission to the Bachelor of Science Degree in History Education;
3. Completion of HIST 1100 and 1110, or HIST 2700 and 2710:
4. Payment of nonrefundable matriculation fee;
5. Minimum G.P.A. of 2.75.

General Education Requirements:			36 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	3
or ENGL	2020	Intermediate Writing—Science and Technology	
• MATH	1050	College Algebra (recommended for Business, Education, Science, and Health Professions majors)	4
Complete one of the following:			3
• HIST	1700	American Civilization	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health & Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses			
• Biology			3
• Physical Science			3
• Additional Biology or Physical Science			3
Humanities Distribution			3
• ENGL	2510	American Literature before 1865	
or ENGL	2520	American Literature after 1865	
or ENGL	2610	British Literature before 1800	
or ENGL	2620	British Literature after 1800	
• Fine Arts Distribution			3
Social/Behavioral Science			3
• POLS	1010	Introduction to Political Science	
or POLS	2200	Introduction to Comparative Politics	
or POLS	2100	Introduction to International Relations	
Discipline Core Requirements:			**72 Credits**
Complete the following:			
• ECON	1740	U.S. Economic History	3
• GEOG	1300	Survey of World Geography	3
• HIST	1100	History of Civilization I	3
• HIST	1110	History of Civilization II	3
• HIST	2700	U.S. History to 1877	3
• HIST	2710	U.S. History since 1877	3
• HIST	3010	The Nature of History	3
• HIST	3260	History of Utah	3
• HIST	3860	Teaching History in the Secondary Curriculum	3
• Choose one course from each of five **Areas of Study** listed under the BA in History			15
Professional Education Courses			
• EDSC	2540	Development of the Adolescent Student	2
• EDSC	3000	Foundation Studies in Teaching and Learning	3
• EDSC	3050	Foundations of American Education	2
• EDSC	3250	Instructional Media	2
• EDSC	4200	Classroom Management I	1
• EDSC	4250	Classroom Management II	1
• EDSC	4440	Content Area Reading and Writing	3
• EDSC	4450	Multicultural Instruction/ESL	2
• EDSC	4550	Secondary Curriculum, Instruction and Assessment	4
• EDSC	4850	Student Teaching, Secondary	8
• EDSP	3400	Exceptional Students	2
Elective Requirements:			12 Credits
• Any courses numbered 1000 or higher			12

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 UVSC, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.

BA/BS IN INTEGRATED STUDIES — 123 CREDITS

The following Integrated Studies emphases are available (see the Integrated Studies section of this catalog for complete degree requirement listings):

- History
- Social Sciences

MINOR IN HISTORY — 21 CREDITS

Matriculation Requirements:

1. Successful completion of one history course at UVSC.
2. Admitted to a bachelor degree program at UVSC.

Discipline Core Requirements:			12 Credits
• HIST	1100	World Civilization I	3
• HIST	1110	World Civilization II	3
• HIST	2700	U.S. History to 1877	3
• HIST	2710	U.S. History since 1877	3
Elective Requirements:			9 Credits
• Any three upper-division history courses, except HIST 3860, HIST 499A, HIST 499B.			9

Graduation Requirements:

1. Complete all history courses with a grade of "C-" or better.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

ARCH 1100 — SS
Introduction to Archaeology
3:3:0 — F

Studies the archeological record of human behavior for the last two million years. Examines the scientific techniques used to explore and analyze the record. Investigates the ways in which our ancestors lived and the ways in which the present and future world is affected by the past. Includes field trips, films and research methods.

HIST 1100** — SS
History of Civilization I
3:3:0 — Su, F, Sp

HIST 1100, in conjunction with HIST 1110, serves as an introduction to World Civilization. Covers the development of world civilizations from 3500 B.C.E. to 1500 C.E. Concentrates on philosophies and religions as historical forces in the development of civilizations. Includes discussions based in a strong social, economic and political background. Students will analyze primary materials, through writing and discussion, in order to understand the course of history and its relevance to us more clearly.

HIST 1110** — SS
History of Civilization II
3:3:0 — Su, F, Sp

HIST 1110, in conjunction with HIST 1100, serves as an introduction to World Civilization. Focuses mainly on the Renaissance to the present. Treats science and technologies as historical forces in the development of the modern world. Analyzes how scientific knowledge has transformed our perspectives on the natural world and revolutionized modern life through the development of powerful technologies. Uses written essays and participation in seminar-style discussions to help students actively explore fundamental issues in the history of science.

HIST 1700** — AS
American Civilization
3:3:0 — Su, F, Sp

Stresses movements and developing institutions that are important for an appreciation of American History from the Pre-Colombian 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 1800 (Cross-listed as ANTH 1800) — SS
Introduction to American Indian Studies
3:3:0 — F

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.

HIST 2700** — AS
US History to 1877
3:3:0 — Su, F, Sp

Examines the first half of the American experience, beginning with the Paleo-Indian cultures through Post-Civil War Reconstruction. Surveys social, political, cultural, and diplomatic developments throughout 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 2710** — AS
US History since 1877
3:3:0 — Su, F, Sp

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 290R
Independent Study
1-4:1-4:0 On Sufficient Demand
• Prerequisite: 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 Nature of History
3:3:0 Sp, F
• Prerequisite: (ENGL 2010 or ENGL 2020), one other political science or history course and (Sophomore status or consent of instructor)
For students who may major in history, the liberal arts, or education; or who may minor in history. Uses a variety of resources to introduce historical research and writing. Examines major historiographic approaches, the philosophy of history, and historians of note. Helps prepare students to write a journal-quality article. Course rotates among faculty in the department, therefore topics and emphases will vary to include American and non-American themes.

HIST 3030
Introduction to African History
3:3:0 F
• Prerequisite: (ENGL 2010 or ENGL 2020) or consent of instructor
Surveys African history since the sixteenth century: traditional societies, the slave trade, European colonialism, the struggle for independence, underdevelopment, and the challenge of globalization.

HIST 3040
Colonial Latin America
3:3:0 F
Introduces the history of Latin America from the earliest New World inhabitants through the nineteenth-century Latin American wars for independence. Analyzes 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. Includes campus and community resources, multi-media, and guest lecturers.

HIST 3050
Modern Latin America
3:3:0 Sp
Introduces the history of Latin America from 1820 to the present. Focuses on the key issues and themes of the last 180 years including social revolution, dependency and foreign intervention, gender and race. Includes case studies from specific countries. Uses campus and community resources, multi-media, and guest lecturers.

HIST 3110
Greek History
3:3:0 F
• Prerequisite: ENGL 2010 or ENGL 2020 or permission of instructor
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 Republic
3:3:0
• Prerequisite: ENGL 2010 or ENGL 2020 or permission of instructor
Covers the development of Rome and Italy from prehistory through the end of the Republic in first century B.C. Surveys social, cultural, political, economic and military aspects of Republican Rome. Examines the influence of Rome on Western Civilization. Part of a two semester sequence on Roman history. Each semester may be taken independently.

HIST 3140
Roman Empire
3:3:0
• Prerequisite: ENGL 2010 or ENGL 2020 or permission of instructor
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
3:3:0 F
• Prerequisite: HIST 1100 or permission of instructor
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
3:3:0 F
• Prerequisite: (ENGL 2010 or ENGL 2020) or consent of instructor
Explores European history from the rise of modern Humanism, in the fourteenth century, to the religious conflicts of the sixteenth century. Studies the Italian Renaissance, the spread of Italian cultural influence throughout Europe, the European discovery of the Americas and voyages around the globe, the Protestant Reformation and Catholic Counter Reformation, and the social and economic transformations of the early modern period.

HIST 3170
Absolutism Enlightenment and Revolution—Europe from 1600 to 1815
3:3:0 Sp
• Prerequisite: (ENGL 2010 or ENGL 2020) or consent of instructor
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
3:3:0 Sp
• Prerequisite: (ENGL 2010 or ENGL 2020) or consent of instructor
Analyzes transformations in political, economic, and social ideologies of Europe in the 19th century. Studies primary documents on a variety of ideologies. Includes active class participation and discussion, and much writing in areas agreed upon between instructor and student.

HIST 3190
Twentieth Century Europe
3:3:0 F
• Prerequisite: (ENGL 2010 or ENGL 2020) or consent of instructor
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, and European Union.

HIST 3200
Women in American History to 1870
3:3:0 F
• Prerequisite: Junior standing or consent of instructor
Surveys women's experiences in American culture from the beginnings of European colonization to 1870. Emphasizes ways in which race, ethnicity, and class shaped females' experiences.

HIST 3210
Women in American History since 1870
3:3:0 Sp
• Prerequisite: Junior standing, or consent of instructor.
Surveys women's experiences in American culture from 1870 to the present. Examines major topics, questions, and theories in women's experiences.

HIST 3260
History of Utah
3:3:0 F, Sp
Surveys the history of Utah and its peoples from prehistoric times to the present. Introduces major themes in Great Basin prehistory and Indian history, Mormon history, territorial and state history, and Utah's role in the development of the West and the nation. Examines writings and research in the areas of art, anthropology, demography, geography, ethnography, folklore, gender, literature, cinematography, photography, popular culture, and religion. Can be used for teacher education and recertification requirements.

HIST 3320
Modern Britain
3:3:0 Sp
• Prerequisite: (ENGL 2010 or ENGL 2020) or consent of instructor
Surveys major themes in British history from the Glorious Revolution to the end of the 20th century.

HIST 3420 SS
History of Technology
3:3:0 Not 05-06
• Prerequisite: ENGL 2010 or ENGL 2020
For History and Technology Management students, and others with an interest in the history of technology. Surveys development of modern technology with special reference to the Industrial Revolution of the nineteenth century. Weekly case studies focus on major innovations which have shaped the modern world. Includes computer multimedia, internet exploration, field trips and guest lecturers. Completing students should better appreciate the interaction between technology and modern society.

HIST 3430
Middle East History—1914-Present
3:3:0 Sp
Surveys the political and socioeconomic history of the Middle East since the First World War. Introduces and discusses various ethnic and religious groups in the region, colonial domination of the region, the rise of nationalist movements for independence, the development of modern states, and economic features of the Arab countries, Israel, Turkey, and Iran.

HIST 3450
The History of World War II
3:3:0 F
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 3460
US Military History
3:3:0
• Prerequisite: ENGL 2010 or ENGL 2020 or permission of instructor
Examines major themes in U.S. Military History from the colonial period to the present. Studies the evolution of weapon systems, strategies, battlefield and naval tactics, military supply, and communication. Includes lecture /discussion, media presentations, guest speakers, research papers and book reviews.

HIST 3520
The United States and Vietnam—1945 to Present
3:3:0 Sp
Surveys American involvement in Vietnam from the close of World War II to the present. Explores cultural military, diplomatic, historiographical, and social influences of that war on this country. Examines the war's legacy on American politics, culture, and foreign relations. Includes lecture, class discussion, audiovisual materials, and guest speakers.

HIST 3530
History of Vietnam
3:3:0 Not 05-06
Provides a comprehensive look at the history of this important Southeast Asian nation. Covers early migrations that formed the Viet people. Includes Chinese domination, independence, French colonialism, the First and Second Indochina wars, and post-1975 developments. Examines cultural, literary, ethnic, military, nationalist, political, and economic issues.

HIST 3540
History of South Africa
3:3:0 Sp
Explores the history of South Africa from first peoples to the present, with special attention to twentieth-century developments. Topics include 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. For history and integrated studies majors, and other students interested in world history.

HIST 3610
The Modern History of East Asia
3:3:0 F
Analyzes the modern history of China, Japan and Korea, covering the last two centuries. Explores the traditional norms of the East Asian peoples up to the beginning of the nineteenth century. Demonstrates the impact of the modern West and its newly developed technology on East Asia. Presents the responses of those countries to external pressures.

HIST 3660
The History of Modern Russia—1864 to Present
3:3:0 F
Surveys the history of Russia and the Soviet Union from 1864 to the present, with special attention to Russia's politics, economics, and society.

HIST 3700
The New Nation
3:3:0 F
Provides overview of major historical processes and events in the United States from the inauguration of George Washington through the presidency of John Quincy Adams. Major topics and themes include foreign relations, territorial expansion, the development of a national government, the development of industry and changes in the workforce, the republican family, and political divisions.

HIST 3710
Reform and Crisis in Antebellum America
3:3:0 Sp
Provides overview of major historical processes and events in the United States from the end of the Jacksonian period to the beginning of the Civil War. Subjects include reform movements, abolition, women's rights, Manifest Destiny and westward expansion, the US-Mexican War, sectionalism, and contest over slavery in the territories.

HIST 3720
Colonial America
3:3:0 F
• Prerequisite: HIST 1700
Examines establishment, growth, and development of North American colonies to 1763 with emphasis on British experience. Addresses the roles of Europeans, American natives, and Africans in forming systems of trade and patterns of settlement. Studies the evolution of slavery and development of new political structures, changing religious beliefs, social values, and evolving family relationships in America.

HIST 3740
American Revolution
3:3:0 F
• Prerequisite: HIST 1700
Examines origins, progress, and consequences of the American Revolution. Focuses on social effects of the War for Independence, creation of republican governments, the U.S. Constitution. Addresses the search for stability at home and security abroad, and the development of a national identity.

HIST 3750
Civil War/Reconstruction
3:3:0 F
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 painful period of Reconstruction and its historiography.

HIST 3760
Jacksonian America
3:3:0 F
• Prerequisite: HIST 1700
Examines the dynamic and revolutionary period in America from 1816-1848. Discusses implications of a changing society, political parties, religious revivals, and reform movements. Explores the two-party system, Andrew Jackson and the new "democratic" leaders. Studies nationalism, expansionism, sectionalism, and technological advances that transformed the lives of Americans. Includes lectures, and multimedia presentations.

HIST 3770
The Rise of Industrial America
3:3:0 Sp
Provides examination of major trends in American society, economy, and politics during the Gilded Age and Progressive Period, from the end

of Reconstruction to the end of the World War I era. Topics to be considered include the rise of industrial capitalism, labor relations, immigration, the rise of American cities, the growth of American economic and military power abroad, and reform movements.

HIST 3780
America from the Jazz Age to the Atomic Age
3:3:0 F
• Prerequisite: (ENGL 2010 or ENGL 2020) or permission of instructor
Provides overview of major historical processes and events in the United States from the end of World War I to the end of World War II. Subjects include economic structures, foreign policy, race and class relations, roles and images of women, Prohibition, religion and American values, the Great Depression, the New Deal, and the American homefront during World War II.

HIST 3790
United States since 1945
3:3:0 Sp
• Prerequisite: (ENGL 2010 or ENGL 2020) or consent of instructor
Provides an overview of major themes in U.S. history from the end of World War II to the present.

HIST 3800 (Cross-listed as GEOG 3800)
Environmental History of the United States
3:3:0 Sp
• Prerequisite: HIST 1700 or (HIST 2700 and HIST 2710)
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. Explores land ethics, processes of environmental degradation, technological remedies, history of federal laws and protection agencies. May include field experiences.

HIST 3810
American Indians to 1815
3:3:0 F
Examines the development of indigenous communities in North America, emphasizing the area that would become the United States, from the first human presence on the continent to the end of the War of 1812.

HIST 3830
The Contest for Territory—American Indians and the US 1815-1891
3:3:0 Sp
Emphasizes American Indian resistance to territorial, political, and cultural dispossession by the United States from the end of the War of 1812 to the aftermath of the Wounded Knee Massacre.

HIST 3850
The Struggle for Self-determination—American Indians 1891-present
3:3:0 F
Surveys American Indian history from the Wounded Knee Massacre of 1891 to the present. Examination of how American Indians changed 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 3860
Teaching History in the Secondary Curriculum
3:3:0 F, Sp
• Prerequisite: Matriculation in the History education program, or instructor approval.
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 3870
Constitutional History to Plessy 1896
3:3:0 F
Explores, in a critical and historical framework, US Constitutional History to Plessy (1896). Examines the origins and general principles of Constitutional thought (Coke, Montesquieu, Sidney, etc.), and the Colonial, Confederate, and Constitutional periods of early US history (including the Marshall Court's advancement of the doctrine's of judicial review and national supremacy.) Concludes by examining the various Constitutional issues relating to slavery, secession, civil war, and laissez-faire governmental policies.

HIST 3880
Constitutional History since Plessy 1896
3:3:0 Sp
Explores, in a critical and historical framework, US Constitutional History since Plessy (1896). Examines the development of US Constitutional thought from the late Nineteenth Century to the present Rehnquist Court, with special attention being given to the progressive era, the New Deal, liberal constitutionalism, and the Court's modern interpretations of Civil Rights and Civil Liberties.

HIST 4100
Jewish History
3:3:0 Sp
Surveys the history of the Jewish people from the Biblical period to the present. Analyzes Jewish cultural and religious contributions to world history. Examines religious and political Zionism leading to the establishment of the State of Israel.

HIST 4130
Anti-Semitism and the Holocaust
3:3:0 Sp
Prerequisite: (ENGL 2010 or ENGL 2020) or consent of instructor
Analyzes the rise of "advanced" anti-semitism in the late 19th and early 20th century and the factors that contributed to the mass destruction of Jews. Also analyzes how the same racial ideas that furthered anti-semitism were used against Gypsies, Slavs, and other "subhumans." Students take part in active discussions and oral presentations, and will write analytical papers on topics of their choosing.

HIST 420R
Issues and Topics in Global History
3:3:0 On Sufficient Demand
Surveys a specific topic in Global History. Topic varies each semester. A maximum of 6 credits may be applied toward graduation.

HIST 4300
Violence and Social Conflict in Latin America
3:3:0 On Sufficient Demand
• Prerequisite: Junior standing or consent of instructor
Examines impact of violence and social conflict in Latin American society. Covers from Ancient Native American cultures to the present.

HIST 4320 SS
History of Scientific Thought
3:3:0 F
Explores development of Western scientific context from 6th century B.C. Greece to modern times. Emphasizes how our understanding of nature is influenced by a scientific approach. Examines technological impact of science on our lives.

HIST 4430
History of Iran—1900 to Present
3:3:0 Sp
Covers the Constitutional Revolution of 1905-1911, the rise of Reza Shah Pahlavi in 1921-1941, the democratic movement under the leadership of Dr. Mossadegh (1949-1953), the CIA coup in August 1953 and the restoration of autocratic rule (1953-1979), the Iranian Revolution of 1979, the rise and consolidation of fundamentalist rule under the leadership of Ayatollah Khomeini, and finally the resistance to fundamentalist rule.

HIST 4600
Contemporary American Indian Political and Social Issues
3:3:0 Sp
Surveys current research and perspectives on historical and contemporary American Indian issues. Utilizes a seminar approach in which each student will prepare summaries of books and articles to be distributed to the other class members. Includes identity, political activism, historiography, health, political and cultural issues.

HIST 4620
History of the American West
3:3:0 Sp
• Prerequisite: Junior standing or consent of instructor
Surveys American Western History from early European colonization to the present. Emphasizes the diverse experiences of peoples in the West and the changing boundaries of the West.

HIST 471R
Special Issues and Topics in American History
3:3:0 On Sufficient Demand
• Prerequisite: Junior standing or consent of instructor
Surveys a specific topic in American History. Topic varies each semester. May be repeated once for credit as long as course topic is substantially different than previous class.

HIST 490R
Independent Study
1-4:1-4:0 On Sufficient Demand
• Prerequisite: 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 upper-division level. A maximum of six credits may be applied toward graduation.

HIST 499A
Senior Research Thesis-Research Component
2:2:0 F
• Prerequisite: Senior standing, HIST 3010, or consent of instructor
Serves as the first half of the capstone experience for History majors. Work together with (usually) one instructor in a directed research and writing project. Selected thesis topic by the student with consultation with the instructor. Requires student contact with advisor beginning of senior year to make arrangements to begin course. Builds on skills and knowledge gained in earlier courses, using research skills in primary and secondary sources, critical thinking, historiographic analysis, and comparative History.

HIST 499B
Senior Research Thesis-Writing Component
2:2:0 Sp
• Prerequisite: HIST 499A or consent of instructor
Serves as the second half of the capstone experience for History majors. Continues the research begun in HIST 499A. Builds on skills and knowledge gained in earlier courses, using research skills in primary and secondary sources, critical thinking, historiographic analysis, and comparative History. Defending the paper's thesis, method, and conclusion before a committee of three faculty is required.

HONORS PROGRAM

Director

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Faculty: Selected from among departmental faculty to meet program/course needs.

Advisory and Planning Committee: JaNae Brown Haas, Larry Harper, Steve Revelli, Jim Harris.

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PROGRAM

The Honors Program is designed for students seeking an intellectual challenge and an enriching curriculum from both student and faculty perspectives. The emphasis is on academic development based on small, interactive group experiences and includes a series of stimulating social, cultural, and service opportunities. Honors courses stress analysis through intensive writing, discussion and reading.

Beginning Fall 2006 UVSC will launch a revised and expanded Honors Program including a residential living component, leadership opportunities, and numerous means of recognition to continue to build a tradition of excellence. This will signal a commitment to building a critical mass of diverse students and offering a program that rewards individual achievement at the same time it builds a fully developed cohort. Such a cohort will include students from a wide cross-section of academic disciplines and enhance the educational experience of honors students, as well as the student body at large, and will have important impacts on the college, local, and national community.

Admission and Participation

Requirements are intended to be flexible at entrance, but rigorous for retention in and completion of the program. All applicants will be considered on an individual basis. For detailed application and qualification information, contact the Program Director.

Graduation Criteria

To receive distinction as an Honors Program graduate, the student must meet the following criteria:

1. Be admitted to the Honors Program
2. Complete no less than four Honors Program classes
3. Attain a cumulative GPA of no less than 3.5
4. Complete an honors thesis*
5. Complete College requirements for graduation
6. Receive approval from the Program Director

*The thesis subject must be approved in advance by the Program Director.

Curriculum

Honors sections offered from each department will be identified by the letter "H" in the fourth position of the course number in the college class schedule. Courses will be selected and presented to fill student needs and requests.

The following pages list honors courses approved at time of printing. Contact program director for additional course offerings.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

BIOL 101H BB
General Biology†
3:3:0 F, Sp
- Prerequisite: None, however an assessment DRP score of at least 77 is strongly recommended
- Corequisite: BIOL 1015

Encourages students to understand and link concepts related to metabolism, photosynthesis, evolution, ecology, patterns of inheritance and genetics, human disease, physiology and organ systems, biological diversity, and environmental issues. Writing is emphasized in the course, including a term paper on a relevant and timely biological topic, as well as essay examinations.

ENGL 101H CC
Introduction to Writing
3:3:0 F, Sp
- Prerequisite: COMPASS Writing/DRP scores of 80+/77+, or ACT English/ACT Reading scores of 19+/19+, or completion of ENGH 0990 and CTRS 1170 each with a grade of "C-" or higher, or appropriate placement scores, or challenge by essay assessment for a $20 fee

Emphasizes, in writing intensive workshops, rhetorical knowledge and skills. Teaches critical reading, writing, and thinking skills. Explores writing situations as complex and recursive processes. Enhances basic literacies, addressing both rhetorical problems and conventions of language use (within the context of Standard Written English). Three major essays with graded revision(s), microthemes, in-class writing and collaboration, portfolios, and journals.

ENGL 201H CC
Intermediate Writing—Humanities/Social Sciences
3:3:0 F, Sp
- Prerequisite: ENGL 101H or ENGL 1010 with a C- or better

Explores interfaces between the personal and the public and invokes problems for exploration. Emphasizes the production of well-reasoned and carefully researched written arguments that embody the spirit of inquiry, explore and interrogate multiple perspectives, and negotiate meanings across a diverse array of positions. Three major research projects (with at least one mandatory, graded revision), annotated bibliography, oral presentations, portfolios, journals, in-class writing, and collaboration.

ENGL 202H CC
Intermediate Writing—Science and Technology
3:3:0 F, Sp
- Prerequisite: ENGL 101H (C- or better)

Explores public issues involving science and technology. Invokes problems for exploration. Emphasizes the production of well-reasoned and carefully researched written arguments that inquire, interrogate, and negotiate meanings across a diverse array of positions and in a variety of contexts, including writing about science and technology issues, and technical and/or professional documents. Includes at least one major research project (possibly more), annotated bibliography and/or appendices, oral presentations (individual and/or group), portfolios,

in-class writing, and collaboration. May include basic requirements for professional and technical documents (memos, letters, reports, and more).

ENGL 225H HH
Creative Process and Imaginative Writing
3:3:0 F, Sp
Studies different literary genres — fiction, poetry, drama, personal, and expository essay through lecture, discussion, and presentation of student's own work. NOTE: This course does not replace any English composition courses for the AS/AA and AAS degrees.

ENGL 230H HH
Shakespeare
3:3:0
For General Education students and English majors. Introduces several Shakespeare plays with particular attention to analysis and critical evaluation 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.

GEO 101H PP
Introduction to Geology
3:3:0 F, Sp
Studies the structural and dynamic systems of the earth that create our environment. Stresses geology and related topics chosen for astronomy and meteorology.

GEO 102H
Introduction to Geology Laboratory
1:0:2 F, Sp
Includes identification of basic land forms and structures. Studies the geologic processes occurring in desert, glacial, mountains, and other environments. Includes an extended outdoor activity to the Grand Canyon or Capital Reef National Park.

HIST 170H AS
American Civilization
3:3:0 F, Sp
Stresses movements and developing institutions that are important for an appreciation of American History from the Pre-Colombian 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 110H SS
History of Civilization I
3:3:0 F
HIST 110H, in conjunction with HIST 111H, serves as an introduction to World Civilization. Covers the development of world civilizations from 3500 B.C. to A.D. 1500. Concentrates on philosophies and religions as historical forces in the development of civilizations. Includes discussions based in a strong social, economic, and political background. Students will analyze primary materials, through writing and discussion, in order to understand the course of history and its relevance to us more clearly.

HIST 111H SS
History of Civilization II
3:3:0 Sp
HIST 111H, in conjunction with HIST 110H, serves as an introduction to World Civilization. Focuses mainly on the Renaissance to the present. Treats science and technologies as historical forces in the development of the modern world. Analyzes how scientific knowledge has transformed our perspectives on the natural world and revolutionized modern life through the development of powerful technologies. Uses written essays and participation in seminar-style discussions to help students actively explore fundamental issues in the history of science.

HIST 270H AS
U.S. History to 1877
3:3:0 On Sufficient Demand
Examines the first half of the American experience, beginning with the Paleo-Indian cultures through Post-Civil War Reconstruction. Surveys social, political, cultural, and diplomatic developments throughout 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 AS
U.S. History since 1877
3:3:0 On Sufficient Demand
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
1:1:0 On Sufficient Demand
• Prerequisite: 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.

HUM 101H HH
Humanities Through the Arts
3:3:0 F, Sp
Study of the arts emphasizing forms and relationships, the development of critical skills, and awareness of traditional humanistic values. Analyzes the arts, such as literature, painting, sculpture, architecture, music, dance, theatre; and their mediums, elements, and organization. For students filling transfer or vocational humanities requirements and for community members interested in broadening cultural appreciation.

MATH 121H MM
Calculus I
5:5:0 F, Sp
• Prerequisite: One of the following: MATH 1050 and MATH 1060, each with a grade of C or better; MATH 1065 with a grade of C or better; recommended placement by the COMPASS test
Includes limits and continuity, differentiation, applications of differentiation, integration, applications of integration, derivatives of the exponential functions, logarithmic functions, inverse trigonometric functions, hyperbolic functions, and related integrals. Prerequisite for calculus-based sciences.

MATH 122H MM
Calculus II
5:5:0 F, Sp
• Prerequisite: MATH 1210 with a grade of C or better
Includes arc length, area of a surface of revolution, moments and centers of mass, integration techniques, sequences and series, parametrization of curves, polar coordinates, vectors in 3-space, quadric surfaces, and cylindrical and spherical coordinates. Prerequisite for calculus-based sciences.

MATH 221H MM
Calculus III
3:3:0
• Prerequisite: MATH 1220 with a grade of C or better
Includes partial derivatives, gradient vectors, Lagrange multipliers, multiple integrals, line integrals, Green's Theorem, surface integrals, the Divergence Theorem, and Stokes' Theorem.

MGMT 220H GC
Written Business Communication
3:3:0 On Sufficient Demand
• Prerequisite: (MGMT 1200 with a grade of C- or higher or equivalent knowledge) and (ISYS 1050 or business computer proficiency or basic word processing skill)
Teaches written correspondence and business reports using direct and indirect approaches. Emphasizes basic language utilization. Includes application of communication principles to business writing situations. Requires completion of a formal research document.

MGMT 297H
Honors Seminar in Leadership Development
3:3:0 Sp
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 497H
Business Honors Seminar
1-3:1-3:0 On Sufficient Demand
• Prerequisite: Permission required; 3.4 GPA or higher; senior status
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.

PHIL 100H
Introduction to Philosophy
3:3:0
• Prerequisite: ENGL 1010
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 205H IH
Ethics and Values†
3:3:0 F, Sp
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.

PHYS 107H PP
Cultural Astronomy in Our Lives
3:3:0 F, Sp
• Corequisite: PHYS 1075
For those interested in learning about the astronomical realm around us and those having a special interest in anthropology. 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 UVSC planetarium, nighttime observation, illustrated lectures, and class discussion.

PHYS 1075
Honors Cultural Astronomy in Our Lives Laboratory
1:0:3 F, Sp
• Prerequisite: Instructor permission required
• Corequisite: PHYS 107H
Studies ancient southwestern native astronomy in correlation with modern astronomy. Includes a four day trip to Hovenweep, Chaco Canyon, and Mesa Verde Anasazi sites.

PSY 101H SS
General Psychology
3:3:0 F, Sp
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.

SOC 101H SS
Introduction to Sociology
3:3:0 F
Studies and compares social groups and institutions and their inter-relationships. Includes culture, socialization, deviance, stratification, race, ethnicity, social change, and collective behavior.

SOSC 291H GS
National Honors Study Topic
3:3:0 Sp
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.

ZOOL 232H BB
Human Anatomy
4:3:3 F, Sp
• Prerequisite: 1. BIOL 1010 (or BIOL 1610), ENGL 1010 or 2. assessment exam scores of: Reading DRP 85 or higher, English Writing skills 80 or higher, Pre-algebra 70 or higher, Algebra 31 or higher or 3. Written permission of the anatomy program coordinator.
• Corequisite: ZOOL 2320 laboratory section; at least one semester of college level experience is highly recommended
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.

ZOOL 242H
Human Physiology
4:3:3 F, Sp
• Prerequisite: 1. BIOL 1010 (or BIOL 1610), CHEM 1110, written permission of the physiology program coordinator.
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.

HOSPITALITY MANAGEMENT

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CAREER OPPORTUNITIES

The Hospitality Management program offers a Bachelor of Science in Hospitality Management with a track in Hotel/Restaurant Management for students interested in management positions in the hospitality industry. The demand for management staff in this industry is high, particularly for those with specialized hospitality management skills.

The Hospitality Management program prepares graduates for employment in one of the fastest growing segments of the nation's economy. The addition of several new convention centers in the state have dramatically increased the need for hotel and restaurant facilities. Students are marketable in 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.

The Hospitality Management program also offers a Bachelor of Science in Hospitality Management with a track in Food and Beverage Management for students interested in food production management. This track is ideal for those training to be executive chefs, restaurant production managers, institutional food service or restaurant managers. The demand for management staff in the restaurant industry is high, particularly for those with culinary skills. The students will be required to have a minimum of 15 credit hours in Culinary Arts courses to complete this track.

* See Culinary Arts Institute section of this catalog for program and course offerings in Culinary Arts.

PROGRAMS

Three options are available: Associate in Applied Science Degree (the only CAHM accredited program in the state of Utah); Associate in Science Degree; and Bachelor of Science Degree in Hospitality Management.

AAS IN HOSPITALITY MANAGEMENT — 64 CREDITS

General Education Requirements:			**19 Credits**
ENGLISH			
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing: Humanities/ Social Science	3
QUANTITATIVE LITERACY			
• MAT	1010	Intermediate Algebra	3
or Any higher Mathematics Course			
or Any approved Departmental Mathematics Course			
HUMANITIES/FINE ARTS/FOREIGN LANGUAGE			
• Ethics and Values (PHIL 2050 recommended)			3
or Any approved Humanities, Fine Arts, or Foreign Language Distribution Course			
SOCIAL AND BEHAVIORAL SCIENCE			
• Any approved Behavioral Science, Social, or Political 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:			**39 Credits**
• HM	1010	Introduction to the Hospitality Industry	3
• HM	1110	Food Production Principles	3
• HM	1130	Hotel Operations I	3
• HM	1180	Food and Beverage Management	3
• HM	281R	Coop Work Experience	4
• HM	3020	Hospitality Managerial Accounting	4
• HM	3390	Hotel Operations II	3
• HM	3640	Food and Beverage Controls	3
• ACC	2010	Financial Accounting	3
• ISYS	1050	Basic Computer Applications*	3
or Business Computer Proficiency Exam*			
• MGMT	2200	Written Business Communication	3
• MGMT	2250	Job Application and Advancement Skills	1
or MGMT	3890	Career Preparation	
• ECON	1010	Economics as a Social Science	3
Elective Requirements:			**6 Credits**
• Six hours of elective credits from HM courses.			6

Graduation Requirements:
1. Completion of a minimum of 64 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade below a "C-" in hospitality or other School of Business courses.

AAS IN HOSPITALITY MANAGEMENT (CON'T) — 64 CREDITS

3. Residency hours: minimum of 20 credit hours through course attendance at UVSC; at least 16 credits must be in School of Business courses.
4. Completion of GE and specified departmental requirements.

Notes:
Students are responsible for completing all prerequisite courses.
*Students will be required to complete the business computer proficiency exam with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher on each module.

AS PRE MAJOR IN HOSPITALITY MANAGEMENT — 60 CREDITS

General Education Requirements:			**36 Credits**
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing: Humanities/ Social Science	
or ENGL	2020	Intermediate Writing: Science/ Technology	3
Complete one of the following:			
• MATH	1050	College Algebra	4
or An Advanced Placement (AP) Mathematics Test with a score of 3 or higher			
Complete one of the following:			3
• HIST	1700	American Civilization	
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health & Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses			
• Biology			3
• Physical Science			3
• Additional Biology or Physical Science			3
• Humanities Distribution (COMM 1100 recommended)			3
• Fine Arts Distribution			3
• MGMT	2020	Macroeconomics (fulfills Social/ Behavioral Science requirement)	3
Discipline Core Requirements:			**18 Credits**
• ACC	2010	Financial Accounting	3
• HM	1010	Introduction to Hospitality	3
• HM	1130	Hotel Operations I	3
• HM	1180	Food and Beverage Management	3
• Business Computer Proficiency Exam*			
or ISYS	1050	Basic Computer Applications*	3
• MGMT	2200	Written Business Communication	3
• MGMT	2390	Effective Business Presentations	3
Elective Requirements:			**6 Credits**
• Complete six hours of elective credits from HM courses			6

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 School of Business courses.
3. Residency hours: minimum of 20 credit hours through course attendance at UVSC; at least 16 credits must be in School of Business courses.
4. Completion of GE and specified departmental requirements.

Note:
Students are responsible for completing all prerequisite courses.
*Students will be required to complete the business computer proficiency exam with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher.

BS IN BUSINESS MANAGEMENT WITH AN EMPHASIS IN HOSPITALITY MANAGEMENT — 122 CREDITS

General Education Requirements:			**36 Credits**
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing: Humanities/ Social Science	
or ENGL	2020	Intermediate Writing: Science/ Technology	3
• MATH	1050	College Algebra	4

BS IN BUSINESS MANAGEMENT
WITH AN EMPHASIS IN
HOSPITALITY MANAGEMENT (CON'T) 122 CREDITS

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

Complete one of the following: 3
- HIST 1700 American Civilization
- HIST 2700 US History to 1877

and HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness

or PES 1097 Fitness for Life 2

Distribution Courses
- MGMT 2020 Macroeconomics (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: 49 Credits

Business Foundation Courses:
- ACC 2010 Financial Accounting 3
- ACC 2020 Managerial Accounting 3
- Business Computer Proficiency Exam**

or ISYS 1050 Basic Computer Applications** 3
- MATH 1100 Introduction to Calculus 4
- MGMT 2010 Microeconomics 3
- MGMT 2200 Written Business Communication 3
- MGMT 2340 Business Statistical Applications 3
- MGMT 2390 Effective Business Presentations 3

Business Core Courses:
- ISYS 3120 Principles of Information Systems: A Managerial Approach 3
- LEGL 3000 Business Law 3
- MGMT 3010 Principles of Management 3
- MGMT 3100 Principles of Finance* 3
- MGMT 3450 Operations Management* 3
- MGMT 3600 Principles of Marketing 3
- MGMT 3890 Career Preparation 2
- MGMT 4800 Strategic Management* 3
- MGMT 495R Executive Lecture Series 1

or MGMT 493R Entrepreneurship Lecture Series

Specialty Core Requirements: 27 Credits
- MGMT 3300 Survey of International Business 3
- MGMT 3200 Global Tourism 3
- HM 3020 Hospitality Managerial Accounting 3
- HM 3390 Hotel Operations II 3
- HM 3640 Food & Beverage Control 3
- HM 3710 Marketing Hospitality Services 3
- HM 4550 Hospitality Industry Management 3
- HM 482R Internship 6

Discipline Elective Requirements: 10 Credits
- Complete 10 credits of General Education courses 10

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 School of Business courses. No grade lower than a "C-" in core and specialization courses.
3. Residency hours: Minimum of 30 credit hours of School of Business courses through course attendance at UVSC, 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.

*Courses with an asterisk (*) cannot be taken until student is matriculated.

**Students will be required to complete the business computer proficiency exam with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher in each of the six modules.

BS IN
HOSPITALITY MANAGEMENT 120 CREDITS

General Education Requirements: 37 Credits
- ENGL 1010 Introduction to Writing 3
- ENGL 2010 Intermediate Writing: Humanities/ Social Science 3

or ENGL 2020 Intermediate Writing: Science/ Technology

BS IN
HOSPITALITY MANAGEMENT (CON'T) 120 CREDITS

- MATH 1050 College Algebra 4

Complete one of the following: 3
- HIST 1700 American Civilization
- HIST 2700 US History to 1877

and HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness

or PES 1097 Fitness for Life 2

Distribution Courses
- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution 3
- Fine Arts Distribution 3
- MGMT 2020 Macroeconomics 3

Discipline Core Requirements: 71 Credits
- HM 1010 Introduction to Hospitality Industry 3
- HM 1130 Hotel Operations I 3
- HM 1180 Food and Beverage Management 3
- HM 3020 Hospitality Managerial Accounting 4
- HM 3150 Hospitality Finance 3
- HM 3390 Hotel Operations II 3
- HM 3640 Food and Beverage Controls 3
- HM 3710 Marketing of Hospitality Services 3
- HM 4550 Hospitality Industry Management 3
- HM 482R Internship 6
- ACC 2010 Financial Accounting 3
- LEGL 3100 Hospitality Law 3
- MGMT 2200 Written Business Communication 3
- MGMT 2240 Foundations of Business Statistics 3
- MGMT 2250 Job Application and Advancement Skills 1

or MGMT 3890 Career Preparation
- MGMT 2390 Effective Business Presentations 3
- MGMT 3000 Organizational Behavior 3
- MGMT 4220 Management Communication* (spring only) 3

Complete one of the following two groups: 15

Foreign Language Group: Complete the following levels of the same language
- 1010 Beginning _____ I
- 1020 Beginning _____ II
- 2010 Intermediate _____ I

Additional GE Electives Group
- 1010 Beginning _____ I (foreign language)
- MGMT 2340 Business Statistical Applications
- Non-Business Elective

Elective Requirements: 13-15 Credits

Complete one of the following two groups: 13-15

Hotel and Restaurant Management Track:
- HM 1110 Food Production Principles (3)
- Complete six hours of electives from HM, ACC, ISYS, LEGL, or MGMT courses 3000-level or higher. (6)
- Complete four credits of general education courses (4)

Food and Beverage Track:
- CA 1110 Culinary Skill Development (9)
- CA 481R Cooperative Work Experience (6)

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 of 2.0 or above with a minimum 2.5 GPA in all School of Business courses; no grade below a "C-" in hospitality or other School of Business courses.
3. Residency hours: Minimum of 30 credit hours of business courses through course attendance at UVSC, 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.

Notes:
Students are responsible for completing all prerequisite courses.
* Matriculation competencies must be completed before enrolling in courses followed by an asterisk(*).

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

HM 1010
Introduction to Hospitality Industry
3:3:0 F, Sp

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.

HM 1110
Food Production Principles
3:3:1 F, Sp

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.

HM 1130
Hotel Operations I
3:3:0 F, Sp

Designed for hospitality management majors and as elective credit for other business majors. Presents a systematic approach to front office procedures by detailing the flow of business through a hotel beginning with the reservation process and ending with check-out settlement. Examines various elements of effective front office management, paying particular attention to planning and evaluating front office operation and to personnel management. Front office procedures and management are placed within the context of the overall operation of a hotel. Includes role play and computer simulations. Completers should be competent to be a beginning front desk clerk.

HM 1180
Food and Beverage Management
3:3:0 F, Sp

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, field trip and project. Completers should understand the basic structure of a hospitality unit and how management principles relate to a restaurant.

HM 281R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: 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.

HM 2890
Industrial Work Experience
1-8:0:5-40 Su, F, Sp
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 290R
Independent Study
1-3:1-3:0 On Sufficient Demand
Designed for hospitality management majors as elective credit. Independent study as directed in reading, individual projects, etc., at the discretion and approval of the instructor. Completers should receive specialized knowledge in a particular field of study.

HM 296R
Hospitality Management Seminar
1-3:1-3:0 On Sufficient Demand
• Prerequisite: 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
1-3:1-3:0 On Sufficient Demand
• Prerequisite: 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 3 credits.

HM 3020
Hospitality Managerial Accounting
4:4:0 F
• Prerequisite: ACC 2010
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. Methods include lecture and computer simulation. Completers should have a basic understanding of control functions within a hospitality unit and be familiar with computer control systems.

HM 3050
Country Club Management
3:3:0 On Sufficient Demand
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 a knowledge of career opportunities and basic hospitality management principles.

HM 3150
Hospitality Finance
3:3:0 Sp
• Prerequisite: HM 3020
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.

HM 3200 (Cross-listed as MGMT 3200)
Global Tourism
3:3:0 F
• Prerequisite: MGMT 2200 or ENGL 2010 or ENGL 2020
Studies the history and future of tourism, the impacts (environment, culture, economy) of tourism, and tourist behavior. Includes lectures, case studies, field trips, and guest speakers. Completers should be sophisticated travelers and understand the nature of the world's largest industry and its impacts on society and national economies.

HM 3390
Hotel Operations II
3:3:0 F
• Prerequisite: HM 1130
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. Completers should have a basic understanding of housekeeping and facility management.

HM 3640
Food and Beverage Controls
3:3:0 F, Sp
• Prerequisite: ACC 2010
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. Completers should have a basic understanding of control functions within a hospitality unit and be familiar with computer control systems.

HM 3710
Marketing of Hospitality Services
3:3:0 Sp
• Prerequisite: MGMT 2200
For hospitality management majors and as elective credit for other business majors. 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. Completers should be able to develop a marketing study of hospitality unit and understand marketing and sales techniques.

HM 4550
Hospitality Industry Management
3:3:0 Sp
• Prerequisite: HM 3710 and Matriculation into Business Management Bachelor's Degree Program or Hospitality Management Bachelor's Degree Program
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.

HM 4750
Etiquette for Golf and Business
1:1:1 On Sufficient Demand
Examines the development of etiquette skills in dealing with situations in business, dining, and golf. Includes lectures and participation in a luncheon, a formal dinner, a reception, and two rounds of golf. Completers should have a better knowledge of the importance of proper business etiquette.

HM 481R
Cooperative Work Experience
2-8:0:10-40 Su, F, Sp
• Prerequisite: Approval of School of Business Career and Corporate Manager
For Bachelor of Science Degree students in Business Management or Hospitality Management. Provides opportunities to apply classroom theory on the job. Students work as 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. Three

credits may be applied toward a Bachelor of Science degree in Business Management; six credits may be applied to the Hospitality Management degree. Course will be graded credit or no-credit.

HM 482R
Internship
2-8:0:10-40 Su, F, Sp
• Prerequisite: Approval of School of Business Career and Corporate Manager
For students working towards a Bachelor of Science Degree in Hospitality Management and the Business Management degree with the Hospitality emphasis. Provides a transition from school to work where learned theory is applied to actual practice through a meaningful on-the-job, non-paid experience commensurate with upper-division classroom instruction. Six hours of Internship work experience will be required toward graduation in the Hospitality Management emphasis.

HM 496R
Hospitality Management Seminar
1-3:1-3:0 On Sufficient Demand
• Prerequisite: Instructor/Department Chair Approval
Provides short courses, workshops, and special programs in hospitality management. Repeatable for up to three credits.

HM 497R
Independent Study
1-3:1-3:0 On Sufficient Demand
• Prerequisite: Department Chair Approval
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 at the discretion and approval of the department chair.

HUMANITIES

Department of Philosophy and Humanities

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Faculty:
Professor
Steve Bule
Eberhard Lehnardt
Assistant Professor
Nancy Rushforth
Visiting Scholar
Alex Caldiero

School of Humanities, Arts, and Social Sciences

Dean: William W. Cobb, Jr.
Office: LA 209d
Telephone: 801-863-7435

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.

These courses may be used to fulfill humanities requirements for Associate in Science, Associate in Arts, and Associate in Applied Science degrees. In addition to the requirements for the Humanities Distribution requirements, students may fulfill the Optional Requirements portion of the AA/AS degrees with a Humanities emphasis by completing 28 additional Humanities credits.

PROGRAM

AA PRE MAJOR IN HUMANITIES — 60 CREDITS

General Education Requirements:	**35 Credits**
• Complete General Education requirements as detailed in the General Education section of this catalog.	
Discipline Core Requirements:	**15 Credits**
• HUM 1010 Introduction to Humanities	3
• HUM 2010 Arts in World Culture I	3
• HUM 2020 Arts in World Culture II	3
• HUM 292R Topics in Humanities	3

AA PRE MAJOR IN HUMANITIES (CON'T) 60 CREDITS

• Any AVC, ENGL, HUM, MUSC, PHIL, THEA (1000 level or higher)	3
Elective Requirements:	**10 Credits**
• Same Foreign Language	10

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 course attendance at UVSC.
4 Completion of GE and specified departmental requirements.
5 For the AA degree, completion of 10 credit hours of course work from one language.

AS PRE MAJORS IN HUMANITIES — 62 CREDITS

General Education Requirements:	**35 Credits**
• Complete General Education requirements as detailed in the General Education section of this catalog.	
Discipline Core Requirements:	**21 Credits**
• HUM 1010 Introduction to Humanities	3
• HUM 2010 Arts in World Culture I	3
• HUM 2020 Arts in World Culture II	3
• HUM 292R Topics in Humanities	3
• Any AVC, ENGL, HUM, MUSC, PHIL, THEA (1000 level or higher)	9
Elective Requirements:	**6 Credits**
• Complete any course 1000 or higher	6

Graduation Requirements:
1 Completion of a minimum of 62 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 course attendance at UVSC.
4 Completion of GE and specified departmental requirements.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

HUM 1010 — HH
Humanities Through the Arts
3:3:0 — Su, F, Sp
Study of the arts emphasizing forms and relationships, the development of critical skills, and awareness of traditional humanistic values. Analyzes the arts, such as literature, painting, sculpture, architecture, music, dance, theatre; and their mediums, elements, and organization. For students filling transfer or vocational humanities requirements and for community members interested in broadening cultural appreciation.

HUM 2010 — HH
Arts in Humanistic Traditions I
3:3:0 — F, Sp
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
Arts in Humanistic Traditions II
3:3:0 — F, Sp
The second of a two-part series which examines world civilizations through the arts. Studies societies from 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 other have dealt with problems that humans face in the past, and possible strategies for problem solving that might aid students today.

HUM 281R
Cooperative Work Experience
2-9:1:5-40 — Su, F, Sp
• Prerequisite: Approval of Cooperative Coordinator
Designed for Humanities pre-major students. Credit is earned through paid work experiences in humanities. Students are responsible for obtaining their own employment situations. Students meet weekly with their Cooperative Instructor to cover course objectives and also set individualized objectives. Credit is determined by the number of hours a student works during the semester.

HUM 290R — GH
Independent Study
1-3:0-3:0-12 — Su, F, Sp
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 292R
Topics in Humanities
1-3:1-3:0 — F, Sp
• Prerequisite: HUM 1010
Covers various subjects, time periods, cultures, and other topics related directly to the humanities. Some possible courses include: Renaissance Humanities and Dada/Surrealist Arts, "The Arts of the Beat Generation": Hip Humanities in America from 1945 through the 60's and beyond. This course will treat the wide and rich range of a generation of artists that have permanently shaped American culture. These include poets, musicians, filmmakers, painters, sculptors, and writers. May be repeated for a maximum of six credits toward graduation. Same topic may not be repeated for additional credit.

HUM 295R — GH
Directed Readings
1-3:0-3:0-12 — F, Sp
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 3800 (Cross-listed as PHIL 3800)
Introduction to Aesthetics
3:3:0 **Sp**
• Prerequisite: PHIL 2050 or PHIL 205H and HUM 1010
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 perspective of philosophers such as Plato, Aristotle, Kant, Hume, Dewey, Danto, Bell, Collingwood, Thoreau, and Dickie.

INTEGRATED STUDIES

Program Director: Scott Abbott

Office: LA 109d
Telephone: 801-863-8537

Faculty:

Professor
- Scott Abbott
- Laurelyn Whitt

Associate Professor
- Alan Clarke
- Mark Jefferys

Assistant Professor
- Nancy Rushforth

Advisor: Lynne Hetzel
Office: LA 109f
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School of General Academics

Dean: Bonnie G. Henrie
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Associate Dean: K.D. Taylor
Office: LA 210e
Telephone: 801-863-8949
Assistant Dean: Lisa Lambert
Office: LA 210d
Telephone: 801-863-8741
Administrative Assistant: Frankie Jensen
Office: LA 210
Telephone: 801-863-6312

CAREER OPPORTUNITIES

For those completing the Bachelor Degree in Integrated Studies (IS), many opportunities exist for advanced and professional degrees and in the business environment. Employers seek students with skills gained from liberal arts programs like Integrated Studies. These skills include the ability to comprehend diverse material, to write clearly, to think critically, to work cooperatively, and to become adept at problem solving.

CURRICULUM

The individualized nature of the Integrated Studies degree is attractive to students with multiple interests who want to develop skills that are relevant to a variety of careers. Students integrate course work in emphases such as science, business, health, literature, languages, communication, philosophy, behavioral science, social science and the arts. Pre-majors from computer science and information systems, accounting, technology and trades and physical education are also offered as part of this degree.

SUMMARY OF THE DEGREE

- Meet with advisor to plan course work. (Various pre-majors may require specific courses and minimum grades.) 2.5 GPA required for application.
- Apply to the Integrated Studies program. (Upon entering the program the student will choose a faculty committee comprised of one faculty member from each of the student's pre-majors.)
- Become matriculated into Integrated Studies by submitting academic plan which must be signed by department advisors and Integrated Studies commitee.
- Complete two approved 18-hour pre-major from the following schools: Business; Computing, Engineering and Technology; Science and Health; or Humanities, Arts and Social Sciences. It is recommended that emphases be selected from diverse departments.
- Complete the Integrated Studies Discipline Core with a minimum grade of C- in each class.
- Complete forty hours of upper division course work.
- Complete thirty hours of course work in residency at UVSC; at least 10 of these must be completed at UVSC within the last 45 credit hours earned.
- For a Bachelor of Arts degree in programs offering the degree, students must complete the 2020 class (or any other Humanities distribution course if the language requirement has been met) in the chosen foreign language. For a Bachelor of Science degree, students must complete either MATH 1210 or MATH 2040.

PROGRAMS

AA/AS PRE MAJOR IN INTEGRATED STUDIES — 60 CREDITS

General Education Requirements: 35 Credits
- Complete General Education requirements as detailed in the General Education section of this catalog.

Discipline Core Requirements: 25 Credits
- For AS degree: Any course 1000 or higher — 25
- **or** For AA degree: Any course 1000 or higher (if planning to complete a BA degree, see advisor for list of recommended courses) — 15
- **and** One Language (other than English) to include the 1010, 1020, 2010, 2020 levels, or transferred equivalents — 10

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 UVSC.
4. Completion of GE and specified departmental requirements.
5. For the AA degree, completion of 10 credit hours of course work from one language.

BA IN INTEGRATED STUDIES — 123 CREDITS

Matriculation Requirements:
1. An associate of arts or associate of science degree, or
2. Junior status in college with approximately 60 credits.
3. 2.5 GPA minimum

General Education Requirements: 35 Credits
- ENGL 1010 Introduction to Writing — 3
- ENGL 2010 Intermediate Writing—Humanities/Social Science
- **or** ENGL 2020 Intermediate Writing—Science and Technology — 3

Complete one of the following: 3
- MATH 1030 Quantitative Reasoning (recommended for Humanities or Arts majors)

BA IN INTEGRATED STUDIES (CON'T) — 123 CREDITS

- MATH 1040 Introduction to Statistics (recommended for Social Science majors)
- MATH 1050 College Algebra (recommended for Business, Education, Science, and Health Professions majors)

Complete one of the following: 3
- HIST 1700 American Civilization
- HIST 2700 US History to 1877
- **and** HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values — 3
- HLTH 1100 Personal Health & Wellness
- **or** PES 1097 Fitness for Life — 2

Distribution Courses
- Biology — 3
- Physical Science — 3
- Additional Biology or Physical Science — 3
- Any 2020 Foreign Language course — 3
- Fine Arts Distribution — 3
- Social/Behavioral Science — 3

Discipline Core Requirements: 18 Credits
- IS 3000 Introduction to Integrated Studies — 3
- IS 3500 Topics in Integrated Studies — 3
- PHIL 3000 Title: — 3
  +
- PHIL 3000 Title: — 3
  +
- ENGL 4700 Advanced College Writing — 3
- IS 489R Integrated Studies Capstone — 3

Specialty Core Requirements: 36 Credits
- Complete one approved Integrated Studies Emphasis — 18
- Complete another approved Integrated Studies Emphasis (see detail below) — 18

Elective Requirements: 34 Credits
- Complete any 1000-level, or higher, course (7 credits must be upper-division) — 34

Graduation Requirements:
1. Completion of a minimum of 123 semester credits; a minimum 0f 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 UVSC, 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 18 credit hours of course work from one language to include the 1010, 1020, 2010, and 2020 levels or transferred equivelents.

   Note: All Emphases are required to have a minimum of 9 upper-division credits (with 12 preferred).

BS IN INTEGRATED STUDIES — 123 CREDITS

Matriculation Requirements:
1. An associate of arts or associate of science degree, or
2. Junior status in college with approximately 60 credits.
3. 2.5 GPA minimum

General Education Requirements: 36 Credits
- ENGL 1010 Introduction to Writing — 3
- ENGL 2010 Intermediate Writing—Humanities/Social Science
- **or** ENGL 2020 Intermediate Writing—Science and Technology — 3
- MATH 1050 College Algebra (recommended for Business, Education, Science, and Health Professions majors) — 4

Complete one of the following: 3
- HIST 1700 American Civilization
- HIST 2700 US History to 1877
- **and** HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values — 3
- HLTH 1100 Personal Health & Wellness
- **or** PES 1097 Fitness for Life — 2

Distribution Courses
- Biology — 3
- Physical Science — 3

BS IN INTEGRATED STUDIES (CON'T) 123 CREDITS

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

Discipline Core Requirements: 22 Credits

- IS 3000 Introduction to Integrated Studies 3
- IS 3500 Topics in Integrated Studies 3
- PHIL 3000 Title: 3
  +
- PHIL 3000 Title: 3
  +
- ENGL 4700 Advanced College Writing 3
- IS 489R Integrated Studies cAPSTONE 3
- MATH 1210 Calculus I
  or MATH 2040 Principles of Statistics 4

Specialty Core Requirements: 36 Credits

- Complete one approved Integrated Studies Emphasis 18
- Complete another approved Integrated Studies Emphasis (see detail below) 18

Elective Requirements: 29 Credits

- Any 1000-level, or higher, course (7 credits must be upper-division) 29

Graduation Requirements:

1. Completion of a minimum of 123 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 UVSC, 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.

Note:
Cooperative Education: A maximum of six upper division credit hours of cooperative work experience can apply toward the Integrated Studies Degree. (Only three of the six hours can be in an emphasis area)
All Emphases are required to have a minimum of 9 upper-division credits (with 12 preferred).

LIBERAL ARTS EMPHASES

American Sign Language

Specialty Core Requirements: 18 Credits

Prerequisites (see advisor)

- ASL 1010 Beginning American Sign Language I (5)
- ASL 1020 Beginning American Sign Language II (5)
- ASL 2010 Intermediate American Sign Language I (5)
- ASL 2020 Intermediate American Sign Language II (3)

Choose 18 credits from the following: 18

- ASL 3050 Advanced American Sign Language*
- ASL 3310 Interpreting I
- ASL 3330 Cross-Cultural Communication and Interpreting
- ASL 3510 Deaf Culture to 1817
- ASL 3520 Deaf Culture 1817 to 1970
- ASL 3530 Deaf Culture from 1970
- ASL 3610 ASL Literature
- ASL 3800 ASL Deaf Culture Studies
- ASL 4410 ASL Linguistics

NOTE:
* ASL 3050 is a prerequisite to all higher-numbered courses listed in Specialty Core Requirements

Ballet

Specialty Core Requirements: 20 Credits

Prerequisites:

- DANC 1330 Studio Workshop-Creative Process in Dance (1)
- DANC 2110 Orientation to Dance (3)
- DANC 2670 Introduction to Laban Studies (2)
- DANC 3560 World Dance Forms (2)

Complete the following:

- DANC 2340 Composition 2
- DANC 3630 Dance History 3
- DANC 3670 Movement Analysis 3
- DANC 4880 Current Issues in Dance 3
- DANC 4920 Dance as Cultural Practice 3

Complete 6 credits from the following classes: 6

- DANC 227R Ballet Technique II (2 semesters)
- DANC 327R Ballet Technique III (2 semesters)
- DANC 427R Ballet Technique IV (2 semesters)
- DANC 428R Ballet Technique V (2 semesters)

Ballroom Dance

Specialty Core Requirements: 20 Credits

Prerequisites (see advisor):

- DANC 1330 Studio Workshop-Creative Process in Dance (1)
- DANC 2110 Orientation to Dance (3)
- DANC 2670 Introduction to Laban Studies (2)
- DANC 3560 World Dance Forms (2)

Complete the following:

- DANC 2340 Composition 2
- DANC 3630 Dance History 3
- DANC 3670 Movement Analysis 3
- DANC 4880 Current Issues in Dance 3
- DANC 4920 Dance as Cultural Practice 3

Complete 6 credits from the following classes: 6

- DANC 1700 American Social Dance I
- DANC 1710 International Ballroom Dance I
- DANC 1720 Latin Ballroom Dance I
- DANC 2700 American Social Dance II
- DANC 2710 International Ballroom Dance II
- DANC 2720 Latin Ballroom Dance II
- DANC 370R American Social Dance III
- DANC 371R International Ballroom Dance III
- DANC 372R Latin Ballroom Dance III
- DANC 3730 American Social Dance Teaching Methods
- DANC 376R Ballroom Dance Company Reserve Tour Team
- DANC 4740 International Ballroom Dance Teaching Methods
- DANC 4750 Latin Ballroom Dance Teaching Methods
- DANC 476R Ballroom Dance Company Tour Team

Behavioral Science

Specialty Core Requirements: 19 Credits

Prerequisites:

- ANTH 1010 Social/Cultural Anthropology** (3)
- PSY 1010 General Psychology** (3)
- SOC 1010 Introduction to Sociology** (3)

Complete the following:

- PSY 3010 Statistics for the Behavioral Sciences* 4
  or SOC 3010 Statistics for the Behavioral Sciences*
- PSY 3020 Research Methods for the Behavioral Sciences 3
  or SOC 3020 Research Methods for the Behavioral Sciences

Complete 12 credits from the following: 12
Six (6) credits must be upper division (3000 and 4000), six (6) credits may be upper or lower division (1000 or above). Choose from ANTH/BESC/PSY/SOC/SOWK)

NOTE: A minimum GPA of 2.5 in all Specialty Core courses with no grade lower than a C- required for graduation.
* Note: If students take MGMT 3340 as part of their other emphasis, they are not required to take PSY/SOC 3010. They may substitute an upper division ANTH, PSY, SOC, or SOWK course in its place.
**Note: ANTH/SOC/PSY 1010 are introductory coursesand pre-requisites which may not be used in the 18 hours required for these Integrated Studies Emphases.

Biology

Specialty Core Requirements: 18 Credits

Prerequisites (see Advisor):
Biology Emphasis
Prerequisites (see Advisor):

- BIOL 1610 College Biology I (4)
- BIOL 1615 College Biology Laboratory I (1)
- CHEM 1110 Elementary Chemistry for the Health Sciences (recommended) (4)

Complete the following:

- BIOL 1620 College Biology II 3
- BIOL 1625 College Biology II Laboratory 1
- BIOL 4500 Principles of Evolution 3
- Complete 11 credits (minimum of 9 credits must be upper-division) from any BIOL, BOT, MICR, or ZOOL courses except BIOL 1010, ZOOL 1090, BIOL 494R, BIOL 495R, or BIOL 499R. 11

Communication

Specialty Core Requirements: 18 Credits

Complete one of the following tracks:
TRACK ONE: ANALYTIC
Complete six credits from the following: 6

- COMM 2270 Argumentation
- COMM 2400 Organizational Communication
- COMM 2010 Mass Communication and Society
- COMM 2300 Public Relations
- THEA 2313 Film History I
- THEA 2323 Film History II
- THEA 2333 Race, Culture, & Gender in Film

Complete twelve credits from the following: 12

- ANTH 3500 Discourse, Semiotics, and Representation
- ENGL 4830 American Studies Theory and Methodology
- COMM 3320 Cross-Cultural Communications for International Business
- COMM 3400 Film Theory
- COMM 3410 Fundamentals of Mediation and Negotiation
- COMM 350R Special Topics in Mass Communication
- COMM 3520 Case Studies in Public Relations
- COMM 3600 Mass Media Ethics and Law
- COMM 3620 International Communication
- COMM 3790 Case Studies in Journalism
- COMM 4100 Advanced Mediation and Negotiation

TRACK TWO: APPLIED
Complete all of the following three classes: 9

- COMM 2130 Multimedia News Writing and Reporting
- COMM 2700 Broadcast Journalism Producing and Anchoring
- COMM 3600 Mass Media Ethics and Law

Complete one of the following three classes: 3

- COMM 2010 Mass Communication and Society
- COMM 2300 Public Relations
- COMM 2790 Journalism II
- COMM 2560 Radio Production

Complete one of following two classes: 3

- COMM 413R Advanced Television News Writing and Reporting
- COMM 470R On-Air Broadcast Journalism

Complete two of following four classes: 6

- COMM 3520 Case Studies in Public Relations
- COMM 3790 Case Studies in Journalism
- COMM 413R Advanced Television News Writing and Reporting
- COMM 470R On-Air Broadcast Journalism

Community Health

Specialty Core Requirements: 18 Credits

Complete the following:

- HLTH 3200 Principles of Community Health 3
- HLTH 4050 Foundations of Health Education 3
- HLTH 3400 Human Diseases 3
  or HLTH 3800 Epidemiology
- HLTH 4300 Community Health Ethics
  or HLTH 4600 Research Methods for Community Health 3

Choose 6 credits from the following: 6

- NUTR 1020 Foundations of Human Nutrition
- NUTR 2020 Nutrition Through the Life Cycle
- HLTH 2400 Concepts of Stress Management
- HLTH 2800 Human Sexuality
- HLTH 2600 Drugs, Behavior and Society
- HLTH 2700 Health Concepts of Death and Dying
- HLTH 3150 Culture, Ecology and Health
- HLTH 3240 Women's Health Issues
- HLTH 3250 Consumer Health
- HLTH 3260 Modifying Health Behavior
- HLTH 3300 Health Promotion for Older Adults
- HLTH 4150 Community Health Program Development and Evaluation
- HLTH 4250 Health Services Organization and Policy
- HLTH 490R Special Topics in Community Health

Earth Science

Specialty Core Requirements: 18 Credits

Earth Science Emphasis:

- GEO 1010 Introduction to Geology 3
- GEO 1015 Introduction to Geology Laboratory (highly recommended)

Complete one of the following sets (lab is highly recommended):

- GEO 1220 Historical Geology 3
  and GEO 1225 Historical Geology Laboratory (highly recommended)
  or GEO 1080 Introduction to Oceanography
  and GEO 1085 Introduction to Oceanography Laboratory (highly recommended)
  or METO 1010 Introduction to Meteorology
  and METO 1020 Introduction to Meteorology Lab (highly recommended)

Complete three courses from the following: 12
- METO 3100 Earth Systems
- and METO 1020 Introduction to Meteorology Laboratory
- or GEO 1015 Introduction to Geoelogy Laboratory
- or GEO 1225 Historical Geology Laboratory
- GEO 3080 Earth Materials
- GEO 3200 Geologic Hazards
- GEO 3210 Environmental Geology
- GEO 3700 Structure and Tectonics
- GEO 4500 Earth Systems History I
- GEO 4510 Earth Systems History II

English

Specialty Core Requirements: 18 Credits

Complete the following:
- ENGL 2600 Critical Introduction to Literature 3

Complete 15 credits from the following: 15
- ENGL 3010 Rhetorical Theory
- ENGL 3020 Modern English Grammars
- ENGL 3040 History of the English Language
- ENGL 3420 Intermediate Fiction Writing
- ENGL 3440 Intermediate Poetry Writing
- ENGL 3710 Literature by Women
- ENGL 373R Literature of Cultures and Places
- ENGL 3740 Literature of the Sacred
- ENGL 3760 World Literature
- ENGL 3820 History of Literary Criticism
- ENGL 3890 Contemporary Critical Approaches to Literature
- ENGL 4010 Studies in Language
- ENGL 412R Studies in Literary Genres
- ENGL 4310 Advanced Technical Writing
- ENGL 4570 Studies in the American Novel
- ENGL 4620 Chaucer
- ENGL 4630 Shakespeare
- ENGL 4640 Milton
- ENGL 471R Eminent Authors
- ENGL 474R Topics in Folklore
- ENGL 4760 Multi-ethnic Literature in America
- ENGL 4800 Senior Seminar
- ENGL 4830 American Studies Theory and Methodology
- ENGL 486R Topics in Literature

French

Specialty Core Requirements: 18 Credits

Prerequisites (see Advisor):
- FREN 1010 Beginning French I (5)
- FREN 1020 Beginning French II (5)
- FREN 2010 Intermediate French I (5)
- FREN 2020 Intermediate French II (5)
- FREN 2050 Advanced French Grammar and Composition (3)

Choose 18 credits from the following: 18
- FREN 3040 Introduction to Literary Genres in French*
- or FREN 3050 Advanced French*
- FREN 3200 Business French
- FREN 3510 Culture and Civilization to 1700
- FREN 3520 Culture and Civilization from 1700
- FREN 3610 French Literature to 1700
- FREN 3620 French Literature from 1700
- FREN 4200 Advanced Business French

NOTE:
* FREN 3040 or 3050 is the prerequisite to all higher-numbered courses listed in Specialty Core Requirements.

History

Specialty Core Requirements: 18 Credits

History Emphasis

Complete one of the following:
- HIST 3010 The Nature of History 3
- or HIST 3260 History of Utah
- or See Advisor
- Complete an additional 15 credits from any HIST course 3000 or higher (see advisor) 15

Modern Dance

Specialty Core Requirements: 20 Credits

Prerequisites:
- DANC 1330 Studio Workshop-Creative Process in Dance (1)
- DANC 2110 Orientation to Dance (3)
- DANC 2670 Introduction to Laban Studies (2)
- DANC 3560 World Dance Forms (2)

Complete the following:
- DANC 2340 Composition 2
- DANC 3630 Dance History 3
- DANC 3670 Movement Analysis 3
- DANC 4880 Current Issues in Dance 3
- DANC 4920 Dance as Cultural Practice 3

Complete 6 credits from the following classes: 6
- DANC 143R Modern Dance Technique and Theory I
- DANC 144R Modern Dance Technique and Theory I
- DANC 243R Modern Dance Technique and Theory II
- DANC 244R Modern Dance Technique and Theory II
- DANC 341R Modern Dance Technique and Theory III
- DANC 342R Modern Dance Technique and Theory III
- DANC 441R Modern Dance Technique and Theory IV
- DANC 442R Modern Dance Technique and Theory IV

Music

Specialty Core Requirements: 18 Credits

Prerequisites (see advisor)
- MUSC 1110 Basic Music Theory I (3)
- MUSC 1130 Aural Music Skills I (2)
- MUSC 1120 Basic Music Theory II (3)
- MUSC 1140 Aural Music Skills II (2)
- MUSC 2350 Fundamentals of Conducting (2)
- MUSC 1400 Introduction to Music Technology (2)
- MUSC 2110 Advanced Music Theory I (3)
- MUSC 2120 Advanced Music Theory II (3)

Individual Musicianship Studies: Student must complete 4 credits selected from the following:
- MUSC 150R Individual Piano Instruction
- MUSC 151R Individual Voice Instruction
- MUSC 152R Individual Woodwind Instruction
- MUSC 153R Individual Brass Instruction
- MUSC 154R Individual String Instruction
- MUSC 155R Individual Percussion Instruction
- MUSC 156R Individual Guitar Instruction

Performance Group Studies: Students must complete 4 credits selected from the following:
- MUSC 120R A Cappella Choir
- MUSC 124R UVSC Concert Choir
- MUSC 130R Symphonic Band
- MUSC 170R Symphony Orchestra

Complete the following:
- MUSC 2010 Music History and Literature I 3
- MUSC 2020 Music History and Literature II 3

Complete 3 credits from the following. (Each course may be repeated (3) times toward graduation): 3
- MUSC 350R Advanced Individual Piano Instruction
- MUSC 351R Advanced Individual Voice Instruction
- MUSC 352R Advanced Individual Woodwind Instruction
- MUSC 353R Advanced Individual Brass Instruction
- MUSC 354R Advanced Individual String Instruction
- MUSC 355R Advanced Individual Percussion Instruction
- MUSC 356R Advanced Individual Guitar Instruction

Complete 3 credits from the following. (Each course may be repeated (3) times toward graduation): 3
- MUSC 320R Advanced A Cappella Choir
- MUSC 330R Advanced Symphony Band
- MUSC 370R Advanced Symphony Orchestra

Complete at least 6 credits from the following (3 credits must be upper-division): 6
- MUSC 1800 Introduction to Music Education
- MUSC 3120 Form and Analysis
- MUSC 3150 Advanced Instrumental Conducting
- MUSC 4130 Scoring and Arranging
- MUSC 4150 Advanced Choral Conducting
- MUSC 4600 Jazz Improvisation

Outdoor Leadership

Specialty Core Requirements: 18 Credits

Outdoor Leadership Emphasis

Complete the following:
- REC 3600 Recreation and Leisure 3
- REC 3100 Recreation Program Planning 3
- REC 3400 Recreation Risk Management 3
- REC 4000 Outdoor Leadership 4

Complete 5 credits from the following: 5
- REC 1527 Rock Climbing I
- REC 1525 Mountaineering
- REC 1550 Off-Road Cycling
- REC 1350 Scuba Diving I
- REC 1351 Scuba Diving II
- REC 1505 Whitewater Kayaking
- REC 1528 Rock Climbing II
- REC 2005 Ropes Course Facilitation
- REC 2010 Avalangce Awareness
- REC 1500 Canoeing
- REC 3300 Wilderness Skills

Philosophy

Specialty Core Requirements: 18 Credits

Complete the following:
- PHIL 1250 Logical Thinking 3

Complete 3 credits from the following: 3
- PHIL 1000 Introduction to Philosophy
- PHIL 1600 World Religions
- PHIL 2010 Ancient-Medieval Philosophy
- PHIL 2020 Modern-Contemporary Philosophy
- PHIL 3150 Philosophical Issues in Feminism
- PHIL 3450 Philosophy of Childhood
- PHIL 3400 Philosophy of Science
- PHIL 290R Independent Study
- PHIL 295R Directed Readings

Complete 12 credits from the following: 12
- PHIL 3000 Formal (Deductive) Logic
- PHIL 3800 Introduction to Aesthetics
- PHIL 3300 Epistemology
- PHIL 3510 Business and Professional Ethics
- PHIL 3600 Philosophy of Religion
- PHIL 3530 Environmental Ethics
- PHIL 3700 Social and Political Philosophy
- PHIL 4140 History of Analytic Philosophy
- PHIL 4480 Philosophy of Language
- PHIL 400R Great Philosophers
- PHIL 450R Interdisciplinary Senior Ethics Seminar
- PHIL 451R Ethical Theory Seminar

Physical Education

Specialty Core Requirements: 18 Credits

Physical Education Emphasis

Complete the following:
- PES 2700 Foundations of Physical Education and Recreation 3
- PES 3270 Methods of Teaching Fitness 3
- PES 3500 Kinesiology 3
- PES 3700 Exercise Physiology 4

Complete 5 credits from the following: 5
- Any PES 1000 level course except PES 1097, maximum of 1 credit may be applied to graduation
- Any PES course 2050 or higher

Psychology

Specialty Core Requirements: 19 Credits

Prerequisites:
- PSY 1010 General Psychology** (3)

Complete the following:
- PSY 2250 Psychology of Interpersonal Relationships 3
- or PSY 2400 Psychology of Personal Effectiveness
- PSY 3010 Statistics for the Behavioral Sciences* 4
- PSY 3020 Research Methods for the Behavioral Sciences 3

Complete 9 additional credits in PSY. 9
- Six (6) credits must be upper division (3000 and 4000), three (3) credits may be upper or lower division (1000 or above).

* Note: If students take MGMT 3340 as part of their other emphasis, they are not required to take PSY/SOC 3010. They may substitute an upper division ANTH, PSY, SOC, or SOWK course in its place.
**Note: ANTH/SOC/PSY 1010 are introductory coursesand pre-requisites which may not be used in the 18 hours required for these Integrated Studies Emphases.

Religious Studies

Specialty Core Requirements: 18 Credits

Prerequisites (see Advisor)
- PHIL 1610 Introduction to Western Religions (3)
- PHIL 1620 Introduction to Eastern Religions (3)

Complete the following:
- PHIL 3600 Philosophy of Religion 3
- RLST 3650 Approaches to Religious Studies 3
- RLST 366R Issues in Religious Studies 3

Complete 9 credits from the following: 9
- ANTH 3400 Myth, Magic, and Religion
- ANTH 360R People and Cultures of the World
- ENGL 2230 Myths and Legends in Literature
- ENGL 373R Literature of Cultures and Places
- ENGL 3740 Literature of the Sacred
- ENGL 3760 World Literature
- ENGL 471R Eminent Authors
- ENGL 474R Topics in Folklore
- PHIL 450R Interdisciplinary Senior Ethics Seminar

Social Sciences

Specialty Core Requirements: 18 Credits

Social Sciences Emphasis

Complete 3 credits from the following courses: 3
- ARCH 1100 Introduction to Archaeology

- ECON 1010 Economics as a Social Science
- ECON 1740 U.S. Economic History
- GEOG 1300 Survey of World Geography
- GEOG 2100 Geography of the United States & Canada
- GEOG 3010 Economic Geography
- GEOG 3430 Political Geography
- GEOG 3630 Introduction to Geographic Information Systems
- GEOG 3800 Environmental History of the United States

Complete 3 credits from the following courses: 3
- POLS 1000 American Heritage
- POLS 1010 Introduction to Political Science
- POLS 1020 Political Ideologies
- POLS 1100 American National Government
- POLS 1440 Introduction to Middle East Politics
- POLS 2200 Introduction to Comparative Politics
- POLS 2100 Introduction to International Relations
- POLS 1800 Our Global Community
- POLS 2120 Political Parties
- POLS 2350 Introduction to Political Theory
- POLS 3000 Political Analysis
- POLS 3030 State and Local Government
- POLS 3100 Survey of International Terrorism
- POLS 3150 Executive Branch
- POLS 3200 Legislative Process
- POLS 3500 International Relations of the Middle East
- POLS 3590 American Indian Law and Tribal Government
- POLS 3600 International Relations of East Asia
- POLS 480R Internship

Complete at least 3 credits from the following courses: 3
- HIST 1700 American Civilization
- HIST 1100 History of Civilization I
- HIST 1110 History of Civilization II
- HIST 2700 U.S. History to 1877
- HIST 2710 U.S. History since 1877

Complete an additional 9 credits from any GEOG, HIST, or POLS course 3000 or higher (see advisor). 9

Sociology

Specialty Core Requirements: 19 Credits

Prerequisites:
- SOC 1010 Introduction to Sociology (3)

Complete the following:
- SOC 3000 Contemporary Social Theory 3
- SOC 3010 Statistics for the Behavioral Sciences* 4
- SOC 3020 Research Methods for the Behavioral Sciences 3

Complete 9 credits from the following: 9
- Three (3) credits must be upper division (3000 and 4000), six (6) credits may be upper or lower division (1000 or above). Choose from SOC.

* Note: If students take MGMT 3340 as part of their other emphasis, they are not required to take PSY/SOC 3010. They may substitute an upper division ANTH, PSY, SOC, or SOWK course in its place.

Spanish

Specialty Core Requirements: 18 Credits

Prerequisites (see Advisor):
- SPAN 1010 Beginning Spanish I (5)
- SPAN 1020 Beginning Spanish II (5)
- SPAN 2010 Intermediate Spanish I (5)
- SPAN 2020 Intermediate Spanish II (3)
- SPAN 2050 Advanced Spanish Grammar and Composition (3)

Complete 18 credits from the following: 18
- SPAN 3040 Introduction to Literary Genres in Spanish*
- or SPAN 3050 Advanced Spanish*
- SPAN 3200 Business Spanish
- SPAN 3220 Pronunciation, Phonetics and Phonology
- SPAN 3510 Culture and Civilization: Spain
- SPAN 3520 Culture and Civilization: Latin America
- SPAN 3610 Spanish Peninsular Literature to 1800
- SPAN 3620 Spanish Peninsular Literature from 1880
- SPAN 3630 Latin American Literature to 1880
- SPAN 3640 Latin American Literature from 1800
- SPAN 4050 Special Topics in Grammar, Usage, and Style
- SPAN 4200 Advanced Business Spanish
- SPAN 4900 Capstone Seminar

NOTE:
* SPAN 3040 or 3050 is the prerequisite to all higher-numbered courses listed in Specialty Core Requirements

NON-LIBERAL ARTS EMPHASES

Accounting

Specialty Core Requirements: 18 Credits
- ACC 3010 Intermediate Accounting I 3
- ACC 3020 Intermediate Accounting II 3

Choose 12 credits from the following: 12
- ACC 3300 Cost Accounting
- ACC 3400 Individual Income Tax
- ACC 3510 Accounting Information Systems
- ACC 4110 Auditing
- ACC 4400 Taxation of Corporations, Partnerships, Estates & Trusts

Note: A minimum of 2.5 GPA in all School of Business courses, and no grade lower than a C-, required for graduation.

Business Management

Specialty Core Requirements: 18 Credits

Business Management Emphasis
Prerequisites:
- ACC 3000 Financial, Managerial, and Cost Accounting (4)
- or ACC 2010 Financial Accounting (3)
- and ACC 2020 Managerial Accounting (3)

Complete the following:
- ISYS 3120 Principles of Information Systems: A Managerial Approach 3
- MGMT 2020 Macroeconomics (fulfills Behavioral/Social Science requirements) 3
- MGMT 3010 Principles of Management 3
- MGMT 3600 Principles of Marketing 3

Complete 6 credits from the following: 6
- LEGL 3000 Business Law
- MGMT 3100 Principles of Finance
- MGMT 3300 Survey of International Business
- MGMT 3430 Human Resource Management
- MGMT 2010 Microeconomics

Note: A minimum of 2.5 GPA in all School of Business courses, and no grade lower than a C-, required for graduation.

Computer Science

Specialty Core Requirements: 18 Credits

Complete one of the following: 3
- CNS 3250 Java Software Development
- CNS 3370 C++ Software Development

Complete 15 credits from the following: 15
- CNS 3240 Introduction to Computational Theory
- CNS 3250 Java Software Development
- CNS 3330 Windows Programming
- CNS 3370 C++ Software Development
- CNS 3400 Software Engineering I
- CNS 4330 Advanced Windows Programming
- CNS 4380 Advanced/High-Performance Computer Architecture
- CNS 4450 Analysis of Programming Languages
- CNS 4490 Compilers II

NOTE: A minimum GPA of 2.5 in all Specialty Core courses with no grade lower than a C- required for graduation.

Computer Networking

Specialty Core Requirements: 18 Credits

Complete 18 credits from the following: 18
- CNS 2600 Fundamentals of Data Communications
- CNS 3060 Operating Systems Theory
- CNS 2610 Network Administration
- or CNS 2630 Network Management
- CNS 3610 Advanced Network Administration
- or CNS 3630 Advanced Network Management
- CNS 3670 Network Programming
- CNS 3690 Advanced Topics in Data Communications
- CNS 4610 TCP/IP Internet Architecture

NOTE: A minimum GPA of 2.5 in all Specialty Core courses with no grade lower than a C- required for graduation.

Hospitality Management

Specialty Core Requirements: 18 Credits

Hospitality Management Emphasis:
Complete the following:
- HM 1130 Hotel Operations I 3
- HM 3390 Hotel Operations II 3

Complete 12 credits from the following: 12
- HM 3020 Hospitality Managerial Accounting
- HM 3050 Country Club Management
- HM 3150 Hospitality Finance
- HM 3200 Global Tourism
- HM 3640 Food and Beverage Controls
- HM 3710 Marketing of Hospitality Services
- HM 4550 Hospitality Industry Management
- LEGL 3100 Hospitality Law
- or LEGL 3000 Business Law

Note: A minimum of 2.5 GPA in all School of Business courses, and no grade lower than a C-, required for graduation.

Leadership

Specialty Core Requirements: 18 Credits

Leadership (Upper Division) Emphasis
Prerequisites:
- ACC 3000 Financial, Managerial, and Cost Accounting (4)
- or ACC 2010 Financial Accounting (3)
- and ACC 2020 Managerial Accounting (3)

Complete the following:
- ISYS 3120 Principles of Information Systems: A Managerial Approach 3
- MGMT 2020 Macroeconomics (fulfills Behavior/Social Science requirements) 3
- MGMT 3000 Organizational Behavior 3
- MGMT 3010 Principles of Management 3
- MGMT 3500 Leadership Process 3
- MGMT 3600 Principles of Marketing 3

Note: A minimum of 2.5 GPA in all School of Business courses, and no grade lower than a C-, required for graduation.

Military Science

Specialty Core Requirements: 18 Credits

Military Science Emphasis
- MILS 3200 Small Unit Leadership I 3
- MILS 3210 Small Unit Leadership II 3
- MILS 4200 The Profession of Arms I 3
- MILS 4210 The Profession of Arms II 3

Complete one of the following: 3
- HIST 3450 The History of World War II
- HIST 3520 The United States and Vietnam—1945 to Present
- HIST 3740 American Revolution

Complete 3 credits from the following: 3
- COMM 3520 Case Studies in Public Relations
- CJ 3040 Community Policing
- ENGL 2310 Technical Writing
- ISYS 3600 Adult Learning for Instructional Design
- ISYS 3650 Training and Development
- MGMT 3300 Survey of International Business
- MGMT 3320 Cross-Cultural Communications for International Business
- MGMT 3430 Human Resource Management
- MGMT 3440 Managing Organizations
- POLS 3100 Survey of International Terrorism
- POLS 3400 American Foreign Policy
- POLS 3600 International Relations of East Asia

Notesj:
Contracted Army ROTC Cadets must also satisfy the leadership laboratory and physical fitness terms of their contract in order to be commissioned officers in the US Army.
Military Science students who select this emphasis may not choose Physical Education, Outdoor Leadership, Leadership, or Office Management as their second emphasis.

Multimedia Communication Technology

Specialty Core Requirements: 18 Credits

Prerequisite courses:
- MCT 1110 Mutlimedia Essentials I (4)
- MCT 1210 Multmedia Essentials II (4)
- MCT 1220 Digital Audio Essentials (3)
- MCT 2110 Digital Cinema Essentials (3)
- MCT 2120 Web Essentials (3)
- MCT 2210 3D Modeling and Animation Essentials (4)
- MCT 2240 Interaction Design I (3)

Complete the following:
- MCT 3220 Multimedia Project Management 3
- MCT 3240 Interaction Design II 3
- MCT 4310 Senior Projects I 3
- MCT 4330 Corporate Issues in Multimedia 3

Complete 6 credits from the following: 6
- MCT 3120 Developing Multimedia for Accessibility

- MCT 3130 Digital Storyboarding
- MCT 2220 Marketing for Multimedia
- MCT 4110 Writing for Multimedia
- or ENGL 4310 Advanced Technical Writing
- MCT 4410 Senior Projects II

Office Management

Specialty Core Requirements:			18 Credits
Complete the following:			
• ISYS	2450	Business Spreadsheet Applications	3
• ISYS	4350	Information Workflow Management	3
• ISYS	4360	Information Project Management	3
• MGMT	2390	Effective Business Presentations	3
Complete 6 or more credits from the following (3 credits must be upper-division):			6
• ACC	3000	Financial, Managerial, and Cost Accounting	
• ISYS	224R	Digital Communication Tools	
• ISYS	3360	Using Visual Basic for Applications	
• LEGL	3000	Business Law	
• MGMT	3430	Human Resource Management	
• MGMT	3890	Career Preparation	
Recommended courses to be taken as prerequisites (can fulfill elective requirements):			
• ISYS	2360	Business Spreadsheet Applications	3
• ISYS	2370	Business Database Applications	3
• ISYS	3270	Business Presentation Applications	3
• MGMT	2200	Written Business Communication	3

Note:
A minimum of 2.5 GPA in all Specialty Core courses with no grade lower than a C- required for graduation.

Technology Management

Specialty Core Requirements:			18 Credits
• TECH	3700	Purchasing, Inventory Control, Capacity Management	5
Complete 13 credits from the following:			13
• TECH	3850	Quality and Inspection in Technology	
• TECH	4000	Reliability Engineering and Safety	
• TECH	4200	Technology Marketing and Distribution	
• TECH	4400	Project Evaluation and Economics	
• TECH	4500	Technological Project Management	

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

IS 3000 HH
Introductory Topics in Integrated Studies
3:3:0 Su, F, Sp
• Prerequisite: PHIL 2050
A first course in interdisciplinary approaches and research methods. Introduces a varitey 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.

IS 3500
Topics in Integrated Studies
3:3:0 Su, F, Sp
• Prerequisite: IS 3000
Advanced course in interdisciplinary approaches and research methods. Each term, the course examines a particular interdisciplinary topic. Topics vary from semester to semester. Professors, either singly or as team-teachers, present topics that cross one or more fields of academic specialty from the arts and sciences, leading classes through lecture, reading, discussion and research. Research and writing intensive. Requires final research paper. Involves writing across curriculum.

IS 489R
Integrated Studies Capstone
3:3:0 Su, F, Sp
• Prerequisite: IS 3500 and ENGL 4700
For students completing the baccalaureate IS experience. 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, which must approve the written thesis. Requires the student to orally present the thesis in a formal defense. May be repeated for 6 credits toward graduation.

IS 495R
Interdisciplinary Lecture Series
0.5:0.5:0 F, Sp
Explores connections between various academic disciplines. Provides a broadly based look at a range of disciplines. Maybe repeated once for a total of one hour of credit.

LANGUAGES

Department of Foreign Languages

Department Office: LA 003a
Department Telephone: 801-863-8518

Department Chair: Del K. Shumway
Office: LA 003b
Telephone: 801-863-8231

Faculty:

Professor
- Ruediger Lehnardt (German)
- Del K. Shumway (Spanish)
- Alfred Silvia (French)

Associate Professor
- Bryan Eldredge (ASL)
- Douglas Jensen (Spanish)
- Liliana Riboldi (Spanish)
- Minnie Mae Wilding-Diaz (ASL)

Assistant Professor
- Gregory Briscoe (Spanish)
- Debora Ferreira (Portuguese)

Lecturer
- Sara Ulloa

Faculty Advisors: Gregory Briscoe, Bryan Eldredge, Debora Ferreira, Douglas Jensen, Rudi Lehnardt, Liliana Riboldi, Del Shumway, Alfred Silvia, Minnie Mae Wilding-Diaz, Sara Ulloa.

School of Humanities, Arts, and Social Sciences

Dean: William W. Cobb, Jr.
Office: LA 209d
Telephone: 801-863-7435

ACADEMIC OPPORTUNITIES

Language expertise has specific application to a career in language teaching or translation. It becomes an attending and often essential skill in any business or government activity that involves domestic or international non-English speaking communities. The fact that business and government are more and more global enterprises, coupled with the fact that the U.S. citizenry is less and less monolingual English, is increasing the demand for language expertise throughout all facets of social interaction, particularly, but not limited to industry, commerce, and education.

PROGRAMS

UVSC offers beginning (1000 level) and intermediate (2000 level) courses in ASL, Chinese, French, German, Japanese, Portuguese, Russian, and Spanish, as well as upper division (3000 level) language classes. UVSC courses support inter-College programs/degrees that require languages (e.g., Associate in Arts requires 10 hours of the same recognized foreign language) and transfer to other colleges and universities, therein either partially or completely fulfilling entrance or degree requirements in language.

Foreign language courses fulfill AA/AS Humanities electives and AAS Humanities requirements.
Foreign Language courses numbered 2020 apply to Humanities Distribution requirements.

BA IN SPANISH — 120 CREDITS

Matriculation Requirements:
1. Complete English 2010 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 2020) or receive the equivalent through experiential credit (does not apply to native speakers)
3. Apply and pay $20 application fee.

General Education Requirements: 35 Credits

• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	3
or ENGL	2020	Intermediate Writing—Science and Technology	
Complete one of the following:			3
• MATH	1030	Quantitative Reasoning	
• MATH	1040	Introduction to Statistics	
• MATH	1050	College Algebra	
Complete one of the following:			3
• HIST	1700	American Civilization	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health & Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses			
• Humanities Distribution (non-language courses only)			3
• Social/Behavioral Science			3
• Fine Arts Distribution			3
• Biology			3
• Physical Science			3
• Additional Biology or Physical Science			3

Discipline Core Requirements: 12 Credits

• SPAN	3040	Introduction to Literary Genres in Spanish	3
or SPAN	3050	Advanced Spanish	
• SPAN	3510	Culture and Civilization—Spain	3
or SPAN	3520	Culture and Civilization—Latin America	
• SPAN	4050	Special Topics in Grammar Usage and Style	3
• SPAN	4900	Capstone Seminar	3

Elective Requirements 73 Credits

Complete 18 credits from the following:			18
• SPAN	3200	Business Spanish	
• SPAN	3220	Pronunciation Phonetics and Phonology	
• SPAN	3510	Culture and Civilization—Spain	
• SPAN	3520	Culture and Civilization—Latin America (see Discipline Core Requirements above)	
• SPAN	3610	Spanish Peninsular Literature to 1800	
• SPAN	3620	Spanish Peninsular Literature from 1800	
• SPAN	3630	Latin American Literature to 1880	
• SPAN	3640	Latin American Literature from 1880	
• SPAN	4200	Advanced Business Spanish	
Choose 10 credits of upper division electives			10
Any course 1000 level or higher*			45

Graduation Requirements
1. 120 credit hours (minimum of 40 upper division)
2. Minimum cumulative G.P.A. of 2.0
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 UVSC, with at least 10 hours earned in the last 45 hours

Students should frequently review their program with faculty or department advisor.
NOTE:
*For eligible students, the lower division courses 1010, 1020, 2010, and 2020, worth 18 hours will apply here.

BA IN SPANISH EDUCATION — 120 CREDITS

Matriculation Requirements:
1. ACT score: 20 composite minimum, no sub-test below 18
2. Passing score on the CAAP exam (3 or higher)
3. Pass a criminal background check, student's junior year
4. Receive approval from Secondary Ed Selection and Retention Committee— formal interview required
5. Meet all other requirements for Secondary Education Program

General Education Requirements: 36 Credits

• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	3
or ENGL	2020	Intermediate Writing—Science and Technology	
• MATH	1050	College Algebra	4
Complete one of the following:			3
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• HIST	1700	American Civilization	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health & Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses			
• Humanities Distribution (non-language courses only)			3
• Social/Behavioral Science			3
• Fine Arts Distribution			3
• Biology			3
• Physical Science			3
• Additional Biology or Physical Science			3

Discipline Core Requirements: 45 Credits

• SPAN	3040	Introduction to Literary Genres in Spanish	3
or SPAN	3050	Advanced Spanish	
• SPAN	3510	Culture and Civilization—Spain	3
or SPAN	3520	Culture and Civilization—Latin America	
• SPAN	4050	Special Topics in Grammar Usage and Style	3
• SPAN	4900	Capstone Seminar	3
• LANG	4200	Methods of Teaching a Foreign Language	3
Education Courses:			
• EDSC	2540	Development of the Adolescent Student	2
• EDSP	3400	Exceptional Students	2
• EDSC	3000	Educational Psychology	3
• EDSC	3050	Foundations of American Education	2
• EDSC	3250	Instructional Media	2
• EDSC	4440	Content Area Reading and Writing	3
• EDSC	4450	Multicultural Instruction/ESL	2
• EDSC	4550	Secondary Curriculum Instruction and Assessment	4
• EDSC	4850	Student Teaching—Secondary	8
• EDSC	4200	Classroom Management I	1
• EDSC	4250	Classroom Management II	1

Elective Requirements 39 Credits

• Complete 18 credits of any upper-division SPAN or LANG course not previously taken.	18
• Complete 21 credits of any courses 1000-level or higher.	21

Graduation Requirements
1. Complete a minimum of 120 credit hours with a minimum of 40 upper-division credits.
2. Minimum cumulative GPA of 2.75 with no grade lower than a C (2.0) in all core and elective 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.

NOTES:
Students should frequently review their program with faculty or department advisor.

BA IN SPANISH EDUCATION (CON'T) 120 CREDITS

Any grade below a C (2.0) in a Spanish core or elective course will not be accepted toward the major. Students must maintain an overall GPA of 2.75 or higher and meet all other graduation requirements stipulated in the college catalog. Post-BA/BS students must take 30 hours of education courses, fulfill the Math 1050 requirement, and meet all stipulated deadlines.

MINOR IN DEAF STUDIES 21 CREDITS

Matriculation Requirements:

1. Declaration of a major in a Bachelor's degree program at UVSC
2. Completion of ASL 2020 or equivalent

Discipline Core Requirements: 21 Credits

	Complete the following:			
•	ASL	3050	Advanced American Sign Language	3
and	ASL	3530	Deaf Culture from 1970	3
and	ASL	3610	ASL Literature	3
	Complete 3 credits from the following:			3
•	ASL	3510	Deaf Culture to 1817	
or	ASL	3520	Deaf Culture 1817 to 1970	
or	ASL	4410	ASL Linguistics	
	Complete 9 credits from the following			9
•	ASL	3310	Interpreting I	
•	ASL	3330	Cross-Cultural Communication and Interpreting	
•	ASL	3350	Consecutive Interpreting	
•	ASL	3360	Simultaneous Interpreting	
•	ASL	3510	Deaf Culture to 1817	
•	ASL	3520	Deaf Culture 1817 to 1970	
•	ASL	3800	ASL Deaf Culture Studies	
•	ASL	4410	ASL Linguistics	
•	LANG	3000	Language and Culture	
or	ANTH	3000	Language and Culture	

Graduation Requirements

1. Overall GPA of 2.0 or above.
2. Residency hours—minimum of 12 credits counting towards the minor through attendance at UVSC.

MINOR IN SPANISH 18 CREDITS

Matriculation Requirements:

1. Complete ENGL 2010 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 2020) or receive the equivalent through experiential credit (does not apply to native speakers).
3. Admitted to a bachelor degree program at UVSC.

Discipline Core Requirements: 18 Credits

	SPAN	3040	Introduction to Literary Genres in Spanish	
or	SPAN	3050	Advanced Spanish	3
	SPAN	3510	Culture and Civilization: Spain	
or	SPAN	3520	Culture and Civilization: Latin America	3
	SPAN	3640	Latin American Literature from 1800	3
Complete 9 credits from the following:				9
	SPAN	3200	Business Spanish	
	SPAN	3220	Pronunciation, Phonetics and Phonology	
	SPAN	3510	Culture and Civilization: Spain	
	SPAN	3520	Culture and Civilization: Latin America	
	SPAN	3610	Spanish Peninsular Literature to 1800	
	SPAN	3620	Spanish Peninsular Literature from 1880	
	SPAN	3630	Latin American Literature to 1880	
	SPAN	3640	Latin American Literature from 1800	
	SPAN	4200	Advanced Business Spanish	
	SPAN	4900	Capstone Seminar	

Graduation Requirements:

1. Completion of Baccalaureate Degree
2. Any grade below a "C" (2.0) in a Spanish Minor course will not be accepted.

BA/BS IN INTEGRATED STUDIES 124 CREDITS

The following Integrated Studies emphases are available (see the Integrated Studies section of this catalog for complete degree requirement listings):

- American Sign Language
- French

BA/BS IN INTEGRATED STUDIES (CON'T) 124 CREDITS

- Spanish

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

ASL 1000
Introduction to the Deaf-World
3:3:0 F

Focuses on the nature, make up, and significance of the Deaf-World as a linguistic and cultural minority group. Gives significant 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 LH
Beginning American Sign Language I
5:5:1 Su, F, Sp

Introduces American Sign Language (ASL) to students with no previous experience with ASL. Employs an immersion approach to language learning. Emphasizes basic expressive and receptive conversational skills. Includes introduction to American Deaf culture. Requires weekly lab.

ASL 1020 LH
Beginning American Sign Language II
5:5:1 Su, F, Sp

• Prerequisite: 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. Employs an immersion approach to language learning. Requires a weekly lab.

ASL 2010 LH
Intermediate American Sign Language I
5:5:1 Su, F, Sp

• Prerequisite: ASL 1020 or equivalent

Reviews and builds upon the grammar and conversation 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.

ASL 2020 LH
Intermediate American Sign Language II
3:3:0 F, Sp

• Prerequisite: ASL 2010 or equivalent

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.

ASL 2030
Advanced Fingerspelling
1:1:0 On Sufficient Demand

• Prerequisite: ASL 1020

Focuses on the patterns of ASL fingerspelling, one of the hardest ASL skills to master. Designed to increase students ability to accurately produce and comprehend ASL fingerspelling. Also gives attention to the nature and application of fingerspelling within the sociocultural context of the Deaf-World. Taught in ASL.

ASL 2040
ASL Numbers
1:1:0 On Sufficient Demand

• Prerequisite: ASL 1020

Focuses on the complex rule systems of ASL numbers, one of the hardest to learn elements of ASL. Designed to increase students' ability to accurately produce and comprehend ASL numbers. Taught in ASL.

ASL 2050
Advanced ASL Grammar
3:3:0 On Sufficeint Demand

• Prerequisite: ASL 2020 or Instructor Approval

Explores the grammar of ASL focusing on areas typically difficult for English speakers. Provides extensive instruction and opportunity for students to improve both comprehension and production. Taught in ASL.

ASL 3050
Advanced American Sign Language
3:3:0 On Sufficient Demand

• Prerequisite: ASL 2020 or equivalent

Designed for non-native ASL users who have attained a fairly good mastery of basic ASL. Focuses on grammatical aspects of ASL, including sign formation, sentence forms, pronominalization, identifying subjects and objects, classifiers, pluralization, time concepts, locatives, and inflectional morphology. Includes considerable study of the culture of Deaf people.

ASL 3310
Interpreting I
3:3:0 On Sufficient Demand

• Prerequisite: Any 3000 level ASL course

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 proce-

dures of interpreting; cognitive processes, physical and psychological factors, intercultural communication, ethics, and situational interpreting. Deaf students are encouraged to enroll.

ASL 3330
Cross-Cultural Communication and Interpreting
3:3:0 On Sufficient Demand
• Prerequisite: ASL 3310 and Instructor Approval
Builds on course ASL 3310. 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.

ASL 3350
Consecutive Interpreting
3:3:1 On Sufficient Demand
• Prerequisite: ASL 3310 or Instructor Approval
Introduces students to skills and processes required to produce consecutive interpretations. Focuses on developing basic cognitive, semantic, and dual tasking abilities required to interpret rehearsed and/or spontaneous texts. Also teaches students to incorporate semantic choice, register, and ethical behavioral decisions and understand how they impact their interpretations. Develops sets of technical or field-specific signs and applying these to interpretative work. Includes one-hour per week lab. Taught in ASL.

ASL 3360
Simultaneous Interpreting
3:3:1 On Sufficient Demand
• Prerequisite: ASL 3350 or Instructor Approval
Introduces students to skills and processes required to produce simultaneous interpretations. Focuses on transitioning students from consecutive interpreting to time-limited simultaneous interpreting. Develops cognitive, semantic, and dual tasking abilities required to interpret spontaneous texts. Teaches and incorporates more advanced semantic choices and negotiation techniques, work with a variety of audience sizes and types. Helps students better understand 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.

ASL 3510
Deaf Culture to 1817
3:3:0 On Sufficient Demand
• Prerequisite: ASL 2020 or equivalent
Explores chronologically to 1817 the formation and treatment of the Deaf community and culture. Completers should acquire an understanding of the ethnic development and linguistic history of the Deaf. Presentations and class instruction conducted entirely in ASL.

ASL 3520
Deaf Culture 1817 to 1970
3:3:0 On Sufficient Demand
• Prerequisite: ASL 2020 or equivalent
Explores chronologically from 1817 to 1970 the evolution and treatment of the Deaf community and culture. Completers should acquire an understanding of the ethnic development and linguistic history of the Deaf. Presentations and class instruction conducted entirely in ASL.

ASL 3530
Deaf Culture from 1970
3:3:0 On Sufficient Demand
• Prerequisite: ASL 2020 or equivalent
Explores chronologically from 1970 to the present the evolution and treatment of the Deaf community and culture. Completers should acquire an understanding of the ethnic development and linguistic history of the Deaf. Presentations and class instruction conducted entirely in ASL.

ASL 3610
ASL Literature
3:3:0 On Sufficient Demand
• Prerequisite: ASL 2020 or equivalent
Explores chronologically representative ASL authors. Emphasizes literary analysis and criticism. Completers should develop knowledge of literary history, acquire skills in interpreting literary texts, and deepen understanding of ASL. Presentations and class instruction conducted entirely in ASL.

ASL 3800 LH
ASL Deaf Culture Studies
3:3:0 On Sufficient Demand
• Prerequisite: ASL 2020 or equivalent, or instructor consent.
Explores various aspects of American Deaf culture, including the identity of the Deaf community, causes and implications of deafness, and important contemporary Deaf issues such as the state of Deaf education and fundamental rights of Deaf people. Improves advanced conversational ASL through daily association with native Deaf signers.

ASL 4410
ASL Linguistics
3:3:0 On Sufficient Demand
• Prerequisite: ASL 3050
Introduces basics of linguistic properties of American Sign Language (ASL). Includes phonology, morphology, syntax, and language in use. Encourages students to think critically about the structure of ASL and the claims researchers make about that structure. Taught entirely in ASL.

CHIN 1010 LH
Beginning Chinese I
5:5:1 F
Studies Mandarin. Emphasizes oral proficiency in pronunciation and basic conversation as well as traditional grammar concepts. First priority is receptive language learning, then verbally-expressive language learning. Reading and writing are studied in CHIN 1020.

CHIN 1020 LH
Beginning Chinese II
5:5:1 Sp
• Prerequisite: CHIN 1010 or equivalent
Continues the same mode of learning as CHIN 1010 with renewed emphasis on conversational skills. Introduces characters and elementary calligraphy, reading and writing.

CHIN 2000
Chinese Character Writing
2:2:0 On Sufficient Demand
• Prerequisite: Basic Chinese speaking ability
Prepares students who have oral fluency in Chinese to read and write Chinese (Kanji Characters). Develops skills in sentence and paragraph writing according to Chinese language norms and format.

CHIN 2010 LH
Intermediate Chinese I
5:5:1 F
• Prerequisite: CHIN 1020 or equivalent
Emphasizes increased communicative ability as well as grammatical accuracy; adds more complex, literary grammatical structures; focuses on reading of basic 600 characters and writing of basic 300 characters. Uses diglot weave (mixture of English and Chinese) and character-romanization mix to ease learning of characters.

CHIN 2020 HH
Intermediate Chinese II
3:3:0 Sp
• Prerequisite: CHIN 2010 or equivalent
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.

FREN 1010 LH
Beginning French I
5:5:1 Su, F, Sp
Emphasizes understanding, speaking, reading and writing skills. Basic language usage and cultural understanding are acquired through an activity-based approach.

FREN 1020 LH
Beginning French II
5:5:1 F, Sp
• Prerequisite: FREN 1010 or equivalent
Completes the first year of study. Includes the remaining grammar, language concepts, and culture, and introduces students to literature in French.

FREN 1500 LH
French Travel Study
3:1:6 On Sufficient Demand
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 LH
Intermediate French I
5:5:1 F, Sp
• Prerequisite: FREN 1020 or equivalent
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.

FREN 2020 HH
Intermediate French II
3:3:0 Sp
• Prerequisite: FREN 2010 or equivalent
Emphasizes reading, writing, and conversational skills through studies in literature excerpts and complete works.

FREN 2050
Advanced French Grammar and Composition
3:3:0 On Sufficient Demand
• Prerequisite: FREN 2020 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 3040
Introduction to Literary Genres in French
3:3:0 On Sufficient Demand
• Prerequisite: FREN 2050 or equivalent
Explores different literary genres in the French language. Provides extensive opportunity for improvement in oral and reading/writing development of language skills. Completers should considerably improve their ability to express themselves in the foreign language. Taught entirely in French.

FREN 3050 LH
Advanced French
3:3:0 On Sufficient Demand
• Prerequisite: FREN 2020, one year residency in French speaking country, or placement test
Continues to emphasize reading, writing, and conversational skills through studies in literary excerpts and complete works. Includes a review of grammar and an introduction to French culture.

FREN 3200 LH
Business French
3:3:0 On Sufficient Demand
• Prerequisite: FREN 3050 or equivalent
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.

FREN 3510
Culture and Civilization to 1700
3:3:0 On Sufficient Demand
• Prerequisite: FREN 3050 or equivalent
Explores chronologically to 1700 the formation and development of French speaking societies and cultures. Completers should acquire an understanding of the ethnic development and linguistic history of these societies and countries. Presentations and class instruction conducted entirely in French.

FREN 3520
Culture and Civilization from 1700
3:3:0 On Sufficient Demand
• Prerequisite: FREN 3050 or equivalent
Explores chronologically from 1700 the evolution and development of French speaking societies and cultures. Completers should acquire an understanding of the ethnic development and linguistic history of these societies and countries. Presentations and class instruction conducted entirely in French.

FREN 3610
French Literature to 1700
3:3:0 On Sufficient Demand
• Prerequisite: FREN 3050 or equivalent
Introduces chronologically to 1700 representative French authors. Emphasizes literary analysis and criticism. Completers should develop knowledge of literary history, acquire skills in interpreting literary texts, and deepen understanding of the French language. Presentations and class instruction conducted entirely in French.

FREN 3620
French Literature from 1700
3:3:0 On Sufficient Demand
• Prerequisite: FREN 3050 or equivalent
Introduces chronologically from 1700 representative French authors. Emphasizes literary analysis and criticism. Completers should develop knowledge of literary history, acquire skills in interpreting literary texts, and deepen understanding of the French language. Presentations and class instruction conducted entirely in French.

FREN 4200
Advanced Business French
3:3:0 On Sufficient Demand
• Prerequisite: FREN 3200 or equivalent
For those taking the exam leading to the Diplome de francais des affaires (DFA 2) awarded by the Chambre de Commerce de d'Industrie de Paris. Emphasizes case studies, marketing, resumes, cover letters, job interviews, computers, and the Internet. Taught entirely in French.

GER 1010 LH
Beginning German I
5:5:1 F, Sp
Studies conversational German that is used in daily settings. Includes culture study and conversation in real life situations. Covers pronunciation, reading, and grammar. Uses the Natural and Total Physical Response teaching methods. Includes field trips and guest lecturers.

GER 1020 LH
Beginning German II
5:5:1 F, Sp
• Prerequisite: GER 1010 or equivalent
Studies second semester conversational German that is used in daily settings. Includes culture study, pronunciation, reading, and grammar. Emphasizes conversation in real life situations. Uses the Natural and Total Physical Response teaching methods. Includes field trips and guest lecturers. Completers should be able to converse enough to visit or work in a German speaking country.

GER 1110 LH
German Conversation I
4:4:0 On Sufficient Demand
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 2010 LH
Intermediate German I
5:5:1 F, Sp
• Prerequisite: GER 1020 or equivalent
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.

GER 2020 HH
Intermediate German II
3:3:0 Sp
• Prerequisite: GER 2010 or equivalent
Studies fourth-semester conversational German that is used in daily settings. Includes culture study, pronunciation, reading, and grammar. Emphasizes conversation in real life situations. Includes the Natural and Total Physical Response teaching methods. Uses field trips and guest lecturers. Prepares students to enter the advanced level of German at colleges. Completers should be able to converse enough to visit or work in a German speaking country.

GER 2700 LH
Immersion German Civilization and Culture
4:4:0 On Sufficient Demand
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 cul-

tural and sporting events. Includes written response, journals, and examinations. Offered only with the Summer Study Abroad program. May be taken concurrently with GER 1110.

GER 3050 LH
Advanced German
3:3:0 F
• Prerequisite: GER 2020, one-year residency in German speaking country, or placement test
Designed for non-native German speakers who have lived in a German speaking country for at least one year and who would like credit for GER 1010,1020, 2010, and 2020. The course includes a review of grammar and an introduction to German literature, art, music, and expository writing.

GER 3200 LH
Business German
3:3:0 On Sufficient Demand
• Prerequisite: GER 3050 or equivalent
For those who plan to pursue careers in international business or related fields, learn the business language for German, understand the German corporate culture, or plan to major or minor in German. Teaches German business terminology and prepares students to take the International German Business Certificate examination. Presents Germany's role in a global economy. 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.

GER 4200
Advanced Business German
3:3:0 On Sufficient Demand
• Prerequisite: GER 3200 or equivalent
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. Prepares students to take the examination for the International Certificate of Business German (Pruefung Wirtschaftssdeutsch). 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.

JPNS 1010 LH
Beginning Japanese I
5:5:1 F
Covers basic pronunciation and grammar, simple conversation and Hiragana and Katakana reading and writing.

JPNS 1020 LH
Beginning Japanese II
5:5:1 Sp
• Prerequisite: JPNS 1010 or equivalent
Studies second-semester conversation. Includes culture study as well as speaking and listening with an appropriate degree of reading and writing.

JPNS 2010 LH
Intermediate Japanese I
5:5:1 F
• Prerequisite: JPNS 1020 or equivalent
Reviews and builds upon the grammar, reading, writing, and conversation skills learned in the first year courses. Emphasizes Kanji. Introduces readings and discussions on the history, culture, and literature of the Japanese world, maintaining a focus on oral proficiency.

JPNS 2020 HH
Intermediate Japanese II
3:3:1 Sp
• Prerequisite: JPNS 2010 or equivalent
Gives perspective on Japanese literature. Students expand reading and writing skills in the area. Emphasizes Kanji.

JPNS 211R
Conversational Japanese
2:2:1 On Sufficient Demand
• Prerequisite: JPNS 1020 or equivalent
Emphasizes conversation in different real-life situations. Focuses on related vocabulary and structures. Introduces a variety of readings and multimedia materials and promotes oral proficiency. A maximum of four hours may apply toward graduation. Recommended to be taken simultaneously with JPNS 2010 or JPNS 2020.

JPNS 3050
Advanced Japanese
3:3:0 On Sufficient Demand
• Prerequisite: JPNS 2020 or equivalent
For non-native Japanese speakers who have attained a fairly good mastery of basic Japanese and some Kanji reading skills. Focuses on the development of all language skills with emphasis on grammar review, reading and writing. Overviews Japanese culture and introduces Japanese literature.

LANG 1000 LH
English Literacy for Deaf Students
5:5:0 On Sufficient Demand
• Prerequisite: 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
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: Approval of Cooperative Coordinator
Designed for Language 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.

LANG 291R
Independent Study
1-3:0 to 3:0-12 Su, F, Sp
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 as ANTH 3000) LH
Language and Culture
3:3:0 On Sufficient Demand
• Prerequisite: ENGL 1010 and (ANTH 1010 or any foreign language 2010 course). Sophomore status required.
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 4200
Methods of Teaching a Foreign Language
3:3:0
• Prerequisite: Matriculation into any secondary education bachelor degree program or departmental approval
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.

PORT 1010 LH
Beginning Portuguese I
5:5:1 F, Sp
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.

PORT 1020 LH
Beginning Portuguese II
5:5:1 F, Sp
• Prerequisite: PORT 1010 or equivalent
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.

PORT 1050 LH
Intensive Portuguese for Spanish Speaker
5:5:1 On Sufficient Demand
• Prerequisite: 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 2010 LH
Intermediate Portuguese I
5:5:1 F
• Prerequisite: PORT 1020 or equivalent
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.

PORT 2020 HH
Intermediate Portuguese II
3:3:0 Sp
• Prerequisite: PORT 2010 or equivalent
Continuation of PORT 2010. Includes remaining grammar and language concepts, literature and cultural readings. Emphasizes literary readings, conversational exchanges as well as creative writing.

PORT 3050 LH
Advanced Portuguese
3:3:0 F, Sp
• Prerequisite: One year residency in Portuguese speaking country or placement test
For non-native Portuguese speakers with a fairly good mastery of basic Portuguese. Overviews basic Portuguese grammar with special emphasis on major concepts. Overviews Luso-Brazilian literatures and cultures.

PORT 3200
Business Portuguese
3:3:0 On Sufficient Demand
• Prerequisite: PORT 3050 or equivalent
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 3520
Brazilian Culture and Civilization
3:3:0 On Sufficient Demand
• Prerequisite: PORT 3050
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.

RUS 1010 LH
Beginning Russian I
5:5:1 F
Studies 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.

RUS 1020 LH
Beginning Russian II
5:5:1 F, Sp
• Prerequisite: RUS 1010 or equivalent
Studies second 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 communicate enough to visit or work in a Russian speaking country.

RUS 2010 LH
Intermediate Russian I
5:5:1 F
• Prerequisite: RUS 1020 or equivalent
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 Russia, maintaining a focus on oral proficiency.

RUS 2020 HH
Intermediate Russian II
3:3:0 Sp
• Prerequisite: RUS 2010 or equivalent
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.

RUS 3050 LH
Advanced Russian
3:3:0 F, Sp
• Prerequisite: RUS 2020 or equivalent
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.

SPAN 1010 LH
Beginning Spanish I
5:5:1 Su, F, Sp
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 conversational lab. Encourages computer and multimedia lab.

SPAN 1020 LH
Beginning Spanish II
5:5:1 Su, F, Sp
• Prerequisite: SPAN 1010 or equivalent
Includes the remaining 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.

SPAN 1500 LH
Spanish Travel Study
3:1:6 On Sufficient Demand
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 LH
Intermediate Spanish I
5:5:1 F, Sp
• Prerequisite: SPAN 1020 or equivalent
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.

SPAN 2020 HH
Intermediate Spanish II
3:3:0 F, Sp
• Prerequisite: SPAN 2010 or equivalent
Emphasizes reading, writing, and conversation skills through studies in literature. Media reading labs are available to help reading comprehension. Requires oral and written response.

SPAN 2050
Advanced Spanish Grammar and Composition
3:3:0 On Sufficient Demand
• Prerequisite: SPAN 2020 or equivalent
Explores the grammar of Spanish 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.

SPAN 3040
Introduction to Literary Genres in Spanish
3:3:0 On Sufficient Demand
• Prerequisite: SPAN 2050 or equivalent
Explores different literary genres in the Spanish language. Provides extensive opportunity for improvement in oral and reading/writing development of language skills. Completers should considerably improve their ability to express themselves in the foreign language. Taught entirely in Spanish.

SPAN 3050 LH
Advanced Spanish
3:3:0 Su, F, Sp
• Prerequisite: One-year residency in Spanish speaking country, or placement test
For non-native Spanish speakers who, as a result of foreign residency or similar exposure to the language, have attained a fairly good mastery of basic Spanish. Overviews the basic grammar of Spanish with special emphasis on major concepts, i.e., mastery of verb forms, object pro-

nouns, preterit vs. imperfect, use of the subjunctive, etc. (Approximately 50% of the course, which is fairly fast paced, is dedicated to the study of literature and culture. Individuals who prefer a slower-paced approach should consider taking SPAN 2010 and SPAN 2020, which, together will be somewhat equivalent to SPAN 3050.)

SPAN 3200 LH
Business Spanish
3:3:0 F, Sp
• Prerequisite: SPAN 3050 or equivalent
For those who plan to pursue careers in international business or related fields, learn the business language for Spanish, understand Spanish speaking cultures, or plan to major or minor in Spanish. Teaches Spanish business terminology and prepares students to take the Certificado de Espanol Comercial basico examination. Presents the role of Latin America and Spain in a global economy. Explores how students can effectively do business with Latin American and Spanish companies within the framework of Hispanic cultures. Includes current materials dealing with today's issues. Will be taught entirely in the Spanish language.

SPAN 3220
Pronunciation Phonetics and Phonology
3:3:0 On Sufficient Demand
• Prerequisite: SPAN 3040 or 3050
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.

SPAN 3510
Culture and Civilization—Spain
3:3:0 On Sufficient Demand
• Prerequisite: SPAN 3050 or equivalent
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 3520
Culture and Civilization—Latin America
3:3:0 On Sufficient Demand
• Prerequisite: SPAN 3050 or equivalent
Explores chronologically the cultural formation and development of Latin America. Completers should acquire an understanding of the ethnic development and linguistic history of Latin American countries and societies. Presentations and class instruction conducted entirely in Spanish.

SPAN 3610
Spanish Peninsular Literature to 1800
3:3:0 On Sufficient Demand
• Prerequisite: SPAN 3050 or equivalent
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
3:3:0 On Sufficient Demand
• Prerequisite: SPAN 3050 or equivalent
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
Latin American Literature to 1880
3:3:0 On Sufficient Demand
• Prerequisite: SPAN 3050 or equivalent
Introduces chronologically to 1880 representative Latin 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
Latin American Literature from 1880
3:3:0 On Sufficient Demand
• Prerequisite: SPAN 3050 or equivalent
Introduces chronologically from 1800 representative Latin 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 4050
Special Topics in Grammar Usage and Style
3:3:1 On Sufficient Demand
• Prerequisite: SPAN 3050
Reviews Spanish grammar focusing on problem areas. Explores grammar as deployed in different genres. Emphasizes writing in different styles. Completers should be able to identify styles in readings and compose according to certain styles.

SPAN 4200
Advanced Business Spanish
3:3:0 Sp
• Prerequisite: SPAN 3200
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 "Certificado Superior de Espanol de los Negocios" examination. Taught entirely in Spanish.

SPAN 4900
Capstone Seminar
3:3:0 On Sufficient Demand
• Prerequisite: Four upper division courses; Department chair approval
Explores and reviews comprehensively the undergraduate Spanish course work, providing instruction and testing in specific areas to verify student competency. Completion of a specific reading list required.

LEGAL STUDIES

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Faculty:

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- Ellen Hall Loveland
- Hugh J. Rode

Associate Professor
- W. Brent Bullock
- Curtis D. Fillmore
- Jill Jasperson

Assistant Professor
- Stott Harston
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Paralegal Studies Advisory Committee:
Chair: David Sam, Federal Judge, District Court; W. Brent Bullock, Legal Studies Faculty Member, UVSC; Steve Averett, Central Utah Bar Association President, Practicing Attorney, and J. Reuben Clark Law School Librarian; Jonathan Golightly, Paralegal, Altiris, Inc.; Grant L. Anderson, Federal Court Certified Interpreter; Denise B. Bird, Paralegal Supervisor, Nature's Sunshine Products, Inc.; Lesleigh Toews, Utah State Courts, Public Sector Paralegal.

Criminal Justice Advisory Committee:
Robert Kelshaw, Chief (Rt), University Police, BYU, Chairperson; David Bateman, Sheriff, Utah County Sheriff's Department; Wayne Dance, AUSA, United States Attorneys Office.

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Assistant Dean: Mikki O'Connor
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CAREER OPPORTUNITIES

For those trained as paralegals, many opportunities exist for employment in traditional private law firms, federal or state governmental agencies, legal departments of corporations, banks, insurance companies and other businesses, such as title companies, mortgage companies, law libraries, legal service/legal aid offices, legal clinics, law offices handling criminal defense or prosecution work, and law departments of special interest groups or associations. Paralegals are non-lawyers who work under the close supervision of attorneys.

For those trained in criminal justice, opportunities exist in law enforcement, DEA agent, FBI agent, corrections officer, security officer, private investigator, game law enforcement officer, immigration inspector, Alcohol/Tobacco/Firearms inspector, United States trustee, Internal Revenue officer, Border Patrol agent, Consumer Safety inspector, and other fields depending on chosen option.

The UVSC Legal Studies Department has the only paralegal training program in Utah approved by the American Bar Association.

PROGRAMS

Students in Legal Studies may receive certification in the Utah Law Enforcement Academy; an Associate in Science Degree in Criminal Justice or Paralegal Studies; a Bachelor of Science Degree in Criminal Justice or Paralegal Studies.

ADMISSION REQUIREMENTS

In addition to applying for admission to Utah Valley State College, paralegal students must meet the following admission requirements:

1. Submit Compass Test scores to the Legal Studies advisor for evaluation. Applicants who score below the required level must register for additional courses in English, reading and/or math.
2. Meet with the Legal Studies advisor.

Cooperative Education

Cooperative education or an internship is required for paralegal students. A total of eight credits may be applied toward graduation.

Department objectives for paralegal majors:

1. Every paralegal student must be competent in legal research, litigation, document production, and interviewing.
2. Advanced technology is prevalent in most law offices; and legal assistants are required to not only be computer literate, but also be able to use software, to develop specific computer applications, to handle spreadsheet analyses, and to conduct database searches.
3. Students are able to select advanced classes in legal specialty areas that appeal to them.
4. Students are required to have actual work experience as part of their training.
5. Students should demonstrate high ethical standards and conduct.

Law Enforcement Academy

Director: Steve DeMille
Office: WB 254
Telephone: 801-863-8062
E-mail: demillst@uvsc.edu

Utah Valley State College 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 reserve officers, corrections, or special function officers. The second module continues with training for certification of an officer with full police powers (police, deputy sheriff, Utah Highway Patrol).

AA/AS PRE MAJOR IN CRIMINAL JUSTICE — 60 CREDITS

General Education Requirements:			35 Credits
• Complete General Education requirements as detailed in the General Education section of this catalog.			
Discipline Core Requirements:			15 Credits
• CJ	1010	Introduction to Criminal Justice	3
• CJ	1340	Criminal Investigations	3
• CJ	1350	Introduction to Forensic Science	3
• CJ	1330	Criminal Law	3
• CJ	2350	Laws of Evidence	3
Elective Requirements:			10 Credits
• For AS degree: Electives may consist of any Criminal Justice (CJ) or Paralegal (LEGL) course that is not part of the core requirements.			10
or For the AA degree: Must be Foreign Language			10

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 UVSC
4. Completion of GE and specified departmental requirements
5. Must have a grade of C- or higher in all core and elective requirements
6. For the AA degree, completion of 10 credit hours of course work from one language

AS PRE MAJOR IN PARALEGAL STUDIES — 62 CREDITS

General Education Requirements:			35 Credits
• Complete General Education requirements as detailed in the General Education section of this catalog.			
Discipline Core Requirements:			21 Credits
• LEGL	1000	Law and the Paralegal	3
• LEGL	1110	Civil Litigation and Preparation	4
• LEGL	1220	Legal Research in the Library	3
• CJ	1330	Criminal Law	3
• LEGL	2190	Legal Ethics	2
• LEGL	2300	Computerized Legal Research	3
• LEGL	2330	Computer Applications in the Law	3
Elective Requirements:			6 Credits
• Electives may consist of ISYS 1050 and any Paralegal (LEGL) course that is not part of the core requirements.			6

Graduation Requirements:
1. Completion of a minimum of 62 semester credits
2. Overall grade point average of 2.0 (C) or above with a grade of "C+" or higher in all core and elective requirements
3. Residency hours: Minimum of 20 credit hours through course attendance at UVSC; at least 12 of these credits must be in LEGL or CJ courses.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.

BS IN CRIMINAL JUSTICE — 120 CREDITS

General Education Requirements:			35 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	3

BS IN CRIMINAL JUSTICE (CON'T) 120 CREDITS

or ENGL 2020 Intermediate Writing—Science and Technology

Complete one of the following: 3
- MATH 1030 Quantitative Reasoning (recommended for Humanities or Arts majors)
- MATH 1040 Introduction to Statistics (recommended for Social Science majors)
- MATH 1050 College Algebra (recommended for Business, Education, Science, and Health Professions majors)
- One course that requires Math 1050 as a prerequisite (excluding MATH 1060)
- An Advanced Placement (AP) Mathematics Test with a score of 3 or higher

Complete one of the following: 3
- HIST 1700 American Civilization
- HIST 2700 US History to 1877

and HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness

or PES 1097 Fitness for Life 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: 52 Credits
- CJ 1010 Introduction to Criminal Justice 3
- CJ 1340 Criminal Investigations 3
- CJ 1350 Introduction to Forensic Science 3
- CJ 1300 Introduction to Corrections Process 3
- CJ 2330 Juvenile Justice 3
- CJ 2350 Laws of Evidence 3
- CJ 1330 Criminal Law 3
- CJ 3270 Criminology 3
- CJ 3300 Victimology 3
- CJ 3400 Drugs and Crime 3
- PSY/SOC 3010 Statistics for the Behavioral Sciences 4
- CJ 4160 Constitutional Rights and Responsibilities 3
- CJ 4200 Ethical Issues in Criminal Justice 3
- CJ 4700 Comparative Criminal Justice Systems 3
- CJ 4880 Qualitative Research Methods in Criminal Justice 3
- CJ 4990 Criminal Justice Seminar 3
- ISYS 1050 Basic Computer Applications 3

or Business Computer Proficiency Exam*

Specialty Core Requirements: 15 Credits

Law Enforcement Option 15
- CJ 1390 Police Field Operations
- CJ 3020 Criminal Justice Management
- CJ 3040 Community Policing
- CJ 3390 Traffic Theory
- Elective (choose from upper-division CJ courses)

Corrections Option 15
- CJ 3020 Criminal Justice Management
- CJ 3060 Corrections in the Community
- CJ 3140 Corrections Law
- CJ 3360 Prisons—Contemporary Issues & Dilemmas
- Elective (choose from upper-division CJ courses)

Criminal Law Option 15
- Upper-division LEGL courses

Elective Requirements: 18 Credits
- Complete any 1000 course or higher 18

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 core and elective courses.
3. Residency hours: Minimum of 30 credit hours through course attendance at UVSC, 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.

BS IN CRIMINAL JUSTICE (CON'T) 120 CREDITS

Note:
*Students will be required to complete the business computer proficiency exam with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher in each of the six modules.

MINOR IN CRIMINAL JUSTICE 24 CREDITS

Mariculation Requirements:
1. Admitted to a bachelor degree program at UVSC.

Discipline Core Requirements: 12 Credits
- CJ 1010 Introduction to Criminal Justice 3
- CJ 1340 Criminal Investigations 3
- CJ 1330 Criminal Law 3
- CJ 2350 Laws of Evidence 3

Elective Requirements: 12 Credits
- Choose 12 credits from any CJ upper-division courses 12

Graduation Requirements:
1. Overall grade point average of 2.5 in all School of Business (CJ) courses and no grade lower than a C- in CJ specialty core and elective courses.

BS IN PARALEGAL STUDIES 120 CREDITS

General Education Requirements: 35 Credits
- ENGL 1010 Introduction to Writing 3
- ENGL 2010 Intermediate Writing—Humanities/Social Science 3

or ENGL 2020 Intermediate Writing—Science and Technology

Complete one of the following: 3
- MATH 1030 Quantitative Reasoning (recommended for Humanities or Arts majors)
- MATH 1040 Introduction to Statistics (recommended for Social Science majors)
- MATH 1050 College Algebra (recommended for Business, Education, Science, and Health Professions majors)
- One course that requires Math 1050 as a prerequisite (excluding MATH 1060)
- An Advanced Placement (AP) Mathematics Test with a score of 3 or higher

Complete one of the following: 3
- HIST 1700 American Civilization
- HIST 2700 US History to 1877

and HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness

or PES 1097 Fitness for Life 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: 66 Credits
- ISYS 1050 Basic Computer Applications 3
- MGMT 2250 Job Application and Advancement Procedures 1

or MGMT 3890 Career Preparation
- LEGL 1000 Law and the Paralegal 3
- LEGL 1110 Civil Litigation and Preparation 4
- LEGL 1220 Legal Research in the Library 3
- CJ 1330 Criminal Law 3
- LEGL 2190 Legal Ethics 2
- LEGL 2300 Computerized Legal Research 3
- CJ 2350 Laws of Evidence 3
- LEGL 2330 Computer Applications in the Law 3
- LEGL 3000 Business Law 3
- LEGL 489 R Internship 2
- CJ 4160 Constitutional Rights and Responsibilities 3
- SOC 3200 Race and Minority Relations 3
- LEGL 3320 Family Law 3
- LEGL 4150 Probates and Estates 3

Area of Specialization:
Any LEGL course (Pre-approved by Advisor; 12 credit hours must be upper-division courses; must be completed with a grade of "C+" or better) 21

Elective Requirements: 19 Credits
- ELECTIVES (Pre-approved by Advisor; 9 credits must be upper-division.) 19

BS IN PARALEGAL STUDIES (CON'T) 120 CREDITS

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 with a grade of "C+" or higher in all core and elective courses.
3. Residency hours: Minimum of 30 credit hours through course attendance at UVSC, 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.

MINOR IN PARALEGAL STUDIES 23 CREDITS

Matriculation Requirements:
1. Admitted to bachelor degree program at UVSC.

Discipline Core Requirements: 14 Credits
- LEGL 1000 Law and the Paralegal 3
- LEGL 1220 Legal Research in the Library 3
- LEGL 2190 Legal Ethics 2
- LEGL 2300 Computerized Legal Research 3
- LEGL 3000 Business Law 3

Elective Requirements: 9 Credits

Choose 9 credits from the following: 9
- LEGL 3150 Survey of Dispute Resolution
- LEGL 3320 Family Law
- LEGL 3530 Employment and Labor Law
- LEGL 3650 Torts and Personal Injury Law
- LEGL 4130 Bankruptcy and Collections
- LEGL 4150 Probates and Estates
- LEGL 4160 Contract Law

Graduation Requirements:
1. Overall grade point average of 2.5 in all School of Business (LEGL) courses and no grade lower than a C+ in LEGL specialty core and elective courses.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

CJ 1010 SS
Introduction to Criminal Justice
3:3:0 Su, F, Sp

Presents the processes, institution, and administration of criminal justice in the United States. Examines the crime problem and criminal law. Discusses criminal law, law enforcement, criminal prosecution, criminal defense, bail, the jury system, and sentencing. Explores the correctional system; namely, probation, prisons, inmates' rights, and parole.

CJ 1300
Introduction to Corrections Process
3:3:0 F

- Prerequisite: CJ 1010 and ENGL 1010

Introduces the corrections system. Includes origin and evolution, philosophies of corrections, perspectives on sentencing, and alternatives to incarceration. Includes community corrections, probation and parole, offender rights and legal issues; adult, juvenile, and special needs offenders; corrections specialists, staff and administration as a profession and special challenges for the future.

CJ 1330
Criminal Law
3:3:0 Su, F, Sp
• Prerequisite: LEGL 1000 or CJ 1010
Provides an overview of criminal law and procedures. Covers history and terminology of the criminal justice system, the elements of specific offenses, and the role of the paralegal in the fact-gathering process.

CJ 1340
Criminal Investigations
3:3:0 F, Sp
• Prerequisite: CJ 1010 and ENGL 1010
Introduces criminal investigation including necessary functions of interviewing witnesses and suspects, preservation and collection of evidence, and crime scene processing including post-crime scene processing of evidence.

CJ 1350
Introduction to Forensic Science
3:3:0 F, Sp
• Prerequisite: CJ 1010
Studies the importance of proper identification, collection and preservation of physical evidence. Teaches laboratory techniques and services available to the law enforcement professional as they relate to physical evidence.

CJ 1390
Police Field Operations
3:3:0 Sp
• Corequisite: CJ 1010
Explores patrol and basic field procedures, observation and perception along with police communications. Teaches field note-taking, crime scene recording, and the art of interviewing. Emphasizes patrol assignments, crimes in progress, preliminary investigations, traffic direction and enforcement, arrest, search, custody, stress survival and the use of force, community policing, and problem solving.

CJ 1800
POST Module I
7:7:0 Su, F
• Prerequisite: Permission Required
May count as elective credit toward an AS or BS in criminal justice for completion of Module I of the Peace Officer Standards and Training (POST) certification. Includes career orientation, criminal and traffic laws, and the proper means of enforcing them. Ethics and professionalism as well as police-community relations are emphasized.

CJ 1810
POST Module II
11:11:0 Sp
• Prerequisite: CJ 1800, Permission Required
May count as elective credit toward an AS or BS in criminal justice for completion of Module II of the Peace Officer Standards and Training (POST) certification. Completes all law enforcement training required by the state of Utah to become certifiable in this career field. Emphasizes firearms, emergency vehicle operation, and arrest control techniques. Students conduct investigations, prepare reports, and experience testimony in a moot court.

CJ 2110
Security Management and Loss Prevention
3:3:0 Sp
• Prerequisite: CJ 1010
Examines external and internal plant 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 2330
Juvenile Justice
3:3:0 Sp, F
• Prerequisite: CJ 1010
Provides students with 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. Also examines closed juvenile institutions, juvenile probation and parole as well as alternative placement such as group homes.

CJ 2350
Laws of Evidence
3:3:0 F, Sp
• Prerequisite: CJ 1330
Covers principles and practice of the law of evidence. Teaches legal issues including admissibility of evidence, judicial notice, burdens of proof, hearsay, documentary evidence, evidentially privileges and witnesses.

CJ 281R
Cooperative Work Experience
2-8:0:10-40 Su, F, Sp
• Prerequisite: Approval of School of Business Career and Corporate Manager
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.

CJ 2920
Short-Course Workshop
1-3:1-3:3-9 On Sufficient Demand
The specific title with the credit authorized for the particular offering will appear in the semester schedule and on the student transcript.

CJ 3020
Criminal Justice Management
3:3:0 Sp
• Prerequisite: ENGL 2010 or ENGL 2020 and CJ 1010
Presents value systems inherent in modern criminal justice management including work environment, motivation, leadership, morale, discipline, evaluation, planning, and functioning of line and staff. Studies issues such as control, authority, power, influence, and leadership as they relate to a criminal justice agency. Examines concept of change and individual's potential for leadership.

CJ 3040
Community Policing
3:3:0 F
• Prerequisite: CJ 1390 and ENGL 2010 or ENGL 2020
Studies community policing and effective crime and accident prevention. Emphasizes police citizen teamwork and creative solutions to problems within the community. Presents methodologies of problem solving through ongoing analysis, response, and assessment.

CJ 3060
Corrections in the Community
3:3:0 F
• Prerequisite: CJ 1300 and ENGL 2010 or ENGL 2020
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 3100
Criminal Profiling
3:3:0 F
• Prerequisite: CJ 1330, ENGL 2010 or ENGL 2020
Introduces process of reviewing and assessing the behavioral facts of a violent criminal act from a law enforcement and/or investigative perspective.

CJ 3140
Corrections Law
3:3:0 Sp
• Prerequisite: CJ 3060 and ENGL 2010 or ENGL 2020
Exposes students to 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
3:3:0 F
• Prerequisite: CJ 1330, ENGL 2010 or ENGL 2020
Studies the definition of crime and the difficulties inherent in crime prevention and control. Develops methods to overcome stereotypes, biases and preconceptions.

CJ 3300
Victimology
3:3:0 Sp
• Prerequisite: CJ 1340 and ENGL 2010 or ENGL 2020
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 3360
Prisons—Contemporary Issues and Dilemmas
3:3:0 Sp
• Prerequisite: CJ 1330 and ENGL 2010 or ENGL 2020
Studies the troubled history of the corrections system. Targets current problems and explores possible solutions to those problems.

CJ 3390
Traffic Theory
3:3:0 Su
• Prerequisite: CJ 3040 and (ENGL 2010 or ENGL 2020)
Studies the role of law enforcement in highway safety. Discusses the background of highway safety. Teaches how to enforce, through administration, highway-related law enforcement issues and problems.

CJ 3400
Drugs and Crime
3:3:0 F, Sp
• Prerequisite: CJ 1010 and ENGL 2010 or ENGL 2020
Presents historic, economic, and political roles of illegal drugs, their production and distribution systems. Investigates the impact that drug use has on crime, accidents, and criminal justice. Studies global, national, and local strategies to curtail drug distribution.

CJ 4060
Special Problems in Criminal Justice
3:3:0 On Sufficient Demand
• Prerequisite: Acceptance into the Criminal Justice Bachelor Degree Program and Senior Standing
Presents causes and prevention of white collar and organized crime. Studies gangs and the way they establish their bases as well as other current interest topics selected by the instructor.

CJ 4160
Constitutional Rights and Responsibilities
3:3:0 F, Sp
• Prerequisite: CJ 1330, ENGL 2010 or ENGL 2020 and Matriculation into the BS Criminal Justice Program
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
3:3:0 F, Sp
• Prerequisite: CJ 1330, ENGL 2010 or ENGL 2020 and Matriculation into the BS Criminal Justice Program
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 4700
Comparative Criminal Justice Systems
3:3:0 F
• Prerequisite: CJ 1330, ENGL 2010 or ENGL 2020 and Matriculation into the BS Criminal Justice Program
Studies local, county, state, and federal law enforcement systems, their operation and areas of jurisdiction. Compares foreign and United States criminal justice systems. Presents opportunities available in criminal justice areas.

CJ 482R
Internship
2-8:0:10-40 Su, F, Sp
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. Completers should be qualified to work in the Criminal Justice profession.

CJ 487R
Criminal Justice Field Experience
1-6:1-5:3-15 On Sufficient Demand
• Prerequisite: Junior or Senior status required
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 six hours of credit.

CJ 4880
Qualitative Research Methods in Criminal Justice
3:3:0 F, Sp
• Prerequisite: Senior Status Required and Acceptance into the Bachelor's Degree Program
Presents the types of research in which criminal justice educators and practitioners engage. Emphasizes 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
1-3:1-3:3-9 On Sufficient Demand
• Prerequisite: Junior or Senior status required
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 nine credits.

CJ 4990
Criminal Justice Senior Seminar
3:3:0 F, Sp
• Prerequisite: Acceptance into the Criminal Justice Bachelor Degree Program and Senior Standing
Explores selected issues and dilemmas surrounding the criminal justice field. Develops oral and written communication skills. Includes guest speakers, research, and resume writing.

LEGL 1000
Law and the Paralegal
3:3:0 F, Sp
• Corequisite: ISYS 1050
Required for Paralegal majors. Studies educational training, job skills, and personal qualities needed to become a successful Paralegal. Examines the structure of the American court system, alternative dispute resolutions, administrative law, civil and criminal law and procedures, legal research, analysis and writing.

LEGL 1010
Survey of Law
3:3:0 On Sufficient Demand
Covers the history and development of present-day law practice, including specialized areas of practice. Completers should be able to describe the American court system, know and use legal vocabulary, have a basic understanding of different substantive areas of law.

LEGL 1110
Civil Litigation and Preparation
4:4:0 F, Sp
• Prerequisite: LEGL 1000, ENGL 1010
Overviews court system, emphasizing the Utah State Courts, civil procedural and evidentiary rules, and stages of civil litigation. Emphasizes the paralegal's role in investigation, preparation, and resolution of lawsuits.

LEGL 1220
Legal Research in the Library
3:3:0 F, Sp
• Prerequisite: ENGL 1010, LEGL 1000
• Corequisite: LEGL 1110
Familiarizes students with the law library. Provides instruction in the variety, use, and interrelationships of basic legal research materials and methodology. Emphasizes manual legal research methods. Uses primary and secondary legal research sources. Minimum of C required for graduation.

LEGL 2180
Administrative Law and Advocacy
3:3:0 On Sufficient Demand
• Prerequisite: LEGL 1000 and LEGL 1110
Covers the Administrative Procedure Act of 1946 and the role, purpose, rules, regulations, procedures and authority of administration agencies. Identifies the route for review of administrative decisions. Includes lecture and out-of-class projects.

LEGL 2190
Legal Ethics
2:2:0 Sp
• Prerequisite: LEGL 1000
Explores common historical theories of law and ethical standards for legal assistants and attorneys. Examines unauthorized practice of law, confidentiality, and other standards of conduct. Emphasizes the American Bar Association and the Utah Rules of Professional Conduct. Includes film presentations, guest speakers and group projects. Completers should be able to recognize and observe ethical standards of conduct for legal assistants with employers, clients, co-workers and the general public.

LEGL 2300
Computerized Legal Research
3:3:0 F, Sp
• Prerequisite: LEGL 1220, ISYS 1050
Covers legal analysis, a research plan development and database, computerized legal research, and legal writing. Includes case briefing and writing internal and external legal memoranda. Minimum of C grade required for

graduation. Prepares students for WEST LAW and LEXIS certification.

LEGL 2330
Computer Applications in Law
3:3:0 F, Sp
• Prerequisite: LEGL 1000, LEGL 2300, ISYS 1050
Introduces computer technology and its application within the law firm. Teaches the use of computers in paralegal functions in litigation support, case management applications and production of settlement brochures. Includes lab experience using computers and simulated case problems. Completers should be qualified to work in jobs requiring case management and automated litigation support.

LEGL 2410
Law and Banking
2:2:0 On Sufficient Demand
Provides an understanding of banking law including sources of law, bank regulators, court systems, torts and crimes, legal entities of business organizations, contracts, real and personal properties, bankruptcies, and the legal implications of consumer lending. Includes lectures, discussions, and case studies.

LEGL 281R
Cooperative Work Experience
2-8:0:10-40 Su, F, Sp
• Prerequisite: Approval from School of Business Career and Corporate Manager
Designed for paralegal majors to provide on-the-job work experience on a paid basis that will utilize the student's skills and abilities in the fields of law, law office, or other approved law related situations. 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.

LEGL 290R
Law Society
1:1:0 F, Sp
Elective credit for students interested in law or law-related professions. Provides a program of activity relating to current legal issues, encouraging social awareness and developing law and civic consciousness. Students arrange for guest speakers from the legal and criminal justice professions to present information concerning their professions. Teaches leadership skills by serving on committees. Pass/Fail grade issued. Paralegal majors and criminal justice majors may repeat this course for a total of three elective credits towards graduation.

LEGL 3000
Business Law
3:3:0 Su, F, Sp
• Prerequisite: ENGL 1010
For School of Business students and others desiring a more complete understanding of business law. 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.

LEGL 3020
Cyber Law
3:3:0 On Sufficient Demand
• Prerequisite: (ENGL 2010 or ENGL 2020) and (LEGL 1000 or CNS 1000)
For CNS majors; elective for School of Business majors. Presents a history of computing. Teaches legislation and case law concerning computers, professional responsibilities, risks, and liabilities. Discusses intellectual property rights and responsibilities pertaining to computers. Uses lectures; group, oral, and written presentations; and out-of-class assignments.

LEGL 3100
Hospitality Law
3:3:0 F
• Prerequisite: ENGL 2010 or ENGL 2020
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.

LEGL 3130
Real Estate Principles and Finance
3:3:0 On Sufficient Demand
Fulfills the 45-hour requirement for the multi-state portion of the Utah State Real Estate Sales Examination. Includes the nature of real property, estates in land, transfer of real property rights, encumbrances, public restrictions, and contracts. Discusses agency, ethics, brokerage functions, property management, economics, real estate finance, appraisal and construction, federal regulations, math and escrow/closing statements. Includes lectures, class, class discussions and videos. This course and LEGL 3140 are needed to take the entire exam.

LEGL 3140
Utah Real Estate Law
3:3:0 On Sufficient Demand
Fulfills the 30-hour requirement for the Utah portion of the Utah State Real Estate Sales Examination. Includes real estate purchase agreements, Utah licensing laws, disciplinary proceedings, penalties, property taxes, and land use. Covers instruments of finance, lien laws, and landlord-tenant laws. Includes lectures, class discussions, and videos. This course and LEGL 3130 are needed to take the entire exam.

LEGL 3150 (Cross-listed as PSY 3150)
Survey of Dispute Resolution
3:3:0 F
• Prerequisite: LEGL 1000 or PSY 1010 or SOC 1010
Offers an introduction to the most commonly practiced dispute resolution processes, including negotiation, mediation, arbitration, and litigation. Studies conflict resolution theory and explores contemporary dispute resolution policy issues. Involves participation in simulations of various dispute resolution processes, including interviewing and counseling, negotiation, mediation, and arbitration.

LEGL 3250 (Cross-listed as POLS 3250)
Introduction to Law and Politics
3:3:0 F
• Prerequisite: POLS 1010 or Instructor Approval
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.

LEGL 3320
Family Law
3:3:0 F
• Prerequisite: LEGL 1000, ENGL 2010 or ENGL 2020
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.

LEGL 3410 (Cross-listed as COMM 3410, PSY 3410)
Fundamentals of Mediation and Negotiation
3:3:0 F
• Prerequisite: LEGL 1000 or PSY 1010 or SOC 1010 or COMM 1050
Prepares students to understand and participate knowledgeably on a basic level in the processes of mediation and negotiation. Improves 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.

LEGL 3530 (Cross-listed as MGMT 3530)
Employment and Labor Law
3:3:0 F
• Prerequisite: ENGL 2010 or ENGL 2020
Covers employment and labor law, cases, and policy. Includes employment discrimination along with labor relations statues 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.

LEGL 3650
Torts and Personal Injury Law
3:3:0 Sp
- Prerequisite: LEGL 1000, LEGL 1110, ENGL 2010 or ENGL 2020

Provides instruction in theory and practice of Tort and Personal Injury Law. Successful completers should know and use legal vocabulary and demonstrate an understanding of Tort and Personal Injury Law.

LEGL 3800 (Cross-listed as ACC 3800)
Fraud Examination
3:3:0 On Sufficient Demand
- Prerequisite: ACC 2010 and ACC 2020

Introduces accounting and business students to the seriousness of fraud and its impact on business and society. Examines the elements of fraud, detection, prevention, and resolution.

LEGL 3890
Certified Legal Assistant Preparation
3:3:0 Sp
- Prerequisite: LEGL 2300 and ENGL 2010 or ENGL 2020

Acquaints students with Certified Legal Assistant exam prerequisites and preparation strategies. Reviews all required sections of the exam which include legal terminology, communications, legal ethics, judgment and analytical ability, legal research, human relations and interviewing techniques, and general law. Also covers some elective law portions of the exam which might include administrative law, bankruptcy law, business organizations, contract law, criminal law, estate planning and probate, family law, litigation, real estate law. Successful completers should be prepared to sit for the CLA Exam.

LEGL 4100 (Cross-listed as COMM 4100, PSY 4100)
Advanced Mediation and Negotiation
3:3:0 Sp
- Prerequisite: LEGL 3410 or PSY 3410 or COMM 3410

Prepares students to perform at an advanced level in the processes of mediation and negotiation. Builds on the fundamentals learned in the basic course, improves knowledge of both processes, and sharpens practical skills and effectiveness as a mediator or negotiator. Uses an interactive-workshop format that blends theory with simulated class role-play.

LEGL 4130
Bankruptcy and Collections
3:3:0 Sp
- Prerequisite: LEGL 1000, LEGL 1110 and ENGL 2010 or ENGL 2020 and Matriculation into the Bachelor's Degree Program

Covers collection of debts and the discharge of certain financial obligations in bankruptcy, including Chapter 7, 11, and 13 filings. Utilizes lecture and practical experience in the preparation of collection and bankruptcy documents. Teaches basic collections, bankruptcy law, drafting collections, bankruptcy pleadings, and schedules.

LEGL 4150
Probates and Estates
3:3:0 F
- Prerequisite: LEGL 1000, LEGL 1110 and ENGL 2010 or ENGL 2020 and Matriculation into the Bachelor's Degree Program

Examines purpose and methods of estate planning and the function of the legal assistant in the probate of an estate. Includes lectures and out-of-class projects. Completers should be able to draft simple wills, prepare court documents and correspondence necessary for an estate administration, and prepare basic tax forms.

LEGL 4160
Contract Law
3:3:0 Sp
- Prerequisite: LEGL 3000 and ENGL 2010 or ENGL 2020 and Matriculation into the Bachelor's Degree Program

Provides a functional approach to the Law of Contracts. Teaches analyzing contract problems through a five-step paradigm.

LEGL 4200 (Cross-listed as PSY 4200)
Domestic Mediation
3:3:0 F
- Prerequisite: LEGL 3410 or PSY 3410 or instructor approval

Prepares students to understand and participate knowledgeably and effectively in the process of domestic mediation. Improves conceptual knowledge about and understanding of the domestic mediation process as well as improving practical negotiation and mediation skills. Utilizes a highly interactive workshop format that blends theory with practice in simulated class role plays.

LEGL 489R
Internship
2-8:0:10-40 F, Sp, Su
- Prerequisite: Approval from School of Business Career and Corporate Manager

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.

LINEMAN TECHNOLOGY

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Instructor
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Advisory Committee: David Atkinson, Provo City Power; Brent Thomas, Bountiful City Light; Garth Turley, City of Logan; Leon Fredrickson, Springville City Power; Jim Brass, M&E; Byron Howells, Riter Engineering; Ken White, Murray City.

School of Computing, Engineering and Technology
Dean: Tom McFarland
Office: CS 720b
Telephone: 801-863-8995

CAREER OPPORTUNITIES

Today both men and women are training for jobs in the electrical trades — power generation, transmission, and distribution. Technicians may work in different types of jobs within the lineman trades. They may work in generating plants, or within the telecommunication industry, or installing overhead and/or underground fiber optic cables. They may be required to interpret and use electrical and electronic test equipment. They may work in substations with large power transformers, relaying equipment, voltage regulators, instrument transformers, and oil circuit breakers.

They may perform duties as electrical inspectors and consultants. They use blue prints, wiring diagrams, schematics and circuits of all types for troubleshooting, repair, and maintenance or installation of electrical components. They may be required to work in power transmission and distribution, installation and line maintenance, and line equipment with voltage from 120 volts to 500 KV. They may learn the techniques of live line maintenance to maintain continuity of service to the customer. They may be involved in residential, commercial, and industrial metering and may maintain and calibrate the metering equipment.

PROGRAMS

Three options are available: Diploma, Associate in Applied Science Degree, and the Bachelor of Science in Technology Management Degree.

DIPLOMA IN LINEMAN TECHNOLOGY — 54 CREDITS

Discipline Core Requirements:			54 Credits
• ENGL	106A	Career Writing for Technology - A	2
• LINE	1110	Lineman DC Theory and Lab	4
• LINE	1120	Residential Wiring	2
• LINE	1130	Lineman Applied DC Math	3
• LINE	1140	Basic Skill Development and Safety	4
• LINE	1210	AC Theory and Transformer Applications	4
• LINE	1220	Commercial Wiring	2
• LINE	1230	Lineman Applied AC Math	3
• LINE	1240	Single/Three-Phase Lines and Safety	4
• LINE	2310	Powerline Technician and Safety Code I	4
• LINE	2320	Industrial Wiring	2
• LINE	2330	Single and Polyphase Metering	2
• LINE	2340	Three-Phase Lines and Safety	5
• LINE	2410	Powerline Technician and Safety Code II	4
• LINE	2430	Substation Equipment	4
• LINE	2440	High Voltage, Substation and Safety	4
• Social/Behavioral Science			1

Graduation Requirements:
1 Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA).

AAS IN LINEMAN TECHNOLOGY — 64 CREDITS

General Education Requirements:			16 Credits
• English (ENGL 1060 recommended)			3
• LINE	1130	Lineman Applied DC Math*	3
• 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:			**48 Credits**
• LINE	1110	Lineman DC Theory and Lab	4
• LINE	1120	Residential Wiring	2
• LINE	1140	Basic Skill Development and Safety	4
• LINE	1210	AC Theory and Transformer Applications	4
• LINE	1220	Commercial Wiring	2
• LINE	1230	Lineman Applied AC Math	3
• LINE	1240	Single/Three-Phase Lines and Safety	4
• LINE	2310	Powerline Technician and Safety Code I	4
• LINE	2320	Industrial Wiring	2
• LINE	2330	Single and Polyphase Metering	2
• LINE	2340	Three-Phase Lines and Safety	5
• LINE	2410	Powerline Technician and Safety Code II	4
• LINE	2430	Substation Equipment	4
• LINE	2440	High Voltage, Substation and Safety	4

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 UVSC.
4 Completion of GE and specified departmental requirements.

NOTE:
ENGL 1060, LINE 1130, and LINE 1230 do not meet the General Education requirements for an AS/AA.

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Lineman Technology

Specialty Core Requirements:			51 Credits
• LINE	1110	Lineman DC Theory and Lab	4
• LINE	1120	Residential Wiring	2
• LINE	1130	Lineman Applied DC Math	3
• LINE	1140	Basic Skill Development and Safety	4
• LINE	1210	AC Theory and Transformer Applications	4
• LINE	1220	Commercial Wiring	2
• LINE	1230	Lineman Applied AC Math	3
• LINE	1240	Single/Three-Phase Lines and Safety	4
• LINE	2310	Powerline Technician and Safety Code I	4
• LINE	2320	Industrial Wiring	2
• LINE	2330	Single and Polyphase Metering	2
• LINE	2340	Three-Phase Lines and Safety	5
• LINE	2410	Powerline Technician and Safety Code II	4
• LINE	2430	Substation Equipment	4
• LINE	2440	High Voltage, Substation and Safety	4

NOTES:
No upper division Technology Management (ie Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

LINEMAN APPRENTICESHIP

The Lineman Apprentice courses are offered for Linemen Apprentices to complete the Federal Bureau of Apprenticeship and Training's other- related instruction requirements. See Apprenticeship section of the catalog for Lineman Apprentice classes. The Lineman Apprentice courses may substitute for a portion of the Lineman Technology Program requirements for an AAS Degree. For further information contact the Lineman Advisor.

Due to the technical nature of the material in the following courses, additional reading and math instruction may be required. More information will be given during advisement.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

LINE 1000
Survey of Lineman Technology
2:2:0 **Not 05-06**
An introductory course for those interested in the electrical field with an emphasis on the electrical

utility trades. Gives a general overview of the lineman trade and its general course of study. Provides some hands-on experience in wiring procedures, pole framing, circuit testing procedures, and transformer connections.

LINE 1110
Lineman DC Theory and Lab
4:1:9 F
For students in Lineman Technology and as an elective for persons employed in the field as a lineman apprentice or journeymen wanting to update their skills. Covers the basic concepts and theories of DC circuits. Includes components used in DC circuitry and also the tools and equipment used in setting up and checking circuits. Discusses use and care of tools. Emphasizes safety to individual using and testing the equipment. Includes setting up direct current circuits, using meters to check resistance, voltage and amperage. Covers the construction of overhead line, installing anchors, down guys, poles, and conductors.

LINE 1120
Residential Wiring
2:1:3 F
For students in Lineman Technology as well as apprentice linemen or journeymen wanting to update their skills. Covers house wiring procedures. Includes basic material, installation, and tools. Studies applicable national electric, state, and local electric code sections. Completers should be able to wire a simple building.

LINE 1130
Lineman Applied DC Math
3:3:0 F
For students in Lineman Technology as well as apprentice linemen presently working in the trade. Solving of direct current, series, parallel, and complex circuits using Kirchhoff's Law. Uses Ohm's Law with electrical resistance, amperage, and voltage. Emphasis will be placed on classroom lectures. Stresses proper sizes of conductors and understanding basic wire properties.

LINE 1140
Basic Skill Development and Safety
4:0:12 F
For students in Lineman Technology as well as apprentice linemen working in the trade. Covers basic instruction in care and proper use of climbing equipment. Introduces the use of equipment used in line construction, and safe working procedures. Includes demonstrations and hands-on lab projects.

LINE 1210
AC Theory and Transformer Applications
4:1:9 Sp
• Prerequisite: LINE 1110 or departmental approval
For Lineman Technology majors as well as apprentice linemen or journeymen wanting to update their skills. Covers basic construction and theory of inductance, capacitors, and resistance in dealing with AC circuits used in the electrical field. Emphasizes hands-on lab experience. Studies theory of transformers and transformer connection in single transformers and in three-phase bank of transformers.

LINE 1220
Commercial Wiring
2:2:0 Sp
• Prerequisite: LINE 1120 or departmental approval
For Lineman Technology majors and apprentice lineman currently working in the trade. Studies commercial building plans, specifications, and the applicable codes (national, state, and local) that apply. Addresses correct wiring procedures and identification of materials needed.

LINE 1230
Lineman Applied AC Math
3:3:0 Sp
• Prerequisite: LINE 1130 or departmental approval
For Lineman Technology majors and apprentice linemen presently working in the trade. Course covers alternating current circuitry, components, devices, and how they relate to the electrical industry. Studies basic alternating current, single and three-phase circuits and their components, and the right angle trigonometry used to solve related problems.

LINE 1240
Single/Three-Phase Lines and Safety
4:0:12 Sp
• Prerequisite: LINE 1140 or departmental approval
For Lineman Technology majors, as well as apprentice linemen working in the trade, and journeyman lineman wanting to update their skills. Covers the construction of three-phase distribution and transmission lines, connection of single-phase transformer; three-phase transformer banks; installation of cutout arrestor and safe working procedures. Includes demonstrations and hands-on lab projects. Completers should have a working knowledge of three-phase distribution lines, phase transmission lines, also equipment installed on three-phase lines.

LINE 2310
Powerline Technician and Safety Code I
4:2:6 F
• Prerequisite: LINE 1210 or departmental approval
For Lineman Technology majors to give the trainee a basic knowledge of first aid, basic electricity, power line installation, and work methods. Includes lectures and lab projects. Completers should be able to function on a line crew.

LINE 2320
Industrial Wiring
2:1:3 F
• Prerequisite: LINE 1120 and LINE 1220 or departmental approval
For Lineman Technology majors and apprentice linemen currently working in the trade. Studies industrial building sites, electrical materials, tools, equipment, and manpower needed to complete electrical installations. Uses lectures, demonstrations, lab projects, and field trips. Teaches how to read site plans, select proper materials for service equipment, list the substation components, identify various types of busways, determine the number and kind of electrical panels, describe signaling system component parts; be familiar with the machine layout in the industrial building. Completers should be able to assist qualified electrical workers install industrial wiring.

LINE 2330
Single and Polyphase Metering
2:1:3 F
• Prerequisite: LINE 1110, LINE 1130, LINE 1210, and LINE 1230 or departmental approval
For the Lineman Technology majors and apprentice linemen currently working in the trade. Studies single and three phase residential, commercial, and industrial building metering needs. Includes metering history, construction, principles, and parts of a meter. Teaches meter applications and installations, meter testing and inspection. Uses lecture, demonstration, and lab study. Stresses selection and installation of proper single and three-phase meters to meet customer needs.

LINE 2340
Three-Phase Lines and Safety
5:0:15 F
• Prerequisite: LINE 1240 or departmental approval
For Lineman Technology majors or apprentice linemen who are currently working in the trade. The skill development and safety phase will contain all facets of outside line work from digging holes, setting poles, stringing conductors, replacing old poles, and general line work. Develops skills through hands-on work, demonstrations, and application of methods learned in classroom experiences. Completers should have a good working knowledge of how to construct and maintain a power line, knowledge of transformers and their applications, and be able to effectively and safely work 4 KV circuits with rubber gloves.

LINE 2410
Powerline Technician and Safety Code II
4:1:9 Sp
• Prerequisite: LINE 1210 and LINE 2310 or departmental approval
For Lineman Technology majors and apprentice linemen currently working in the lineman trade. Includes basic knowledge of first aid, basic electricity, power line installation, and basic work methods. Studies the National Electrical Safety Code. Emphasizes field work, lectures, and demonstrations. Completers should be able to function as an apprentice on a line crew.

LINE 2430
Substation Equipment
4:2:6 Sp
• Prerequisite: LINE 1110, LINE 1210, and LINE 2310 or departmental approval
For Lineman Technology majors or apprentice linemen working in the lineman trade. Studies substation site selection, sizing according to existing load requirements, the equipment uses and purposes, and the different types of substation construction. Uses lecture and field trips to established substation sites, video tapes, and hands-on work at the outdoor lab.

LINE 2440
High Voltage Substation and Safety
4:0:12 Sp
• Prerequisite: LINE 1240 and LINE 2340 or departmental approval
For Lineman Technology majors or apprentice linemen working in the trade. Includes all kinds of dead work and applications of energized work with rubber gloves and hot sticks. Teaches almost exclusively by hands-on work methods. Completers should be able to work safely and effectively on all types of energized work with rubber gloves and a variety of energized work with hot sticks.

LINE 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: LINE 285R
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 objectives that improve present work performance.

LINE 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: LINE 281R
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.

MARKETING AND INTERNATIONAL BUSINESS

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CAREER OPPORTUNITIES

For those trained in international business, many opportunities exist in private industry, government, and entrepreneurship fields. Possible occupational areas may include shipping departments of large and small corporations, freight forwarding, import/export, international sales, foreign relations, communications, or government trade offices.

For those trained in marketing, career opportunities are available in advertising, brand and product management, customer affairs, industrial marketing, international marketing, marketing management science and systems analysis, marketing research, new product planning, marketing logistics (physical distribution), public relations, purchasing, retailing management, Internet marketing, and sales and sales management.

JOB OUTLOOK

In international business, job demand is high, particularly in metropolitan areas; and the employment outlook is excellent. Those trained in international business with fluency in one or more foreign languages may enter the fast-growing areas of international business management, marketing, finance, import/export, or government services.

Almost a third of all Americans are employed in marketing-related positions. From large corporations to small companies, both in manufacturing and service areas, firms rely on marketers. There is also a growing trend to use marketing in nonprofit organizations, such as colleges, libraries, and hospitals.

PROGRAMS

Students in Marketing and International Business may receive a Bachelor of Science Degree in Business with a Marketing or an International Business Specialization. An Associate in Science (AS) School of Business transfer degree is available for students planning to transfer to another college or university in Utah. (See the School of Business section of the catalog for details on the AS degree.)

BS IN BUSINESS MANAGEMENT — 122 CREDITS

General Education Requirements:			**36 Credits**
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing: Humanities/ Social Science	
or ENGL	2020	Intermediate Writing: Science/ Technology	3
• MATH	1050	College Algebra	4
or An Advanced Placement (AP) Mathematics Test with a score of 3 or higher			
Complete one of the following:			3
• HIST	1700	American Civilization	
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health & Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses			
• MGMT	2020	Macroeconomics (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:			**49 Credits**
Business Foundation Courses:			
• ACC	2010	Financial Accounting	3
• ACC	2020	Managerial Accounting	3
• Business Computer Proficiency Exam**			
or ISYS	1050	Basic Computer Applications**	3
• MATH	1100	Introduction to Calculus	4
• MGMT	2010	Microeconomics	3
• MGMT	2200	Written Business Communication	3
• MGMT	2340	Business Statistical Applications	3
• MGMT	2390	Effective Business Presentations	3
Business Core Courses:			
• ISYS	3120	Principles of Information Systems: A Managerial Approach	3
• LEGL	3000	Business Law	3
• MGMT	3010	Principles of Management	3
• MGMT	3100	Principles of Finance*	3
• MGMT	3450	Operations Management*	3
• MGMT	3600	Principles of Marketing	3
• MGMT	3890	Career Preparation	2
• MGMT	4800	Strategic Management*	3
• MGMT	495R	Executive Lecture Series	1
or MGMT	493R	Entrepreneurship Lecture Series	
Specialty Core Requirements:			**27 Credits**
Complete one of the following Emphases (see below):			
• International Business			27
or Marketing			27

BS IN BUSINESS MANAGEMENT (CON'T) — 122 CREDITS

Discipline Elective Requirements:			**10 Credits**
• Complete 10 credits of General Education courses			10

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 School of Business courses. No grade lower than a "C-" in core and specialization courses.
3. Residency hours: Minimum of 30 credit hours of School of Business courses through course attendance at UVSC, 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.

Notes:
*Courses with an asterisk (*) cannot be taken until student is matriculated.
**Students will be required to complete the business computer proficiency exam with a score of 80 percent or higher on each module or complete the ISYS 1050 course or ISYS 105A-F modules as necessary with a score of 80 percent or higher in each of the six modules.

Emphasis in International Business

Specialty Core Requirements:			**12 Credits**
• MGMT	3320	Cross Cultural Communication	3
• MGMT	3350	International Marketing	3
• MGMT	4180	International Finance*	3
• MGMT	4870	International Management*	3
Specialty Elective Requirements:			**15 Credits**
• Complete 15 pre-approved elective credits. See advisor for list of specific courses.			15

Emphasis in Marketing

Specialty Core Requirements:			**27 Credits**
• MGMT	3300	Survey of International Business	3
• MGMT	3350	International Marketing	3
• MGMT	4600	Marketing Research*	3
• MGMT	4650	Strategic Marketing*	3
Choose 15 credits from the following list:			15
• MGMT	3220	Retail Management*	
• MGMT	3620	Consumer Behavior*	
• MGMT	3630	Services Marketing	
• MGMT	3650	Selling and Sales Management*	
• MGMT	3660	Internet Marketing*	
• MGMT	3670	Advertising and Promotion*	
• MGMT	482R	Internship Note: Limit of 6 credits	

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

MGMT 1600
Fundamentals of Marketing
3:3:0 On Sufficient Demand
Required for business management AAS degrees; elective credit for other students interested in an introductory marketing course. Deals with processes used in the promotion of goods from producer to consumer. Includes media advertising, trade shows, personal selling, display techniques and preparation of printed materials. Discusses innovations in technology, Internet marketing, developing WWW home

pages, and using cable TV interactive selling. Includes lecture, guest speakers, video tapes, role playing, case analysis, oral presentations, and activities.

MGMT 258R
Current Topics in International Business
1-3:1-3:0 On Sufficient Demand
• Prerequisite: 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 259R
Current Topics in Marketing
1-3:1-3:0 On Sufficient Demand
• Prerequisite: 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.

MGMT 3220
Retail Management
3:3:0 F
• Prerequisite: MGMT 3600
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.

MGMT 3300
Survey of International Business
3:3:0 Su, F, Sp
• Prerequisite: (ENGL 2010 or ENGL 2020 or MGMT 2200) and MGMT 2010
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.

MGMT 3320 (Cross-listed as COMM 3320)
Cross-Cultural Communications for International Business
3:3:0 F, Sp
• Prerequisite: ENGL 2010 or ENGL 2020
Required for international business majors and as an elective for all business majors. 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 change, and management functions.

MGMT 3350
International Marketing
3:3:0 F
• Prerequisite: MGMT 3600 and MGMT 3300
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.

MGMT 3600
Principles of Marketing
3:3:0 Su, F, Sp
• Prerequisite: ENGL 1010
Required for most School of Business Bachelor of Science Degree students and is elective credit for other majors. Studies consumers, markets, and environments from the perspective of the marketing manager. Covers consumer behavior, marketing research, product management, and channels of distribution. Explores pricing, advertising, and personal selling. Includes case analysis, lectures, class discussions, videos, oral presentations, written assignments, and guest speakers.

MGMT 3620
Consumer Behavior
3:3:0 F
• Prerequisite: MGMT 3600, MGMT 2340, and Matriculation into the Business Management Bachelor Degree Program
For bachelor degree business management majors; elective credit for other School of Business majors. 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.

MGMT 3630
Services Marketing
3:3:0 Sp
• Prerequisite: MGMT 3600
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. Completers should develop 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.

MGMT 3650
Selling and Sales Management
3:3:0 F, Sp
• Prerequisite: Matriculation into the Business Management Bachelor Degree Program
For the bachelor degree business management majors; elective credit for other School of Business majors. 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.

MGMT 3660
Internet Marketing
3:3:0 F, Sp
• Prerequisite: MGMT 3600
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.

MGMT 3670
Advertising and Promotion
3:3:0 Sp
• Prerequisite: MGMT 3600 and Matriculation into the Business Management Bachelor Degree Program
For Bachelor Degree Business Management majors; elective credit for other School of Business majors. 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.

MGMT 3730
Opportunities in Direct Sales
3:3:0 On Sufficient Demand
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
3:3:0 On Sufficient Demand
• Prerequisite: MGMT 3730
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 458R
Advanced Topics in International Business
1-3:1-3:0 On Sufficient Demand
• Prerequisite: Department Chair Approval
Provides exposure to emerging topics of current interest in international business. Topics vary each semester. May apply a maximum of six hours toward graduation.

MGMT 459R
Advanced Topics in Marketing
1-3:1-3:0 On Sufficient Demand
• Prerequisite: Department Chair Approval
Provides exposure to emerging topics of current interest in marketing. Topics vary each semester. May apply a maximum of six hours toward graduation.

MGMT 4600
Marketing Research
3:3:0 F
• Prerequisite: MGMT 3600, MGMT 2340
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.

MGMT 4650
Strategic Marketing
3:3:0 Sp
• Prerequisite: MGMT 4600 and Matriculation into the Business Management Bachelor Degree Program
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.

MGMT 4870
International Management
3:3:0 Sp
• Prerequisite: Matriculation into the Business Management Bachelor Degree Program, (MGMT 3000 or MGMT 3010), and MGMT 3300, MGMT 3600, MGMT 3100
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
1-3:1-3:0 On Sufficient Demand
• Prerequisite: Department Chair Approval
For bachelor 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 six hours toward graduation.

MATHEMATICS

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The UVSC mathematics programs are designed to provide a strong foundation in mathematics that will support our students in many disciplines. The Department of Mathematics offers a wide range of courses to the student planning to complete an AS or BS degree in mathematics or the sciences.

The Department of Developmental Mathematics offers MAT 1010, Intermediate Algebra, as well as review and preparatory nontransferable mathematics courses for students who need to strengthen their mathematics skills before entering MAT 1010. See the Developmental Mathematics section of this catalog for a complete listing of these courses.

CAREER OPPORTUNITIES

A career in mathematics, except for teaching at the secondary level, generally requires a graduate degree. However, graduates with a bachelor degree in mathematics and a strong background in a related discipline, such as computer science, statistics, or engineering, can expect good employment opportunities. Mathematicians are called upon to do many different types of jobs that require good reasoning ability and good communication skills. Areas of work for mathematicians include teaching, computer programming and systems analysis, and the design of data encryption systems. Each new technological breakthrough reveals exciting new applications of mathematics, giving rise to an ever-increasing array of employment opportunities for mathematicians.

PROGRAMS

AA/AS PRE MAJOR IN MATHEMATICS — 63 CREDITS

General Education Requirements:			**35 Credits**
• Complete General Education requirements as detailed in the General Education section of this catalog.			
Discipline Core Requirements:			**16 Credits**
• MATH	1210	Calculus I	5
• MATH	1220	Calculus II	5
Complete 6 credits from the following:			6
• MATH	2210	Calculus III	
• MATH	2040	Principles of Statistics*	
• MATH	223A	Principles of Statistics I*	
• MATH	223B	Principles of Statistics II*	
• MATH	2270	Linear Algebra	
• MATH	2280	Ordinary Differential Equations	
• MATH	3400	Partial Differential Equations	
Elective Requirements:			**12 Credits**
• For the AS degree: Any course 1000 or higher (MATH 1060 suggested)			12
or For AA degree: Same foreign language			10
and Any course 1000 or higher (MATH 1060 suggested)			2
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 UVSC			
4 Completion of GE and specified departmental requirements			
5 For the AA degree, completion of 10 credit hours of course work from one foreign language.			

NOTE:
*No duplication is allowed for MATH 2040 and MATH 223A and MATH 223B.

BS IN MATHEMATICS — 125 CREDITS

Matriculation Requirements:			
1 Student must meet with the a mathematics advisor and declare an intent to major in Mathematics;			
General Education Requirements:			**40 Credits**
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	3
or ENGL	2020	Intermediate Writing—Science/Technology	
• MATH	1050	College Algebra (recommended for Business, Education, Science, and Health Professions majors)	4
Complete one of the following:			3
• HIST	1700	American Civilization	
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health and Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses			
• Biology			3
• PHYS	2210	Physics for Scientists & Engineers I	4
and PHYS	2215	Physics for Scientists & Engineers I Laboratory	1
• PHYS	2220	Physics for Scientists & Engineers II	4
and PHYS	2225	Physics for Scientists & Engineers II Laboratory	1
• Humanities Distribution			3
• Fine Arts Distribution			3
• Social/Behavioral Science			3
Discipline Core Requirements:			**46 Credits**
Complete the following with a combined GPA of 2.5 and with no grade lower than a "C".			
• MATH	1210	Calculus I	5
• MATH	1220	Calculus II	5
Complete the following:			
• MATH	2210	Calculus III	3
• MATH	2270	Linear Algebra	3
• MATH	2280	Ordinary Differential Equations	3
• MATH	3200	Foundations of Analysis	3
• MATH	3300	Foundations of Abstract Algebra	3
• MATH	4210	Advanced Calculus I	3
• MATH	4220	Advanced Calculus I	3
Complete 15 credits from the following:			15
(Note: Students planning to do graduate work in mathematics should take the year-long sequence, MATH 4310 and MATH 4320, and acquire a reading knowledge of at least one foreign language chosen from French, German, or Russian. The year-long sequence, MATH 4610 and MATH 4620, is recommended for students planning to pursue graduate studies in the area of applied mathematics.)			
• MATH	3210	Complex Variables	
• MATH	3400	Partial Differential Equations	
• MATH	4000	Introduction to Probability	
• MATH	4220	Advanced Calculus II	
• MATH	4310	Introduction to Modern Algebra I	
• MATH	4320	Introduction to Modern Algebra II	
• MATH	4330	Theory of Linear Algebra	
• MATH	4340	Introduction to Number Theory	
• MATH	4500	Introduction to Topology	
• MATH	4610	Introduction to Numerical Analysis I	
• MATH	4620	Introduction to Numerical Analysis II	
• MATH	490R	Topics in Mathematics	
Elective Requirements:			**39 Credits**
• Complete 15 credits of upper-division electives			15
• Complete 24 of upper-or lower-division electives			24
Graduation Requirements:			
1 Completion of a minimum of 125 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 courses listed above, with no grade lower than a "C" in all listed PHYS and MATH courses (substitutions may be granted for some elective courses).			
3 Residency hours—minimum of 30 credit hours through course attendance at UVSC, with at least 10 hours earned in the last 45 hours.			
4 Completion of GE and specified departmental requirements.			

BS IN MATHEMATICS EDUCATION — 124 CREDITS

Matriculation Requirements:			
1 Completion of MATH 1210, 1220, and 2210 with a 3.0 GPA;			

BS IN MATHEMATICS EDUCATION (CON'T) 124 CREDITS

2 Completion of MATH 2040 with a 2.7 GPA;
3 Completion of matriculation application;
4 Minimum Cumulative GPA of 2.75.

General Education Requirements:			34 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	3
or ENGL	2020	Intermediate Writing—Science/Technology	
Complete one of the following:			3
• HIST	1700	American Civilization	
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health and Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses			
• PHYS	2210	Physics for Scientists and Engineers I	4
and PHYS	2215	Physics for Scientists and Engineers I Laboratory	1
• Biology			3
• Additional Biology or Physical Science (PHYS 2220 recommended)			3
• Humanities Distribution			3
• Fine Arts Distribution			3
• Social/Behavioral Science			3
Discipline Core Requirements:			90 Credits
• MATH	1210	Calculus I	5
• MATH	1220	Calculus II	5
• MATH	2210	Calculus III	3
• MATH	2040	Principles of Statistics	4
• MATH	2270	Linear Algebra	3
• MATH	2280	Ordinary Differential Equations	3
• MATH	3000	History of Mathematics	3
• MATH	3010	Methods of Secondary School Mathematics Teaching	3
• MATH	3020	Computer-Based Mathematics for Secondary School Mathematics Teachers	3
• MATH	3100	Foundations of Geometry	3
• MATH	3200	Foundations of Analysis	3
• MATH	3300	Foundations of Abstract Algebra	3
• MATH	4000	Introduction to Probability	3
• EDSC	2540	Development of the Adolescent Student	2
• EDSC	3000	Educational Psychology	3
• EDSC	3050	Foundations of American Education	2
• EDSC	3250	Instructional Media	2
• EDSC	4200	Classroom Management I	1
• EDSC	4250	Classroom Management II	1
• EDSC	4440	Content Area Reading and Writing	3
• EDSC	4450	Multicultural Instruction/ESL	2
• EDSC	4550	Secondary Curriculum, Instruction and Assessment	4
• EDSC	4850	Student Teaching, Secondary	8
• EDSP	3400	Exceptional Students	2
• Complete an approved minor			16

Graduation Requirements:

1 Completion of a minimum of 124 semester credits with at least 40 credit hours in upper-division courses.
2 Overall grade point average of 2.0 (C) or above, with a minimum GPA of 2.4 in MATH core courses, but no grade lower than a "C" in MATH 1210 or above, and no grade lower than a "C" in PHYS 2210 and PHYS 2215. Also, a grade of "B-" or better is required in MATH 3010.
3 Residency hours—minimum of 30 credit hours through course attendance at UVSC, with at least 10 hours earned in the last 45 hours.
4 Completion of GE and specified departmental requirements
5 Completion of a minor, in a discipline other than mathematics.

MINOR IN MATHEMATICS 25 CREDITS

Matriculation Requirements:

1 Admitted to a bachelor degree program at UVSC.

Discipline Core Requirements:			25 Credits
• MATH	1210	Calculus I	5
• MATH	1220	Calculus II	5
• MATH	2210	Calculus III	3
• MATH	2270	Linear Algebra	3

MINOR IN MATHEMATICS 25 CREDITS

• MATH	2280	Ordinary Differential Equations 3
• Choose at least two mathematics courses from the mathematics courses numbered 3200 and above.		6

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 and MATH 4620 (Introduction to Numerical Analysis I and 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 4320 (Introduction to Number Theory).

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

IMPORTANT: Student scores on mathematics placement tests must be no more than two years old. Also, it is recommended that students who have taken prerequisite mathematics courses more than two years ago, should take the COMPASS mathematics placement test and follow the COMPASS test's course placement recommendation.

MATH 1030 QL
Quantitative Reasoning
3:3:0 On sufficient demand

• Prerequisite: One of the following: MAT 1000 or MAT 1010 with a grade of C or better; an ACT mathematics score of 24 (assuming the test has been taken within the last two years); recommended placement by the COMPASS test

Introduces major topics in the field of mathematics. Includes sets, algebra, geometry, and statistics. Emphasizes problem solving and critical thinking.

MATH 1040 QL
Introduction to Statistics
3:3:0 Su, F, Sp

• Prerequisite: One of the following: MAT 1000 or MAT 1010 with a grade of C or better; an ACT mathematics score of 24 (assuming the test has been taken within the last two years); recommended placement by the COMPASS test

An elementary statistics course. Includes descriptive statistics, sampling, and inferential methods. Emphasizes problem solving and critical thinking.

MATH 1050 QL
College Algebra
4:4:0 Su, F, Sp

• Prerequisite: One of the following: MAT 1000 or MAT 1010 with a grade of C or better; an ACT mathematics score of 24 (assuming the test has been taken within the last two years); recommended placement by the COMPASS test

Includes inequalities, functions and their graphs, polynomial and rational functions, exponential and logarithmic functions, conic sections, systems of linear and nonlinear equations, matrices and determinants, arithmetic and geometric sequences, mathematical induction, the Binomial Theorem, permutations and combinations, and an introduction to probability.

MATH 1060 GM
Trigonometry
3:3:0 Su, F, Sp

• Prerequisite: MATH 1050 with a grade of C or better or recommended placement by the COMPASS test

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.

MATH 1065 QL
Precalculus
5:5:0 On sufficient demand

• Prerequisite: MATH 1050 and 1060

Provides a review of algebra and trigonometry for students who have been out of school for some time. Reviews the mathematical concepts taught in MATH 1050 and MATH 1060. Students who choose to apply MATH 1065 toward graduation cannot also count MATH 1050 and MATH 1060.

MATH 1100 QL
Introduction to Calculus
4:4:0 Su, F, Sp

• Prerequisite: MATH 1050 with a grade of C or better

Includes limits and continuity, differentiation techniques, applications of differentiation, exponential and logarithmic functions, integration techniques, applications of integration, functions of several variables, and Lagrange multipliers.

MATH 1210** QL
Calculus I
5:5:0 Su, F, Sp

• Prerequisite: One of the following: MATH 1050 and MATH 1060, each with a grade of C or better; MATH 1065 with a grade of C or better; recommended placement by the COMPASS test

Includes limits and continuity, differentiation, applications of differentiation, integration, applications of integration, derivatives of the exponential functions, logarithmic functions, inverse trigonometric functions, and hyperbolic functions, and related integrals. Prerequisite for calculus-based sciences.

MATH 121H QL
Calculus I
5:5:0 F, Sp
• Prerequisite: One of the following: MATH 1050 and MATH 1060, each with a grade of C or better; MATH 1065 with a grade of C or better; recommended placement by the COMPASS test
Includes limits and continuity, differentiation, applications of differentiation, integration, applications of integration, derivatives of the exponential functions, logarithmic functions, inverse trigonometric functions, and hyperbolic functions, and related integrals. Prerequisite for calculus-based sciences.

MATH 1220** QL
Calculus II
5:5:0 Su, F, Sp
• Prerequisite: MATH 1210 with a grade of C or better
Includes arc length, area of a surface of revolution, moments and centers of mass, integration techniques, sequences and series, parametrization of curves, polar coordinates, vectors in 3-space, quadric surfaces, and cylindrical and spherical coordinates. Prerequisite for calculus-based sciences.

MATH 122H** QL
Calculus II
5:5:0 F, Sp
• Prerequisite: MATH 1210 or MATH 121H with a grade of C or better
Includes arc length, area of a surface of revolution, moments and centers of mass, integration techniques, sequences and series, parametrization of curves, polar coordinates, vectors in 3-space, quadric surfaces, and cylindrical and spherical coordinates. Prerequisite for calculus-based sciences.

MATH 2010
Mathematics for Elementary Teachers I
3:3:0 Su, F, Sp
• Prerequisite: MATH 1050 with a grade of C or better
Includes problem solving, sets, numeration systems, arithmetic of integers, rational numbers, real numbers, elementary number theory, ratios, decimals, and percents.

MATH 2020
Mathematics for Elementary Teachers II
3:3:0 Su, F, Sp
• Prerequisite: MATH 2010 with a grade of C or better
Includes the basic concepts of statistics, geometry, and measurement.

MATH 2040 QL
Principles of Statistics
4:4:0 Su, F, Sp
• Prerequisite: MATH 1050 with a grade of C or better
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.

MATH 2210** QL
Calculus III
3:3:0 F, Sp
• Prerequisite: MATH 1220 with a grade of C or better
Includes partial derivatives, gradient vectors, Lagrange multipliers, multiple integrals, line integrals, Green's Theorem, surface integrals, the Divergence Theorem, and Stokes' Theorem.

MATH 221H QL
Calculus III
3:3:0 F, Sp
• Prerequisite: MATH 1220 or MATH 122H with a grade of C or better
Includes partial derivatives, gradient, Lagrange multipliers, multiple integrals, line integrals, Green's Theorem, surface integrals, the Divergence Theorem, and Stokes' Theorem.

MATH 223A
Principles of Statistics I
2:2:0 On sufficient demand
• Prerequisite: MATH 1050 with a grade of C or better
A beginning statistics course. Includes summarizing data, measures of central location, measures of variation, probability, mathematical expectation, and discrete and continuous probability distributions.

MATH 223B
Principles of Statistics II
2:2:0 On sufficient demand
• Prerequisite: MATH 223A with a grade of C or better
Includes sampling and sampling distributions, estimations, hypothesis testing, analysis of variance, regression analysis, and correlation.

MATH 2270 QL
Linear Algebra
3:3:0 On sufficient demand
• Prerequisite: MATH 1220 with a grade of C or better
Includes matrices and systems of equations, determinants, vector spaces, linear transformations, orthogonality, and eigenvalues and eigenvectors.

MATH 2280 QL
Ordinary Differential Equations
3:3:0 On sufficient demand
• Prerequisite: MATH 2210 with a grade of C or better
Includes separable equations, linear differential equations, differential operators and annihilators, variation of parameters, power series solutions of differential equations, Laplace transforms, systems of linear differential equations, and numerical methods.

MATH 281R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: 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.

MATH 3000
History of Mathematics
3:3:0 On Sufficient Demand
• Prerequisite: MATH 2210 with a grade of C or better
Provides a survey of the history of mathematics.

MATH 3010
Methods of Secondary School Mathematics Teaching
3:3:0 On Sufficient Demand
• Prerequisite: MATH 2210 with a grade of C or better
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
3:3:0 On Sufficient Demand
• Prerequisite: MATH 2210 and MATH 2270, each with a grade of C or better; MATH 2280 with a grade of C or better 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 an appropriate programming language.

MATH 3100
Foundations of Geometry
3:3:0 On Sufficient Demand
• Prerequisite: MATH 1220 with a grade of C or better
Offers an axiomatic development of Euclidean and non-Euclidean geometries.

MATH 3200
Foundations of Analysis
3:3:0 On Sufficient Demand
• Prerequisite: MATH 2210, MATH 2270, and MATH 2280, each with a grade of C or better
Introduces the construction of rigorous proofs of mathematical claims in the context of beginning analysis.

MATH 3210
Complex Variables
3:3:0 On Sufficient Demand
• Prerequisite: MATH 2210 with a grade of C or better
Includes the algebra of complex numbers, analytic functions, mapping properties of elementary functions, the Cauchy integral formula, residues, and conformal mapping.

MATH 3300
Foundations of Abstract Algebra
3:3:0 On Sufficient Demand
• Prerequisite: MATH 2210 and MATH 2270, each with a grade of C or better
Offers an introduction to algebraic structures. Includes groups, rings, integral domains, fields.

MATH 3400
Partial Differential Equations
3:3:0 On Sufficient Demand
• Prerequisite: MATH 2280 with a grade of C or better
Includes Bessel functions, Legendre polynomials, Fourier analysis, partial differential equations, and boundary-value problems.

MATH 4000
Introduction to Probability
3:3:0 On Sufficient Demand
• Prerequisite: MATH 2210 with a grade of C or better
Includes random variables, distributions, moments, limit theorems.

MATH 4210
Advanced Calculus I
3:3:0 On Sufficient Demand
• Prerequisite: MATH 3200 with a grade of C or better
Provides a rigorous development of single-variable calculus. Includes sequences and series, continuity and differentiation, the Riemann integral, sequences of functions.

MATH 4220
Advanced Calculus II
3:3:0 On Sufficient Demand
• Prerequisite: MATH 4210 with a grade of C or better
Provides a rigorous development of multivariable calculus. Includes partial derivatives, the Inverse Function Theorem, the Implicit Function Theorem, multiple integrals, line and surface integrals, Green's Theorem, and Stokes' Theorem.

MATH 4310
Introduction to Modern Algebra I
3:3:0 On Sufficient Demand
• Prerequisite: MATH 3300 with a grade of C or better
First course of a two-semester sequence that covers groups, rings, integral domains, and fields.

MATH 4320
Introduction to Modern Algebra II
3:3:0 On Sufficient Demand
• Prerequisite: MATH 4310 with a grade of C or better
A continuation of MATH 4310.

MATH 4330
Theory of Linear Algebra
3:3:0 On Sufficient Demand
• Prerequisite: MATH 3300 with a grade of C or better
Presents a theoretical treatment of vector spaces, linear transformations, and inner product spaces.

MATH 4340
Introduction to Number Theory
3:3:0 On Sufficient Demand
• Prerequisite: MATH 1220 with a grade of C or better
Includes divisibility, prime numbers, unique factorization, congruences, and quadratic reciprocity.

MATH 4500
Introduction to Topology
3:3:0 On Sufficient Demand
• Prerequisite: MATH 4220 with a grade of C or better
Includes topological spaces and continuity, connectedness, compactness, metric spaces, and the separation axioms.

MATH 4610
Introduction to Numerical Analysis I
3:3:0 On Sufficient Demand
• Prerequisite: MATH 2210, MATH 2270, and MATH 2280, each with a grade of C or better, and an approved programming language
Includes numerical solutions of equations in one variable, interpolation and polynomial approximation, numerical solutions of linear systems of equations, and approximating eigenvalues.

MATH 4620
Introduction to Numerical Analysis II
3:3:0 On Sufficient Demand
• Prerequisite: MATH 4610 with a grade of C or better
Includes numerical differentiation and integration, numerical solutions of initial-value problems and boundary-value problems for ordinary differential equations, numerical solutions of partial differential equations, and approximation theory.

MATH 490R
Topics in Mathematics
2-3:2-3:0 On Sufficient Demand
• Prerequisite: Departmental approval
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.

MATHEMATICS – DEVELOPMENTAL

Department of Developmental Mathematics

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Telephone: 801-863-8748

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Telephone: 801-863-7318

Evening Coordinator: Benjamin Moulton
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Hazel J. McKenna
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School of General Academics

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Assistant Dean: Lisa Lambert
Office: LA 210d
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Administrative Assistant: Frankie Jensen
Office: LA 210
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The courses offered by the Department of Developmental Mathematics are designed to provide a foundation in preparatory mathematics that is required for future classes in mathematics and that support our students in many disciplines. The courses also provide for the development of critical thinking skills that are applicable to all aspects of academic life.

Developmental Mathematics offers MAT 1000, Integrated Beginning and Intermediate Algebra, and MAT 1010, Intermediate Algebra, as transferable, college credit classes, and as prerequisites for MATH 1030, MATH 1040, and MATH 1050. The Department of Developmental Mathematics also offers preparatory, non-transferable courses for students who need to strengthen mathematics skills before entering MAT 1010.

OTHER SERVICES

Math Tutoring

Academic Tutoring: LA 201
Coordinator: Kathy Van Wagoner
Office: LA 201d
Telephone: 801-863-8411

Learning Assistance

Learning Strategist: Bonnie Jean Blackburn
Office: LC 408
Telephone: 801-863-7418

For a full listing of the courses offered by the Department of Mathematics in the School of Science and Health see the Mathematics section of this catalog.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

For details on prerequisites, contact a student advisor in the School of General Academics, 863-8276.

MAT 0800
Math Fundamentals
3:3:0 **Su, F, Sp**
• Prerequisite: Appropriate test scores
Reviews whole number operations and covers fractions, prime factorization, greatest common factors, and least common multiples. Covers basic operations involving decimals, percents, ratios, and proportions. Includes the basic operations involving measurement and geometry. Introduces basic algebraic operations.

MAT 090R
Individualized Mathematics Review
1-3:1-3:0 **On Sufficient Demand**
• Prerequisite: Appropriate test scores
For students placing into MAT 0950 or MAT 0990. Includes diagnostic test of student's mathematical knowledge base. Develops individualized study plan, including number of credit hours recommended to complete. Course offered credit/no credit. May be repeated once for a maximum of 5 credits.

MAT 0950
Foundations for Algebra
5:5:0 **Su, F, Sp**
• Prerequisite: Appropriate test scores
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. A preparatory course for MAT 0990, Introductory Algebra.

MAT 0960
Special Topics in Math—Nursing
2:2:0 **On Sufficient Demand**
• Prerequisite: Completion of MAT 0800 (C- or better) or appropriate test scores
Recommended for students planning to enroll in NURS 1030. Prepares students to successfully perform calculations of dimensional analysis required in administering medications. Includes Properties of Real Numbers, Prime factorization, operations with whole numbers, fractions, and decimals, rounding, ratios, proportions, percents systems of measurements, reading and interpreting measurement data on labels and orders, problems-solving strategies, and dimensional analysis.

MAT 0980
Integrated Pre-Algebra and Beginning Algebra
5:5:0 **Su, F, Sp**
• Prerequisite: Appropriate test scores
An accelerated preparatory class for MAT 1010, Intermediate Algebra, covering Pre-Algebra and Beginning Algebra in one semester. Topics of study include real numbers, algebraic expressions, polynomials, solving and graphing linear equations and inequalities, factoring, quadratic equations, rational expressions and equations, ratios, percents, systems of linear equations, roots and radicals, and an introduction to complex numbers.

MAT 0990
Introductory Algebra
4:4:0 **Su, F, Sp**
• Prerequisite: MAT 0950, MAT 0980, or appropriate test scores
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.

MAT 1000* GM
Integrated Beginning and Intermediate Algebra
5:5:0 Su, F, Sp

- Prerequisite: MAT 0950 with a grade of B or better, MAT 0980 with a C- or better, or appropriate test scores

Teaches Beginning and Intermediate Algebra in one semester. Includes linear, quadratic, and rational expressions, equations, and functions; systems of equations; logarithms; exponents; graphing; and problem solving. Prepares students for MATH 1030, 1040, and 1050.

MAT 1010* GM
Intermediate Algebra
4:4:0 Su, F, Sp

- Prerequisite: One of the following: MAT 0980 or MAT 0990 with a grade of C- or better; either an ACT mathematics score of 19 or an SAT mathematics score of 500 (assuming each test has been taken within the last two years); or appropriate test scores

Expands and covers in more depth basic algebra concepts introduced in Beginning Algebra. Topics of study include linear and quadratic equations and inequalities, polynomials and rational expressions, radical and exponential expressions and equations, complex numbers, systems of linear and nonlinear equations, functions, conic sections, and real world applications of algebra.

***NOTE: Students must pass MAT 1000 and MAT 1010 with a grade of C or better to enter MATH 1030, MATH 1040, OR MATH 1050.**

MULTIMEDIA COMMUNICATION TECHNOLOGY

Department Chair: Loretta Palmer
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Advisor: Susan Stevens
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School of Computing, Engineering and Technology
Dean: Thomas McFarland
Office: CS 720b
Telephone: 801-863-8995

PROGRAM DESCRIPTION

Multimedia Communication Technology prepares students for careers in digital media. The program equips students with foundational theories and processes to develop sound multi-communication structures. The program integrates graphics, text, animation, video and audio digital materials to entertain, educate, and communicate ideas through meaningful human interaction.

Instruction is organized to offer a balance between:

- conceptualizing projects based on sound analysis, design and evaluation; and
- fostering skills of creativity and teamwork to develop and deliver products.

Students in Multimedia Communication Technology (MCT) may earn either an Associate in Applied Science degree or a Bachelor Degree. Areas of focus include:

- Interaction/Instructional Design
- Digital Imaging
- Digital Audio Processing
- Digital Cinema/TV Production
- Digital Animation Technology
- Internet and Web Development

CAREER OPPORTUNITIES

Because of extensive use of multimedia in nearly every area of our lives, graduates will find themselves in demand by diverse organizations which use digital technology to communicate ideas. For example, graduates may work with medical teams to develop training materials to describe new surgical techniques to physicians, or work with a team to create a new children's educational game. They may work as video or audio specialists on a documentary of historic sites or create an interactive web site to support a company's retail efforts.

PROGRAMS

Students may receive an Associate in Applied Science in Multimedia Communication Technology or a Bachelor of Science in Multimedia Communication Technology. For other bachelor degree options please see department advisor.

AAS IN MULTIMEDIA COMMUNICATION TECHNOLOGY — 65 CREDITS

General Education Requirements:			17 Credits
• ENGL	1010	Introduction to Writing	3
• MAT	1010	Intermediate Algebra	4
• PHIL	2050	Ethics and Values (highly recommended)	
or		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
• HLTH	1100	Personal Health and Wellness	
or		Any approved PE, Safety or Health Distribution Course	1
Discipline Core Requirements:			31 Credits
• ART	1120	2D Design	3
• CNS	1010	Survey of Operating Systems	•
or		Equivalency Test	
or		Competency	
• MCT	1110	Multimedia Essentials I	4
• MCT	1210	Multimedia Essentials II	4
• MCT	1220	Digital Audio Essentials	3
• MCT	2110	Digital Cinema Essentials	3
• MCT	2120	Web Essentials	3
• MCT	2210	3D Modeling and Animation Essentials	4
• MCT	2220	Marketing for Multimedia	3
• MCT	2240	Interaction Design I	3
Elective Requirements:			17 Credits
•		Complete 17 credits of any MCT courses (see advisor)	17

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 hour—minimum of 20 credit hours through course attendance at UVSC.
4 Completion of GE and specified departmental requirements.

BS IN MULTIMEDIA COMMUNICATION TECHNOLOGY — 123 CREDITS

General Education Requirements:			35 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing: Humanities/ Social Science	3
or ENGL	2020	Intermediate Writing: Science/ Technology	
Complete one of the following:			3
• MATH	1030	Quantitative Reasoning (recommended for Humanities or Arts majors)	
• MATH	1040	Introduction to Statistics (recommended for Social Science majors)	
• MATH	1050	College Algebra (recommended for Business, Education, Science, and Health Professions majors)	
Complete one of the following:			3
• HIST	1700	American Civilization	
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health & Wellness	2
or PES	1097	Fitness for Life	
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:			55 Credits
• ART	1120	2D Design	3
• CNS	1010	Survey of Operating Systems	1
or		Equivalency Test	
or		Competency	
• MCT	1110	Multimedia Essentials I	4
• MCT	1210	Multimedia Essentials II	4
• MCT	1220	Digital Audio Essentials	3
• MCT	2110	Digital Cinema Essentials	3
• MCT	2120	Web Essentials	3
• MCT	2210	3D Modeling and Animation Essentials	4
• MCT	2220	Marketing for Multimedia	3
• MCT	2240	Interaction Design I	3
• MCT	3120	Developing Multimedia for Accessibility	3
• MCT	3130	Digital Storyboarding	3
• MCT	3220	Multimedia Project Management	3
• MCT	3240	Interaction Design II	3
• MCT	4110	Writing for Multimedia	3
or ENGL	4310	Advanced Technical Writing	
• MCT	4310	Senior Projects I	3
• MCT	4330	Corporate Issues in Multimedia	3
• MCT	4410	Senior Projects II	3
Elective Requirements:			33 Credits

Complete 33 credits (17 lower division and 16 upper division) from the following list or other department approved electives:

- MCT 210R Special Topics in Multimedia
- MCT 281R Co-op Work Experience
- and MCT 285R Cooperative Correlated Class
- MCT 310R Advanced Topics in Multimedia
- MCT 481R Co-op Work Experience
- and MCT 485R Cooperative Correlated Class
- MCT 489R Internship

Interaction/Instructional Design
- ISYS 3600 Adult Learning for Instructional Design
- ISYS 3650 Training and Development
- MCT 220R Special Topics in Multimedia Design
- MCT 2250 Principles of Digital Design
- MCT 2260 Immersive Authoring I
- MCT 2270 DVD Authoring I
- MCT 3260 Immersive Authoring II
- MCT 3270 DVD Authoring II
- MCT 3280 Authoring for Digital Devices
- PSY 3420 Learning, Memory, and Cognition

Digital Imaging
- ART 1050 Photography
- AVC 2420 Advanced Computer Assisted Graphics
- AVC 2450 Image Processing with Photoshop
- AVC 3720 Photo Lighting
- AVC 3730 Photo Illustration
- MCT 230R Special Topics in Multimedia Graphics
- MCT 330R Advanced Topics in Multimedia Graphics

Digital Audio Processing
- MCT 240R Advanced Topics in Digital Audio
- MCT 2420 Studio Recording I
- MCT 2440 Sound for Film and Television
- MCT 2460 Radio Production
- MCT 2480 MIDI Fundamentals
- MCT 340R Advanced Topics in Digital Audio
- MCT 3420 Studio Recording II
- MCT 3460 Live Sound Reinforcement
- MCT 3480 Digital Audio Restoration

BS IN MULTIMEDIA COMMUNICATION TECHNOLOGY (CON'T) 123

- PHYS 1700 Descriptive Acoustics

Digital Cinema/TV Production

- MCT 250R Special Topics in Digital Media
- MCT 2520 Film Production Analysis
- MCT 350R Advanced Topics in Digital Media
- MCT 3510 Digtial Broadcasting
- MCT 3520 Digital Film Production
- MCT 3540 Cinematography
- MCT 3560 Post Production
- MCT 3570 Digital Storytelling Workshop
- MCT 3580 Digital Cinema Production Workshop
- THEA 1023 Introduction to Film
- THEA 1033 Fundamentals of Acting I
- THEA 2133 Acting for Film
- THEA 2713 Introduction to Writing for the Stage and Screen
- THEA 2613 Directing Actors for Stage and Screen

Digital Animation Technology

- ART 1110 Drawing I
- AVC 2700 Drawing for Animation
- AVC 361R Figure Drawing I
- AVC 370R Figure Structure
- AVC 470R Interpretive Drawing
- MCT 260R Special Topics in 2D/3D Animation
- MCT 2620 Principles of Animation I
- MCT 2640 Advanced Character Modeling
- MCT 360R Advanced Topics in 2D/3D Animation
- MCT 3620 Principles of Animation II
- MCT 3640 SFX and Compositing
- MCT 3680 Animation Project

Internet and Web Development

- MCT 270R Special Topics in Internet Development
- MCT 2740 Web Design
- MCT 2760 Web Languages I
- MCT 2780 Authoring for the Internet I
- MCT 370R Advanced Topics in Internet Development
- MCT 3740 Web Content Management
- MCT 3760 Web Languages II
- MCT 3780 Authoring for the Internet II
- MCT 3790 Streaming on the Internet

Graduation Requirements:

1. Completion of a minimum of 123 semester credits.
2. Overall grade point average of 2.0 (C) or above with no grade lower than a "C" in MCT 1110, 1210, 2110, and 2210.
3. Residency hours—minimum of 30 credit hours through course attendance at UVSC, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.

BS IN TECHNOLOGY MANAGEMENT 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Multimedia Communications Technology

Specialty Core Requirements:			31 Credits
• ART	1120	2D Design	3
• CNS	1010	Survey of Operating Systems	1
or Equivalency Test			
or Competency			
• MCT	1110	Multimedia Essentials I	4
• MCT	1210	Multimedia Essentials II	4
• MCT	1220	Digital Audio Essentials	3
• MCT	2110	Digital Cinema Essentials	3
• MCT	2120	Web Essentials	3
• MCT	2210	3D Modeling and Animation Essentials	4
• MCT	2220	Marketing for Multimedia	3
• MCT	2240	Interaction Design I	3
Specialty Elective Requirements:			14 Credits
• Complete 14 credits from any approved MCT elective (see advisor).			14

Notes:

No upper division Technology Management (ie Technology Management or Business Management) course work older than six years can be counted toward graduation.

If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.

Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

MCT 1110
Multimedia Essentials I
4:4:0 Su, F, Sp

Teaches essentials of multimedia production, development, and delivery. Addresses how computer systems and humans interact to make communication possible. Studies the current state of multimedia products. Covers methods for creating multimedia titles for delivery via CD-ROM and the internet. Includes a project during which each student will design, create, and deliver a high-quality multimedia title.

MCT 1210
Multimedia Essentials II
4:4:0 Su, F, Sp

• Prerequisite: MCT 1110

Presents advanced techniques for multimedia production and development. Addresses how audio and visual materials affect communication and make multimedia possible. Examines current hardware and software tools. Covers methods for creating audio and visual material for multimedia titles. Includes lectures, demonstrations, and a project during which each student will design and create materials for use in a high-quality multimedia title.

MCT 1220
Digital Audio Essentials
3:2:3 F, Sp

• Prerequisite: MCT 1110

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 and mixing a 2-minute piece with voice, sound effects and music. Includes a final project consisting of a foley, sound effect, music, and video project designed for use in film, commercial radio, or other multimedia applications.

MCT 210R
Special Topics in Multimedia
1-4:0-4:0-12 On Sufficient Demand

Designed for students interested in specific multimedia tools and concepts used in multimedia creation. Includes relevant and changing topics and tools used in multimedia production. Emphasizes hands-on experience along with lectures and demonstrations. Completers should be able to use the multimedia tools to create a typical multimedia title. This class can be taken for a total of nine credits, but may not contain the same content.

MCT 2110
Digital Cinema Essentials
3:2:3 Su, F, Sp

• Prerequisite: MCT 1210, MCT 1220
• Corequisite: MCT 1220

Presents professional audio-visual production methods used with multimedia technology. Covers technical aspects of production such as composition, camera use, lighting, editing and visual effects. Addresses issues related to delivery of high-quality video material over the internet utilizing new technologies such as MPEG, Quicktime, DVD RAM, and various internet streaming technologies. Includes lectures, demonstrations, and a project during which each student will set up, shoot, edit, and digitize a high-quality video project for computer-based multimedia.

MCT 2120
Web Essentials
3:2:3 F, Sp

• Prerequisite: MCT 1210

Designed to provide students with the fundamentals of Web design practices, basic coding skills, and future directions that present opportunities for developers. Exposes participants to the latest enhancements on Web programming, examines various multimedia formats such as images, audio, video, sound and animation, and how to ensure international standards are best implemented. Culminates with a final group project during which students will design and create a working site.

MCT 220R
Special Topics in Multimedia Design†
1-4:0-4:0-12 On Sufficient Demand

Designed for students interested in specific authoring tools and concepts used in multimedia creation. Includes relevant and changing topics and tools used in multimedia authoring. Emphasizes hands-on experience along with lectures and demonstrations. Completers should be able to use the authoring tools to create a typical multimedia title. May be taken for a total of nine credits, but may not contain the same content.

MCT 2210
3D Modeling and Animation Essentials
4:3:3 Su, F, Sp

• Prerequisite: MCT 2110

Addresses the basics of 3D modeling, texturing, lighting, animation, and rendering, and how these are utilized in the production process. Teaches the basic techniques and uses of storyboarding in the production of a 3D animation project.

MCT 2220
Marketing for Multimedia
3:3:0 Su, F, Sp

• Prerequisite: MCT 1110

Teaches development and implementation of successful advertising and marketing strategies using current e-marketing techniques. Addresses methods to identify potential markets, select dis-

tribution strategies, and develop successful marketing plans. Describes roles of sales and marketing team members and covers the use of multimedia to create effective marketing materials. Includes methods for creation and distribution of marketing materials and products including internet, print, broadcast and digital media. Includes lectures, demonstrations, and a case study during which each student will develop a realistic marketing plan and materials for a multimedia project.

MCT 2240
Interaction Design I
3:3:0 F
• Prerequisite: MCT 1210
Uses a systems approach in designing interactive multimedia products to create user experiences that enhance and extend the way people work and communicate. Stresses an iterative process of design and evaluation based on theory and good practice needed to create usable products.

MCT 2250
Principles of Digital Design
3:3:0 Sp
• Prerequisite: ART 1120
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.

MCT 2260
Immersive Authoring I
3:3:0 F
• Prerequisite: MCT 1210, MCT 2250
Focuses on the application of media technologies that possess the ability to create rich immersive experiences for distribution on optical media such as CD or DVD-ROM. Introduces participants to a variety of authoring systems and development techniques when creating New Media experiences.

MCT 2270
DVD Authoring I†
3-3:3-3:0 F
• Prerequisite: MCT 1210
Focuses on the development of DVD-Video products and how DVD products are fast becoming the primary means for distributing video and interactive content. Addresses the basic building blocks of the technology and authoring processes for DVD production from conception through completion.

MCT 230R
Special Topics in Multimedia Graphics
1-4:0-4:0-12 On Sufficient Demand
Designed for students interested in specific graphics 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 graphics tools to create a typical multimedia project. May be taken for a total of nine credits, but may not contain the same content.

MCT 240R
Special Topics in Digital Audio
1-4:0-4:0-12 On Sufficient Demand
Designed for students interested in specific audio 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 audio tools to create a typical multimedia project. May be taken for a total of nine credits, but may not contain the same content.

MCT 2420
Studio Recording I
3:3:0 F
• Prerequisite: (MCT 1220, MAT 1010, PHYS 1700) or instructor approval
Reviews basic sound principles (standing waves, studio acoustics), microphone types and techniques of use. Theory and application of mixers, signal processors, and effects. Proper construction and grounding of a recording studio. Introduces one or more digital audio workstations, and will be required to complete a mixdown of a multi-track project. Also introduces psychoacoustics and Digital Signal Theory. Continues more in-depth from where the Digital Audio Essentials class left off.

MCT 2440
Sound for Film and Television
3:3:0 Sp
• Prerequisite: MCT 1220
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 and sound effects tracks (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.

MCT 2460 (Cross-listed as COMM 2560)
Radio Production
3:3:0 F
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.

MCT 2480
MIDI Fundamentals
2:2:0 On Sufficient Demand
Covers the fundamentals of MIDI (Musical Recording Technology, analog and digital synthesis, and digital sampling). Surveys available music software and hardware with hands-on experience in the college's electronic music studio. Examines materials intended to assist students in becoming acquainted with, and effectively utilizing, the computerized technological music tools which are currently available.

MCT 250R
Special Topics in Digital Media
1-4:0-4:0-12 On Sufficient Demand
• Prerequisite: MCT 2110
Designed for students interested in specific video 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 video tools to create a typical multimedia project. May be taken for a total of nine credits but may not contain the same content.

MCT 2520
Film Production Analysis
3:2:3 Sp
• Prerequisite: MCT 2110
Analyzes the various technologies and techniques that make up motion pictures communication. Involves viewing a motion picture each week of class and analyzing how the producer and director incorporated production and structural techniques to produce the project. Covers the eight sequence structural elements of motion picture storytelling, how each crew member of the production team contribute to the overall impact, how scripting is used to direct the team to create a strong cinematic effect, and how the three act eight sequence structure guides the entire team through pre-production to post production.

MCT 260R
Special Topics in 2D/3D Animation
1-4:0-4:0-12 On Sufficient Demand
Designed for students interested in specific animation 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 animation tools to create a typical multimedia project. May be taken for a total of nine credits but may not contain the same content.

MCT 2620
Principles of Animation I
3:2:3 F
• Prerequisite: MCT 1210, AVC 2700
Introduces the structure principles and motion of contemporary animation. Also includes a study of animation milestones and personalities.

MCT 2640
Advanced Character Modeling
3:2:3 Sp
• Prerequisite: MCT 2210 or instructor approval
Furthers a student's skills and knowledge in the techniques associated with the creation and production of 3D character animation for games, film, and television. Requires a firm understanding of 3D modeling, rendering, and basic animation. Involves bringing a character through the process of concept to line art, from line art to 3D model, from 3D model to rigged character and from rigged character to animated actor.

MCT 270R
Special Topics in Internet Development
1-4:0-4:0-12 On Sufficient Demand
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. May be taken for a total of nine credits, but may not contain the same content.

MCT 2740
Web Design
3:3:0 F
• Prerequisite: MCT 2120
Offers participants the opportunity to learn the underlying principles that create the favorable circumstances for goal-directed development of Web sites. Avoids the "Cool Factor" by ensuring that participants research, experiment and implement good design practices while implementing approved international standards. Culminates with a final group project during which students will design and create a product to solve design issues centered on an assigned theme.

MCT 2760
Web Languages I
3:3:0 F
• Prerequisite: MCT 2120
Considers the creation of websites using current client-side technologies, including: DHTML, or the combination of XHTML, JavaScript and Cascading Style Sheets. Covers advanced techniques for multimedia production and development in detail. Examines client-side technologies 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 technologies. Teaches how to make the static content within a typical webpage more dynamic, interesting, and most importantly, useful. Culminates with a final project during which each student will design and create materials for use in a well-designed interactive web site.

MCT 2780
Authoring for the Internet I
3:3:0 F
• Prerequisite: MCT 2120 and MCT 2260
Provides the opportunity to learn various authoring tools such as Flash to create engaging Internet applications specifically for the client-side; because interactive experiences not only occur on highly sophisticated Web sites, but also on a variety of digital devices that utilize the Internet for delivery. Teaches the basics of design, animation, scripting, workflow, and delivery techniques.

MCT 281R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: MCT 285R
For Multimedia Communication Technology students to receive actual on-the-job work experience. Provides a transition from school to work where learned theory is applied to actual practice through a meaningful on-the-job paid experience. 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.

MCT 285R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: MCT 281R
For Multimedia Communication Technology students. Identifies on-the-job problems and provides opportunities for collective discussion of issues related to job coping skills, decision-making and leadership techniques. Includes job research techniques, self-assessment, sources of job prospects, written communication tools, appearance, interview techniques, and interpersonal relations.

MCT 310R
Advanced Topics in Multimedia
1-4:0-4:0-12 On Sufficient Demand
Includes relevant and changing topics and tools used in multimedia. Emphasizes hands-on experience. Uses multimedia tools to create a typical multimedia title. May be taken for a total of nine credits, but may not contain the same content.

MCT 3120
Developing Multimedia for Accessibility†
3:3:0 F, Sp
• Prerequisite: MCT 2210
Provides information regarding special needs and multimedia. Includes narrow-casting techniques for a specific special needs audience. Addresses broadcasting techniques for a general audience. Focuses on special populations that must be treated uniquely. Requires a service-learning project.

MCT 3130
Digital Storyboarding
3:3:0 F, Sp
• Prerequisite: (MCT 2110 and MCT 2210) or instructor approval
Introduces students to contemporary storyboarding practices and procedures key to communicating information clearly, concisely, consistently in the most cost effective manner.

MCT 320R
Advanced Topics in Multimedia Design†
1-4:0-4:0-12 On Sufficient Demand
Includes relevant and changing topics and tools used in multimedia design and authoring. Emphasizes hands-on experience. Uses authoring tools to create a typical multimedia project. May be taken for a total of nine credits, but may not contain the same content.

MCT 3220
Multimedia Project Management
3:3:0 F, Sp
• Prerequisite: MCT 2210
Teaches the foundational principles which contribute to both quality and profitability of multimedia projects. Compares multimedia development to the software development process. Additionally, reviews team dynamics such as the relationship between project manager and other production team members. Introduces project management tools, which can be used to guide and manage individual and multiple projects.

MCT 3240
Interaction Design II
3:3:0 Sp
• Prerequisite: MCT 2240 or instructor approval
Uses a systems approach for the process of designing multimedia environments, including identifying users and needs; developing usability criteria; formulating evaluation methods; refining design through prototype iteration; and reporting of findings. Interactive design principles and product research are stressed.

MCT 3260
Immersive Authoring II
3:3:0 Sp
• Prerequisite: MCT 2260
Focuses on advanced application of media technologies when creating rich immersive experiences for distribution as a desktop or optically based application that is connected to the Internet. Introduces participants to customized media elements, compression techniques, dynamic content structures and delivery mechanisms to deliver engaging New Media experiences.

MCT 3270
DVD Authoring II†
3:3:0 Sp
• Prerequisite: MCT 2270
Focuses on advanced application of DVD-Video media technologies. Covers the advanced characteristics of visual design, encoding practices, and programming aspects of the DVD specifica-

tion as it relates to DVD production and the delivery of enhanced experiences.

MCT 3280
Authoring for Digital Devices
3:3:0 Sp
• Prerequisite: MCT 3260
Focuses on the application of media technologies that possess the ability to create rich immersive experiences for distribution on digital devices beyond the computer that can include personal information managers, mobile phones, home appliances or home entertainment systems.

MCT 330R
Advanced Topics in Multimedia Graphics
1-4:0-4:0-12 On Sufficient Demand
Includes relevant and changing topics and tools used in multimedia. Emphasizes hands-on experience. Uses graphics tools to create a typical multimedia project. May be taken for a total of nine credits, but may not contain the same content.

MCT 340R
Advanced Topics in Digital Audio
1-4:0-4:0-12 On Sufficient Demand
Includes relevant and changing topics and tools used in multimedia. Emphasizes hands-on experience. Uses audio tools to create a typical multimedia project. May be taken for a total of nine credits, but may not contain the same content.

MCT 3420
Studio Recording II
3:3:0 Sp
• Prerequisite: MCT 2420
Reviews microphone types and techniques of use. 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. Teaches the art of mastering for CD and DVD audio. Continues further in-depth topics on impedance matching, power requirements, and use of the decibel. Provides students with the opportunity to interface with several on-campus musical groups and to record several live concerts, and will require students to complete a mixdown of the shows.

MCT 3460
Live Sound Reinforcement
3:3:0 Sp
• Prerequisite: MCT 1220
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. Sound indoors vs. outdoor will also be investigated. Teaches proper cabling and connections, speaker crossovers, and theory of bi-amplification. Mixer diagrams and basic electronics will also be covered. Practical experience acquired in giving technical support to UVSC theater, music department, and public relations functions.

MCT 3480
Digital Audio Restoration
3:3:0 F
Teaches the use of various tools to restore, preserve, and archive audio from a variety of sources, including vinyl records, tapes, film soundtracks, etc. Addresses how to remove ambient noise (fans, AC, etc) from class film projects. Covers methods of removing impulsive noise (clicks and pops), periodic noise (hum and buzz), and random noise (spectral subtraction of ambient noise). Includes lectures, demonstrations, and several projects to restore using no fewer than three software packages. In addition, attention will be given to the subject of audio forensics, or restoring audio for intelligence or law enforcement applications.

MCT 350R
Advanced Topics in Digital Media
1-4:0-4:0-12 On Sufficient Demand
• Prerequisite: MCT 2110
Includes relevant and changing topics and tools used in multimedia. Emphasizes hands-on experience. Uses video tools to create a typical multimedia project. May be taken for a total of nine credits, but may not contain the same content.

MCT 3510
Digital Broadcasting
3:2:3 F
• Prerequisite: MCT 2110
Teaches planning, management and execution of live video productions integrating multiple cameras. Teaches the roles of the broadcast production team. Studies various types of digital standards and broadcast equipment. Includes hands-on broadcast lab where students produce and direct short productions.

MCT 3520
Digital Film Production
3:3:0 Sp
• Prerequisite: MCT 2210
Teaches advanced digital cinema storytelling production techniques for CD-ROM, DVD, World Wide Web and theatrical distribution. Includes instruction in the different positions that comprise the entire production team, including the roles of the team and how they evolve through the pre-production, production and post production process. Stresses narrative film based on structurally sound three act eight sequence scripts. Involves dividing the class into production teams and producing short three act narrative films that include dialogue, sound effects and music.

MCT 3540
Cinematography
3:2:3 F
• Prerequisite: MCT 2110
A "hands-on" class that covers the role of the Director of Photographer (DP) and Gaffer in broadcast television and digital cinematography. Teaches continuity of lighting, continuity in editing and direction, use of lenses, grip and lighting equipment, on-set protocol, the role in pre-production, production and post-production. Covers working with a producer, director, production designer, set decorator, boom operator and editor. Covers blue screen, green screen and CGI effects. Investigates scene sub text.

MCT 3560
Post Production
3:3:0 F, Sp
• Prerequisite: MCT 2110
Teaches the professional post production process used to complete video tape, digital cinema, and multimedia productions. Covers workflow, dialogue cutting, montage cutting, music cutting, multi-camera editing, multi-layer compositing, audio mixing, special effects editing, animation editing, fine cutting and color correcting.

MCT 3570
Digital Story Telling Workshop
3:3:0 On Sufficient Demand
• Prerequisite: MCT 2110
A professional workshop. Teaches advanced writing for multimedia and motion pictures. Covers professional script structure based around the 8 sequence motion picture structure. Includes writing assignments each week that will be read and analyzed according to structure and execution of the goal of the work. Discusses, each week, a specific scriptwriting subject such as finding the idea, research, outlining and rewriting.

MCT 3580
Digital Cinema Production Workshop
3:3:0 On Sufficient Demand
• Prerequisite: MCT 2110
Covers the fundamentals of directing a production. Provides a project-based opportunity for participants to develop skills in editing scripts, casting, rehearsing and performing a scene. Under the direction of the faculty mentor, the scene will be polished for shooting, then shot and edited for presentation to the workshop for critique.

MCT 360R
Advanced Topics in 2D/3D Animation
1-4:0-4:0-12 On Sufficient Demand
Includes relevant and changing topics and tools used in multimedia. Emphasizes hands-on experience. Uses animation tools to create a typical multimedia project. May be taken for a total of nine credits, but may not contain the same content.

MCT 3620
Principles of Animation II
3:2:3 Sp
• Prerequisite: MCT 2620 and MCT 2210
Covers advanced concepts. Includes lip synch, complex motion analysis and scene layout. A continued study of the principles of animation and an integration of 2D and 3D environments.

MCT 3640
SFX and Compositing
4:4:0 F
• Prerequisite: MCT 2110, MCT 2210
Investigates the history of effects animation, and how to do it in the modern world, using traditional and advanced techniques, and high-end software and equipment. Includes, but not limited to: particle systems, compositing with 3D files and animation, simulating real or unreal environments, 3D mapping and more.

MCT 3680
Animation Project
3:3:0 Sp
• Prerequisite: MCT 3620 and MCT 3640
Introduces the design portion of a multi-semester team project for students focusing on 2D/3D animation. Includes a research phase, pre-visualization, writing, designing, scripting, storyboarding for a client-driven project.

MCT 370R
Advanced Topics in Internet Development
1-4:0-4:0-12 On Sufficient Demand
Includes relevant and changing topics and tools used in multimedia. Emphasizes hands-on experience. Uses web design tools to create a typical multimedia project. May be taken for a total of nine credits, but may not contain the same content.

MCT 3740
Web Content Management
3:3:0 Sp
• Prerequisite: MCT 2740
Teaches students to create a site that is dynamic, content rich, and meaningful to the end participant. Focuses on getting your reader and content right. Teaches how to effectively plan, develop, arrange, and change content through the use of information design principles, content management systems and analysis tools. Culminates with participants working on an actual site in a production environment in which students must solve design, development and delivery issues.

MCT 3760
Web Languages II
3:3:0 Sp
• Prerequisite: MCT 2760
Expands on Web Languages I. 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. Culminates with a final project during which each student will design and create materials for use in a well-designed database driven web site.

MCT 3780
Authoring for the Internet II
3:3:0 Sp
• Prerequisite: MCT 2780
Introduces participants to Internet Application development and server-side database connectivity. Teaches how to deliver multifaceted Internet based content in various forms and understand the complexities of such workflow environments. Also teaches advanced scripting techniques.

MCT 3790
Streaming on the Internet
3:3:0 F
• Prerequisite: MCT 2120
Addresses the many challenges that face adoption of streaming media on the Net and the future direction of the yet untapped market. Investigates format technologies such as MPEG-4, Real Player, and Windows Media Player, and when to employ these technologies, as well as the production workflow for live broadcasts. Includes lectures, demonstrations, tutorials, and individual projects to teach material. Culminates with a final group project during which students will plan and execute a live streaming event for on-line consumption.

MCT 4110
Writing for Multimedia
3:3:0 F
• Prerequisite: MCT 1110, ENGL 2010 or ENGL 2020
Teaches the role of the written word in the digital arena and the writing skills for students to become effective communicators within the various forms of multimedia including web pages, digital animation, audio, video and cinema.

MCT 4310
Senior Projects I†
3:1:6 F
• Prerequisite: MCT 2210
For senior Multimedia students. Provides a capstone experience working in multimedia. Develops individual projects in real world multimedia productions in consultation with a faculty advisor. Encourages team work.

MCT 4330
Corporate Issues in Multimedia
3:3:0 F
• Prerequisite: MCT 2220
Covers business and legal issues in multimedia. Reviews good business practices for the multimedia industry. Studies e-commerce fundamentals. Teaches 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.

MCT 4410
Senior Projects II†
3:1:6 Sp
• Prerequisite: MCT 4310
Conclusion of MCT 4310. Concludes the capstone experience for multimedia students. Addresses post production issues such as testing, packaging, and documentation. Offers opportunity to present projects to multimedia students, faculty, sponsors, and potential employers or clients.

MCT 4420
Applied Multimedia Technology
3:3:0 On Sufficient Demand
For general public or educators. 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 multimedia technology.

MCT 481R
Cooperative Work Experience
1-8:0:5-40 Su, F, Sp
• Corequisite: MCT 485R
For Multimedia Communication Technology students to receive actual on-the-job work experience. Provides a transition from school to work where learned theory is applied to actual practice through a meaningful on-the-job paid experience commensurate with upper division classroom instruction. Includes student, employer, and coordinator evaluation, 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 a maximum of 8 credits toward graduation.

MCT 485R
Cooperative Correlated Class
1:1:0 Su, F, Sp
• Corequisite: MCT 481R
For Multimedia Communication Technology students to receive actual on-the-job work experience. Provides a transition from school to work where learned theory is applied to actual practice through a meaningful on-the-job paid experience commensurate with upper division classroom instruction. Includes student, employer, and coordinator evaluation, 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 a maximum of 8 credits toward graduation.

MCT 489R
Internship
1-8:0:5-40 Su, F, Sp
• Prerequisite: Instructor Approval
• Corequisite: MCT 485R
Provides opportunities to intern in an approved multimedia environment where classroom theory and training experiences may be applied. Credit is determined by the number of hours a student interns in a structured multimedia environment. Emphasizes successful work experience, especially problem-solving.

MUSIC

Department of Music

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Graduates of the Department of Music pursue careers as diverse as conducting, performing, composing, film music, arts administration, sound recording and teaching. Music graduates are also attractive to schools of medicine and law. All UVSC students are invited to audition for our choirs, orchestras, bands (including jazz band), percussion ensemble, flute choir and chamber groups. Students may take private lessons on most instruments. Our courses satisfy general education requirements, transfer to other four-year institutions, and can be used in the Integrated Studies degree. Our academic classes in music theory and music history aim to help students understand how the disciplines of the mind can enrich our experience of the "language of the heart."

AS PRE MAJOR IN MUSIC — 62 CREDITS

General Education Requirements: 36 Credits
- Complete General Education requirements as detailed in the General Education section of this catalog.

Discipline Core Requirements :27 Credits
- MUSC 1110 Basic Music Theory I 3
- MUSC 1120 Basic Music Theory II 3
- MUSC 1130 Aural Music Skills I 2
- MUSC 1140 Aural Music Skills II 2
- MUSC 2350 Fundamentals of Conducting 2
- MUSC 2110 Advanced Music Theory I 3
- MUSC 2120 Advanced Music Theory II 3

Complete 4 credits from the following: 4
- MUSC 120R A Cappella Choir*
- MUSC 124R UVSC Concert Choir*
- MUSC 130R Symphonic Band*
- MUSC 170R Symphony Orchestra*

Complete 4 credits from the following: 4
- MUSC 150R Individual Piano Instruction*
- MUSC 151R Individual Voice Instruction*
- MUSC 152R Individual Woodwind Instruction*
- MUSC 153R Individual Brass Instruction*
- MUSC 154R Individual String Instruction*
- MUSC 155R Individual Percussion Instruction*
- MUSC 156R Individual Guitar Instruction*

Complete 1 credit from the following: 1
- MUSC 1400 Introduction to Music Technology
- MUSC 1150 Group Piano I
- MUSC 1640 Group Voice
- MUSC 1650 Group Strings
- MUSC 1660 Group Clarinet

AS PRE MAJOR IN MUSIC (CON'T) — 62 CREDITS

- MUSC 1680 Group Trumpet
- MUSC 1800 Introduction to Music Education
- MUSC 2400 Recording Studio I

Graduation Requirements:
1. Completion of a minimum of 62 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 UVSC.
4. Completion of GE and specified departmental requirements.

Note:
*May be repeated four (4) times toward graduation.

BA/BS IN INTEGRATED STUDIES — 123 CREDITS

The following Integrated Studies emphasis is available (see the Integrated Studies section of this catalog for complete degree requirement listings):
- Music

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

MUSC 1010 FF
Introduction to Music
3:3:0 Su, F, Sp
A survey course designed to make music more meaningful. Studies melody, harmony, form, and rhythm together with historical and biographical information.

MUSC 1100 XF
Fundamentals of Music
2:2:0 Su, F, Sp
Designed for non-music majors. Examines the fundamentals of music such as keys, scales, intervals, rhythms, meters, and terminology. Completion of a second course is required to satisfy the fine arts requirement (see Graduation section of catalog).

MUSC 1110 GF
Basic Music Theory I
3:3:0 F, Sp
- Prerequisite: MUSC 1100 or passing score or Music Program Placement Test

For music majors, interested students and community members. An intense study of the fundamentals of music including elementary harmony, primary and secondary triads with inversions, non harmonic tones and modulation. Concurrent enrollment in MUSC 1130 is highly desirable.

MUSC 1120 GF
Basic Music Theory II
3:3:0 Su, Sp
- Prerequisite: MUSC 1110

A continuation of MUSC 1110, Music Theory I.

MUSC 1130 GF
Aural Music Skills I
2:2:0 F, Sp
For music majors and other interested students and community members. An intense study of the skills of analysis, sight reading, and ear training. Develops student's aural music skills.

MUSC 1140 GF
Aural Music Skills II
2:2:0 Su, Sp
- Prerequisite: MUSC 1130

For music majors and other interested students and community members. An intense study of the skills of analysis, sight reading, and ear training. A continuation of MUSC 1130.

MUSC 1150 GF
Group Piano I
2:2:0 Su, F, Sp
Group piano class for students who have had little or no piano experience. A comprehensive course covering fundamentals of aural, tactile, and visual keyboard skills as well as some music theory.

MUSC 1160 GF
Group Piano II
2:2:0 F, Sp
- Prerequisite: MUSC 1150 or instructor approval

Group piano class designed for students who have basic performing and technical skills. A comprehensive course including instruction in theory, keyboard skills, and sight-reading.

MUSC 120R GF
A Cappella Choir
1:0:4 F, Sp
- Prerequisite: Audition

Provides group training in various styles of choral literature. Requires attendance at scheduled performances and expected acquisition of choir attire. Requires audition. May be repeated. Two credits may apply toward the AAS degree and four credits toward AS degrees.

MUSC 122R GF
Chamber Choir
1:2:0 F, Sp
- Prerequisite: Audition
- Corequisite: MUSC 120R

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. Two credits may apply toward the AAS degree and four credits toward the AA/AS degrees.

MUSC 124R GF
UVSC Concert Choir
1:2:0 F, Sp
- Prerequisite: Instructor approval

For the singer desiring experience in choral performance. Provides the opportunity of performing in a group of select singers. Studies music of various style and periods. Requires participation in concerts and programs. Instructor approval is required. May be repeated. Two credits may

apply toward the AAS degree and four credits toward the AA/AS degree.

MUSC 126R GF
Show Choir—Encore
2:1:3 F, Sp
• Corequisite: MUSC 120R
For the advanced singer desiring experience in show choir performance. Provides the opportunity of performing in a small group of select singers. Studies music and choreography. Requires participation in concerts, programs and tours. Some costume expenses may be incurred. May be repeated. Four credits may apply toward the AAS degree and eight credits toward the AA/AS degrees.

MUSC 130R GF
Symphonic Band
1:0:4 F, Sp
• Prerequisite: Audition
Provides opportunity to improve musical performance skills by participating in the band. Studies and performs serious concert literature. Functions as the Wolverine Pep Band at athletic activities. Requires attendance at all concerts, performances, and tours. May be repeated. Two credits may apply toward the AAS degree and four credits toward the AS or BS degrees.

MUSC 132R GF
Jazz Ensemble
1:2:0 F, Sp
Prerequisite: Instructor approval
Provides the advanced instrumentalist the opportunity to perform jazz music as a member of the jazz ensemble. Studies all styles of jazz, rock and popular music. Requires attendance at all performances. May be repeated. Two credits may apply toward the AAS degree and four credits toward the AA/AS degrees.

MUSC 1400 GF
Introduction to Music Technology
2:2:0 F, Sp
Covers the fundamentals of MIDI (musical recording technology, analog and digital synthesis, and digital sampling). Surveys available music software and hardware with hands-on experience in the College's electronic music studio.

MUSC 150R GF
Individual Piano Instruction
1:1:0 Su, F, Sp
Private instruction on piano. Designed to meet the individual needs of the student in developing skills and techniques. Requires five hours of practice each week. May be repeated. Two credits may apply toward the AAS degree and four credits toward the AA/AS degrees.

MUSC 151R GF
Individual Voice Instruction
1:1:0 Su, F, Sp
Private instruction in developing the voice. Designed to meet the individual needs of the student in developing skills and techniques. Requires five hours of practice each week. May be repeated. Two credits may apply toward the AAS degree and four credits toward the AA/AS degree.

MUSC 152R GF
Individual Woodwind Instruction
1:1:0 Su, F, Sp
Private instruction on woodwind instruments. Designed to meet the individual needs of the student in developing skills and techniques. Requires five hours of practice each week. May be repeated. Two credits may apply toward the AAS degree and four credits toward AA/AS degrees.

MUSC 153R GF
Individual Brass Instruction
1:1:0 Su, F, Sp
Private instruction on brass instruments. Designed to meet the individual needs of the student in developing skills and techniques. Requires five hours of practice each week. May be repeated. Two credits may apply toward the AAS degree and four credits toward AA/AS degrees.

MUSC 154R GF
Individual String Instruction
1:1:0 Su, F, Sp
Private instruction on string instruments. Designed to meet the individual needs of the student in developing skills and techniques. Requires five hours of practice each week. May be repeated. Two credits may apply toward the AAS degree and four credits toward AA/AS degrees.

MUSC 155R GF
Individual Percussion Instruction
1:1:0 Su, F, Sp
Private instruction on percussion instruments. Designed to meet the individual needs of the student in developing skills and techniques. Requires five hours of practice each week. May be repeated. Two credits may apply toward the AAS degree and four credits toward AA/AS degrees.

MUSC 156R GF
Individual Guitar Instruction
1:1:0 Su, F, Sp
Private instruction on guitar. Designed to meet the individual needs of the student in developing skills and techniques. Requires five hours of practice each week. May be repeated. Two credits apply toward the AAS degree and four credits toward the AA/AS degrees.

MUSC 1640 GF
Group Voice
1:1:1 F, Sp
Designed for non-voice majors. Group instruction to fit the individual needs of the students in developing vocal skills and techniques. Covers vocal tone, melodies, diction, performance skills, etc.

MUSC 1650 GF
Group Strings
1:1:1 F, Sp
Teaches students basic performing and teaching skills on the violin, viola, cello and bass.

MUSC 1660 GF
Group Clarinet
1:1:1 F
Teaches basic performing and teaching skills on the clarinet. Covers good clarinet tone, knowledge of fingerings and special problems, correct clarinet assembly, etc.

MUSC 1680 GF
Group Trumpet
1:1:1 Sp
Teaches basic performing and teaching skills on the trumpet. Covers knowledge of the trumpet mechanism, trumpet tone, trumpet fingerings, etc.

MUSC 170R GF
Symphony Orchestra
1:0:4 F, Sp
• Prerequisite: Audition
Provides the opportunity to improve musical performance skills by participating in the orchestra. Studies and performs serious concert literature from all periods of music history. Requires attendance at all concerts, rehearsals, and tours. May be repeated. Two credits may apply toward the AAS Degree and four credits toward the AS or BS degrees.

MUSC 172R GF
Chamber Orchestra
1:2:0 On Sufficient Demand
• Prerequisite: Instructor approval and prior playing experience
For students desiring public chamber orchestra performance experience. Provides the opportunity to improve music performance skills. Studies and performs serious concert literature from all periods of music history. Attendance is expected at all concerts, rehearsals, and tours. Entrance requires audition. May be repeated. Two credits may apply toward the AAS Degree and four credits toward the AA/AS degrees.

MUSC 1800
Introduction to Music Education
1:1:1 F. Sp
Introduces the Music education profession. Emphasizes personal, professional, and musical skills necessary for successful music teaching and learning. Requires observation of music teachers outside of scheduled class time.

MUSC 2010 FF
Music History and Literature I
3:3:1 F
Basic course for music majors and for those desiring a comprehensive background in music. Examines the history of music from ancient time to the end of the Baroque era. Emphasizes listening to music and developing knowledge of musical style. Covers significant composers and characteristics of the studied period.

MUSC 2020 FF
Music History and Literature II
3:3:1 Sp
For music majors and other interested students and community members. Examines the history of music starting with the Classical Era and continuing up to our own time. Emphasizes listening to music and developing a comprehensive background in music. Covers significant composers and characteristics of the studied periods.

MUSC 2110 GF
Advanced Music Theory I
3:3:0 F
• Prerequisite: MUSC 1120
For music majors and other interested students and community members. Studies chromatic elements of music. Covers the music theory of the twentieth century. Provides additional training in sight-singing and dictation. Covers diminished seventh chords, modulation, augmented sixth cords, etc.

MUSC 2120 GF
Advanced Music Theory II
3:3:0 Sp
• Prerequisite: MUSC 2110
A continuation of MUSC 2110. For music majors, interested students and community members.

MUSC 220R GF
Small Ensembles
1:1:0 F, Sp
For the musician desiring experience in small ensemble performance. Provides opportunity for performing in small groups of select musicians. Studies music of various styles and periods. Some public performances may be required. May be repeated. Two credits may apply toward the AAS degree and four credits toward the AA/AS degrees.

MUSC 2350 GF
Fundamentals of Conducting
2:2:0 F, Sp
For music majors, interested students and community members. An introductory course which covers the basics of conducting. Focuses on baton technique, score reading, interpretation and rehearsal.

MUSC 2400 GF
Recording Studio I
2:1:2 F, Sp
• Prerequisite: MUSC 1120, MUSC 1140
Introduces recording studio from an artistic and operational point of view. Emphasizes audio consoles, microphones, multi-track recorders, and echo chambers. Increases understanding of operation and function of recording equipment and its relationship to musicians, sound engineer, and producer.

MUSC 2420
Recording Studio II
2:1:2 Sp
• Prerequisite: MUSC 2400
Continues the study and application of recording techniques begun in MUSC 2400. Emphasizes multi-track recording and mix down, microphone placement, and patch bay function. Requires creative projects demonstrating proficient use of studied equipment.

MUSC 290A
Independent Study
1:0-1:0-3
• Prerequisite: 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.

MUSC 290B
Independent Study
2:0-2:0-6
• Prerequisite: 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.

MUSC 290C
Independent Study
3:0-3:0-9
• Prerequisite: 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.

MUSC 3120
Form and Analysis
2:2:0 F
• Prerequisite: MUSC 2120
Studies the formal genres of western art music. Emphasizes written and aural analysis.

MUSC 3150
Advanced Instrumental Conducting
2:2:0 Sp
• Prerequisite: MUSC 2350, MUSC 2120, MUSC 2010, MUSC 2020 or instructor's permission
Teaches advanced baton techniques, score preparation and basic rehearsal procedures for instrumental ensembles.

MUSC 320R
Advanced A Cappella Choir
1:0:4 F, Sp
• Prerequisite: Audition
Provides group training in the various styles of choral literature. Requires attendance at scheduled performances. May be repeated. Three credits may apply toward the BS degree.

MUSC 330R
Advanced Symphony Band
1:0:4 F, Sp
• Prerequisite: Instructor approval; prior playing experience
Improves musical performance skills by participation in the band. Studies and performs serious concert literature. Requires attendance at all concerts, performances, tours and acquisition of performance attire. May be repeated. Three credits may apply toward the BS degree.

MUSC 3400 XF
Music in the Elementary School
2:2:0 Su, F, Sp
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. Completion of a second course is required to satisfy the fine arts requirement (see Graduation section of catalog).

MUSC 350R
Advanced Individual Piano Instruction
1:1:0 Su, F, Sp
• Prerequisite: Passing juried examination
Develops student performance skills and techniques. Requires five hours of practice each week. May be repeated. Three credits may apply toward the BS degree.

MUSC 351R
Advanced Individual Voice Instruction
1:1:0 Su, F, Sp
• Prerequisite: Passing juried examination
Develops the student's singing voice. Requires five hours of practice each week. May be repeated. Three credits may apply toward the BS degree.

MUSC 352R
Advanced Individual Woodwind Instruction
1:1:0 Su, F, Sp
• Prerequisite: Passing juried examination
Develops individual woodwind performance skills. Requires five hours of practice each week. May be repeated. Three credits may apply toward the BS degree.

MUSC 353R
Advanced Individual Brass Instruction
1:1:0 Su, F, Sp
• Prerequisite: Passing juried examination
Develops individual brass performance skills. Requires five hours of practice each week. May be repeated. Three credits may apply toward the BS degree.

MUSC 354R
Advanced Individual String Instruction
1:1:0 Su, F, Sp
• Prerequisite: Passing juried examination
Develops individual string performance skills. Requires five hours of practice each week. May be repeated. Three credits may apply toward the BS degree.

MUSC 355R
Advanced Individual Percussion Instruction
1:1:0 Su, F, Sp
• Prerequisite: Passing juried examination
Develops percussion performance skills. Requires five hours of practice each week. May

be repeated. Three credits may apply toward the BS degree.

MUSC 356R
Advanced Individual Guitar Instruction
1:1:0 Su, F, Sp
• Prerequisite: Passing juried examination
Develops performance skills on guitar. Requires five hours of practice each week. May be repeated. Three credits may apply toward the BS degree.

MUSC 370R
Advanced Symphony Orchestra
1:0:4 F, Sp
• Prerequisite: Audition required; instructor permission
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. Three credits may apply toward the BS degree.

MUSC 4130
Scoring and Arranging
2:2:0 Sp
• Prerequisite: MUSC 2120
Studies techniques of scoring and arranging music for orchestra, band, choir, and small ensembles.

MUSC 4150
Advanced Choral Conducting
2:2:0 F
• Prerequisite: MUSC 2350, MUSC 2120, MUSC 2010, MUSC 2020
Develops advanced baton techniques, score preparation and basic rehearsal procedures for choral organizations.

MUSC 4600
Jazz Improvisation
1:1:1 F
• Prerequisite: MUSC 1120
Develops jazz improvisational skills for instrumental and vocal jazz performance. Emphasizes chords related to 12-bar blues and simple song using II-V7-I chord progressions. Develops skills through a program of systematic exposition and utilization of fundamental musical structures.

NURSING

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The Associate Degree and Bachelor Degree programs are accredited by the National League for Nursing Accreditation Commission, 61 Broadway, New York, NY 10006 212-363-5555 ext. 153.

JOB OUTLOOK

Job demand is high; the current shortage of nurses is predicted to increase over the next 15-20 years.

NURSING PROGRAMS

Students in Nursing may receive an Associate in Science or Bachelor of Science Degree in Nursing. The Associate in Science Degree program prepares the graduate to function individually as a member of the health care team in structured health care settings in which clients have common health problems. The graduate is eligible to write the National Council Licensure Examination to qualify as a Registered Nurse. The Bachelor Degree program prepares graduates to design, coordinate and manage health care, to assume leadership roles, to enter graduate education in nursing, and to develop leadership and management skills.

ADMISSION REQUIREMENTS

Admission to each program is by application and is competitive. Completion of one program is required for admission to the next level. For admission to either level, applicants must apply for admission to UVSC *and* to the Nursing Program. Transcripts for High School (or GED test scores) and all Colleges/Universities attended must be submitted to Admissions. See the Nursing Department for application materials and deadlines.

OTHER REQUIREMENTS

A minimum grade of "C" is required for ZOOL 2320, ZOOL 2420, MICR 2020, CHEM 1110, MATH 1050, PSY 1100, ENGL 1010, and all nursing courses. Nursing courses must be taken in sequence. A student cannot fail any required course and remain in the program. In order to pass each nursing course, a student must pass the clinical portion, and receive ***both*** a minimum of 74% in the theory portion ***and*** a minimum 74% average on all exams. At the end of the semester, a student must have an average of 74% or above for course exams and an overall course average of 74% or above.

AS IN NURSING — 75 CREDITS

Matriculation Requirements:
1. Acceptance of Nursing Application (see Advisor);
2. Acceptance into Nursing Program (see Advisor);
3. High School transcripts (or GED test Scores) and College/University transcripts to Admissions.
4. Completion of MATH 1050, CHEM 1110, ENGL 1010, ZOOL 2320, and ZOOL 2420 with a grade of "C" or better.

General Education Requirements:			37 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing: Humanities/ Social Science	3
• MATH	1050	College Algebra	4
Complete one of the following:			3
• HIST	1700	American Civilization	
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
Distribution Courses			
• MICR	2060	Microbiology for Health Professionals	4
• CHEM	1110	Elementary Chemistry for the Health Sciences	4
• PSY	1100	Human Development: Life Span	3
• ZOOL	2320	Human Anatomy	4
• Humanities Distribution			3
• Fine Arts Distribution			3
Discipline Core Requirements:			38 Credits
• ZOOL	2420	Human Physiology	4
• NURS	1030	Concepts of Nursing I	9
• NURS	1110	Concepts of Nursing II	9
• NURS	2010	Concepts of Nursing III	8
• NURS	2110	Concepts of Nursing IV	7
• NURS	2120	Issues In Nursing	1

Graduation Requirements:
1. Completion of a minimum of 75 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 UVSC
4. Completion of GE and specified departmental requirements

BS IN NURSING — 123 CREDITS

Matriculation Requirements:
1. Acceptance of Nursing Application (see Advisor);
2. Completion of AS in Nursing;
3. Acceptance into Nursing Program (see Advisor);
4. High School transcripts (or GED test Scores) and College/University transcripts to Admissions as well as the Nursing Department.
4. Completion of MICR 2060, MATH 1050, CHEM 1110, ENGL 1010, ZOOL 2320, and ZOOL 2420 with a grade of "C" or better.

General Education Requirements:			37 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing: Humanities/ Social Science	3
• MATH	1050	College Algebra	4
Complete one of the following:			3
• HIST	1700	American Civilization	
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
Distribution Courses			
• MICR	2060	Microbiology for Health Professionals	4
• CHEM	1110	Elementary Chemistry for the Health Sciences	4
• PSY	1100	Human Development: Life Span	3
• ZOOL	2320	Human Anatomy	4
• Humanities Distribution			3
• Fine Arts Distribution			3
Discipline Core Requirements:			86 Credits
• ZOOL	2420	Human Physiology	4
• NURS	1030	Concepts of Nursing I	9
• NURS	1110	Concepts of Nursing II	9
• NURS	2010	Concepts of Nursing III	8
• NURS	2110	Concepts of Nursing IV	7
• NURS	2120	Issues In Nursing	1
• NURS	3000	Nursing Concepts V	4
• NURS	3010	Nursing Concepts VI	2
• NURS	3020	Nursing Concepts VII	2
• NURS	3030	Nursing Concepts VIII	4
• NURS	4000	Nursing Theory	3

BS IN NURSING (CON'T) 123 CREDITS

• NURS	4010	Fundamentals of Nursing Research	3
• NURS	4020	Nursing Concepts IX	6
• NURS	4030	Nursing Concepts X	7
• NURS	4040	Senior Seminar	3
• NURS	4050	Senior Project	3
• MATH	2040	Principles of Statistics	4
• HLTH	4250	Health Services Organization and Policy	3
• ZOOL	4400	Pathophysiology	4

Graduation Requirements:
1 Completion of a minimum of 123 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 UVSC
4 Completion of GE and specified departmental requirements

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

NURS 1030
Concepts of Nursing I
9:5:12 F, Sp
• Prerequisite: Admission to AS program
Introduces concepts and roles fundamental to nursing practice and physiological and psychological functions and activities that maintain or alter health and wellness. Develops basic psychomotor skills needed to complete independent and collaborative nursing care. Provides opportunities to practice and apply concepts through group discussion, class presentations, and case studies in lecture and lab settings.

NURS 1110
Concepts of Nursing II
9:5:12 F, Sp
• Prerequisite: NURS 1030, PSY 1100
Builds upon Nursing Concepts I. Focuses on an expanded recognition and comprehension of concepts and processes fundamental to the practice of nursing. Develops skills to identify patient care needs and assist in planning appropriate interventions in a variety of settings. Emphasizes related patient symptoms and medical diagnosis; comprehension and verbalization of nursing care interventions; utilization and nursing considerations of drug classifications. Includes readings, discussions, demonstrations, multimedia use and case studies during which each student will participate in both lecture and laboratory settings.

NURS 2010
Concepts of Nursing III
8:4:12 F, Sp
• Prerequisite: Departmental Permission
Focuses on the concepts and processes needed to identify the health needs and/or problems of patients. Identifies discriminating factors used to determine and complete appropriate independent and collaborative nursing interventions. Emphasizes pharmacokinetics and nursing implications for medication use; identification of nursing diagnoses and problems; elaborations of pathophysiologic mechanisms. Includes readings, discussions, demonstrations, multimedia resources, and case studies during which each student will participate in both a lecture and laboratory setting.

NURS 2110
Concepts of Nursing IV†
7:3:12 F, Sp
• Prerequisite: NURS 2010
Integrates planning and management of holistic patient care. Identifies, implements, and evaluates interventions designed to address patients' needs in a variety of settings. Examines cultural diversity and ethnicity when planning appropriate nursing care. Incorporates promotion, maintenance, and restoration of health. Includes supervision, delegation, and evaluation of the nursing care team.

NURS 2120
Issues in Nursing
1:1:0 F, Sp
• Prerequisite: NURS 2010
• Corequisite: NURS 2110
Discusses scope of practice, management skills, and roles of the Registered Nurse as a member of the interdisciplinary health care team. Explores contemporary issues in nursing practice.

NURS 281R
Cooperative Work Experience
2-9:1:5-40 F, Sp
• Prerequisite: Approval of Cooperative Coordinator
Students must be currently enrolled in the nursing program. 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.

NURS 285R
Cooperative Related Instruction
1:1:0 F, Sp
• Prerequisite: Approval of Cooperative Coordinator and concurrent enrollment in NURS 281R
This course is designed to identify on-the-job opportunities and problems of cooperative work experience students, and provide opportunities for in-class discussion and study.

NURS 290R
Professional Issues in Nursing
1:1:0 On Sufficient Demand
For Nursing majors only. Explores professional issues such as job opportunities, health care trends and issues, and professional organizations and their activities. Emphasizes the roles of continuing education and professional organizational activity. Offers membership in the Utah Student Nurses Association. Includes field trips, guest lecturers and service projects. A total of two credits may apply towards graduation.

NURS 295R
Independent Study in Nursing
1-4:1-4:0 On Sufficient Demand
• Prerequisite: Department approval
Provides individualized, independent study in nursing under the direction of a faculty mentor. May include literature reviews, participation in ongoing nursing projects, or other student identified projects/activities. Projects and/or learning activities are limited to work beyond that which is available in existing nursing courses. Proposals for independent study in nursing must be submitted for approval by the department. May be repeated for up to six credits toward graduation.

NURS 3000
Nursing Concepts V
4:4:0 Sp
• Prerequisite: RN Status
For students in the baccalaureate degree nursing program. Builds on a basic knowledge of psychosocial nursing. Incorporates the nursing process in the management of health care recipients with mental illness. Prepares the student to develop, manage, and evaluate nursing care for those with a mental illness. Requires students to demonstrate clinical skills in hypothetical care situations.

NURS 3010
Nursing Concepts VI
2:2:0 Sp
• Prerequisite: RN status
For students in the baccalaureate degree nursing program. Presents the complex issues related to the childbearing experience. Presents uncomplicated and complicated pregnancies, delivery, and postpartum care for the childbearing family. Presents outcomes for the neonate. Requires students to demonstrate clinical skills in hypothetical care situations.

NURS 3020
Nursing Concepts VII
2:2:0 Sp
• Prerequisite: RN status
For students in the baccalaureate degree nursing program. Covers nursing concepts as they apply to the pediatric health care recipient from infancy through adolescence. Teaches the nursing student to apply facts and principles consistent with the nursing process in providing care to health care recipients within the pediatric population.

NURS 3030
Nursing Concepts VIII
4:4:0 Sp
• Prerequisite: RN status
Covers nursing concepts related to the care of the adult patient. Applying facts and principles, for students in the BSN Degree Program based on pathophysiology, treatment modalities, drugs, nutrition, and nursing interventions to adult health care recipients. Requires students to

demonstrate clinical skills in hypothetical care situations.

NURS 4000
Nursing Theory
3:3:0 Su
• Prerequisite: RN status
For students in the baccalaureate degree nursing program. Examines various models of nursing practice which influence nursing today. Evaluates multi-level nursing practice on current health care trends. Exposes the student to ideas and values which affect those trends. Incorporates the development of an individual philosophy of nursing practice.

NURS 4010
Fundamentals of Nursing Research
3:3:0 F
• Prerequisite: NURS 4000
For students in the baccalaureate degree nursing program. Introduces research concepts, designs, methodology, and techniques. Examines the scientific approach, preliminary steps in research, designs for nursing research, measurement and data collection, analysis of research data, and critiquing and utilizing nursing research.

NURS 4020
Nursing Concepts IX†
6:4:6 Sp
• Prerequisite: NURS 4010
Integrates professional nursing practice with community health practice to promote and preserve the health of populations. Incorporates the nursing process in the care of individuals, families, and groups in the community. Emphasizes the nursing role in health promotion and disease prevention. Reinforces communication, legal-ethical and professional considerations implicit in prevention. Includes family and community assessments, epidemiological principles and implementation of illness prevention and health maintenance programs within a community.

NURS 4030
Nursing Concepts X
7:4:9 Su
• Prerequisite: NURS 4010, NURS 4020
For students in the baccalaureate degree nursing program. Explores various management and leadership theories. Utilizes conflict resolution, communication skills, change process within the health care profession. Includes different roles the nurse performs in the health care environment (case manager, nurse educator and quality improvement initiator) and how these roles can enhance the nursing care given to health care recipients.

NURS 4040
Senior Seminar
3:3:0 F
• Prerequisite: NURS 4030
For students in the bachelors degree program in nursing. Builds upon a general knowledge of current trends in nursing. Examines current nursing issues and their impact on professional practice. Provides opportunities for enhancement of research, writing, and evaluation skills.

NURS 4050
Senior Project
3:1:6 F
• Prerequisite: MATH 2040
• Corequisite: NURS 4040
Integration course for bachelor nursing students. Requires students to complete a well-defined project in an area of special interest that incorporates learning achieved during their nursing education. Includes limited formal instruction and faculty supervision. Requires faculty approval of proposed study or project. Requires students to complete project in a clinical practice area; faculty and student will mutually define criteria for grading the senior project.

PHILOSOPHY

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School of Humanities, Arts, and Social Sciences

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The UVSC Philosophy and Humanities Department is committed to the idea that logic and critical thinking are the core of any and all academic disciplines. Modern technological demands require professionals with expertise in problem-solving, decision-making, and investigative analysis.

These courses may be used to fulfill humanities requirements for Associate in Science or Arts, and Associate in Applied Science degrees. In addition to the General Education requirements, students fulfill the Optional Requirements portion of the AA/AS degree with a Philosophy pre-major by completing 28 additional credits as outlined below.

PROGRAM

AA/AS PRE MAJOR IN PHILOSOPHY 60-61 CREDITS

General Education Requirements:			35 Credits
• Complete General Education requirements as detailed in the General Education section of this catalog.			
Discipline Core Requirements:			16 Credits
• PHIL	1000	Introduction to Philosophy	3
• PHIL	120R	Philosophy Forum	1
• PHIL	1250	Logical Thinking	3
• PHIL	1610	Introduction to Western Religions	3
or PHIL	1620	Introduction to Eastern Religions	
• PHIL	2110	Ancient Philosophy	3
• PHIL	2150	Early Modern Philosophy	3
Elective Requirements:			9-10 Credits
• For AS degree: Any course 1000 Level or higher			9
or For AA degree: Same Foreign Language			10
Graduation Requirements:			

AA/AS PRE MAJOR IN PHILOSOPHY (CON'T) 60-61

1. Completion of a minimum of 60-61 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 UVSC.
4. Completion of GE and specified departmental requirements.
5. For the AA degree, completion of 10 credit hours of course work from one language.

BA/BS IN PHILOSOPHY 120 CREDITS

General Education Requirements:			35 Credits
• ENGL	1010	Introduction to Writing	3
• ENGL	2010	Intermediate Writing—Humanities/Social Science	3
or ENGL	2020	Intermediate Writing—Science and Technology	
Complete one of the following:			3
• MATH	1030	Quantitative Reasoning (recommended for Humanities or Arts majors)	
• MATH	1040	Introduction to Statistics (recommended for Social Science majors)	
• MATH	1050	College Algebra (recommended for Business, Education, Science, and Health Professions majors)	
Complete one of the following:			3
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• HIST	1700	American Civilization	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health & Wellness	
or PES	1097	Fitness for Life	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:			37 Credits
Complete the following:			
• PHIL	120R	Philosophy Forum	1
• PHIL	1250	Logical Thinking	3
• PHIL	2110	Ancient Philosophy	3
• PHIL	2150	Early Modern Philosophy	3
• PHIL	4910	Philosophy Research Capstone	3
Ethics Set (complete 3 credits from the following)			3
• PHIL	3510	Business and Professional Ethics	
• PHIL	3520	Biomedical Ethics	
• PHIL	3530	Environmental Ethics	
• PHIL	3700	Social and Political Philosophy	
• PHIL	450R	Interdisciplinary Senior Ethics Seminar	
• PHIL	451R	Ethical Theory Seminar	
History Set (complete 3 credits from the following)			3
• PHIL	4140	History of Analytic Philosophy	
• PHIL	4150	History of Continental Philosophy	
Topic Set I (complete 3 credits from the following)			3
• PHIL	3200	Metaphysics	
• PHIL	3300	Epistemology	
Topic Set II (complete 3 credits from the following)			3
• PHIL	3400	Philosophy of Science	
• PHIL	3600	Philosophy of Religion	
• PHIL	3700	Social and Political Philosophy	
• PHIL	3800	Aesthetics	
• PHIL	4470	Philosophy of Mind	
• PHIL	4480	Philosophy of Language	
Complete 12 upper-division credits of Philosophy course work, excluding those courses taken to fulfill categories listed above.			12
Elective Requirements:			48 Credits
• For BS degree: Any course 1000 or higher; 13 credits must be upper-division			48
or For BA degree: One Foreign Language			18
and Any course 1000 or higher; 13 credits must be upper- division			30
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 UVSC, 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.

BA/BS IN PHILOSOPHY (CON'T) 120 CREDITS

6. For the BA degree, completion of 18 credit hours of course work from one language to include the 1010, 1020, 2010, and 2020 levels or transferred equivalents.

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, PHIL 290R, PHIL 295R, PHIL 400R, PHIL 450R, and PHIL 451R can be repeated for credit.

BA/BS IN INTEGRATED STUDIES 123 CREDITS

The following Integrated Studies emphases are available (see the Integrated Studies section of the catalog for complete degree requirement Listings).

Philosophy

Specialty Core Requirements:			18 Credits
Complete the following:			
• PHIL	1250	Logical Thinking	3
Complete 3 credits from the following:			3
• PHIL	1000	Introduction to Philosophy	
• PHIL	1600	World Religions	
• PHIL	2010	Ancient-Medieval Philosophy	
• PHIL	2020	Modern-Contemporary Philosophy	
• PHIL	3150	Philosophical Issues in Feminism	
• PHIL	3450	Philosophy of Childhood	
• PHIL	3400	Philosophy of Science	
• PHIL	290R	Independent Study	
• PHIL	295R	Directed Readings	
Complete 12 credits from the following:			12
• PHIL	3000	Formal (Deductive) Logic	
• PHIL	3800	Introduction to Aesthetics	
• PHIL	3300	Epistemology	
• PHIL	3510	Business and Professional Ethics	
• PHIL	3600	Philosophy of Religion	
• PHIL	3530	Environmental Ethics	
• PHIL	3700	Social and Political Philosophy	
• PHIL	4140	History of Analytic Philosophy	
• PHIL	4480	Philosophy of Language	
• PHIL	400R	Great Philosophers	
• PHIL	450R	Interdisciplinary Senior Ethics Seminar	
• PHIL	451R	Ethical Theory Seminar	

Religious Studies

Specialty Core Requirements:			18 Credits
Prerequisites (see Advisor)			
• PHIL	1610	Introduction to Western Religions	(3)
• PHIL	1620	Introduction to Eastern Religions	(3)
Complete the following:			
• PHIL	3600	Philosophy of Religion	3
• RLST	3650	Approaches to Religious Studies	3
• RLST	366R	Issues in Religious Studies	3
Complete 9 credits from the following:			9
• ANTH	3400	Myth, Magic, and Religion	
• ANTH	360R	People and Cultures of the World	
• ENGL	2230	Myths and Legends in Literature	
• ENGL	373R	Literature of Cultures and Places	
• ENGL	3740	Literature of the Sacred	
• ENGL	3760	World Literature	
• ENGL	471R	Eminent Authors	
• ENGL	474R	Topics in Folklore	
• PHIL	450R	Interdisciplinary Senior Ethics Seminar	

MINOR IN PHILOSOPHY 18 CREDITS

Matriculation Requirements:			
1 Enrollment at Utah Valley State College			
2 Overall grade point average of a 2.0 (C) or better.			
3 Admitted to a bachelor degree program at UVSC.			
Discipline Core Requirements:			18 Credits
Complete one of the following:			3
• PHIL	2110	Ancient Philosophy	
or PHIL	2150	Early Modern Philosophy	
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

MINOR IN RELIGIOUS STUDIES 21 CREDITS

Matriculation Requirements:			
1 Completion of 30 hours credit			
2 Admitted to a Bachelor Degree program at UVSC			

Discipline Core Requirements:			12 Credits
• PHIL	1610	Introduction to Western Religions	3
or PHIL	1620	Introduction to Eastern Religions	
• RLST	3650	Approaches to Religious Studies	3
• RLST	366R	Issues in Religious Studies	3
• PHIL	3600	Philosophy of Religion	3
Elective Requirements:			9Credits
Complete 9 credits of electives from the list below or as approved by advisor. All electives must be approved by advisor.			9
• ANTH	3400	Myth Magic and Religion	
• ANTH	360R	People and Cultures of the World	
• ANTH	3460	Anthropology of Mormonism	
• COMM	350R	Special Topics in Mass Communication	
• ENGL	2230	Myths and Legends in Literature	
• ENGL	3780	Mormon Literature	
• ENGL	3740	Literature of the Sacred	
• ENGL	3760	World Literature	
• ENGL	471R	Eminent Authors	
• ENGL	474R	Topics in Folklore	
• HIAT	4100	Jewish History	
• PHIL	450R	Interdisciplinary Senior Ethics Seminar	
• SOC	475R	Current Topics in Sociology	

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

PHIL 1000 HH
Introduction to Philosophy
3:3:0 Su, F, Sp
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 120R
Philosophy Forum
1:1:0 F, Sp
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 HH
Logical Thinking and Philosophical Writing
3:3:0 F, Sp
Introduces fundamental elements of logical thinking and applies these to philosophical writing. Practices written applications of subjects and concepts such as (but not limited to) definition, argument, fallacy, deduction, validity, soundness, categorical syllogism, induction, causal argumentation, hypothesis, confirmation, and probability.

PHIL 1600
World Religions
3:3:0 Not 05-06
Presents a comparative study of the world's major living religions. Provides opportunities for appreciative understanding through the study of historical origins, stages of development, sacred literature, doctrines, practices, and goals. Emphasizes similarities and differences among the ideas of religions. Includes lectures, large and small group discussions and appropriate audio/visual presentations.

PHIL 1610 HH
Introduction to Western Religions
3:3:0 F, Sp
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 HH
Introduction to Eastern Religions
3:3:0 F, Sp
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 2010 HH
Ancient-Medieval Philosophy
3:3:0 Not 05-06
• Prerequisite: Any philosophy course
For students interested in philosophical concepts. Explores the thinking of the most influential philosophers from the sixth century ancient Greeks through the sixteenth century medieval era. Examines materials from the Classical Greek Presocratics, Plato, Aristotle, Roman Stoics, and the Medieval Scholastics.

PHIL 2020 HH
Modern-Contemporary Philosophy
3:3:0 Not 05-06
• Prerequisite: Any philosophy course
For students interested in philosophical concepts. Explores the thinking of the most influential philosophers from the sixteenth century ancient Renaissance through the twentieth century contemporary era. Examines subjects such as: rationalism, empiricism, existentialism, and "post-modernism."

PHIL 2050** IH
Ethics and Values†
3:3:0 Su, F, Sp
• Prerequisite: ENGL 1010
A demanding transfer course, designed to challenge students to (1) explore and clarify their values; (2) critically read works of philosophy, literature, religion, and history toward understanding the basis of their ethical views; and (3) 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. This confrontation with major philosophical concepts and systems is intended to engage students in serious reflection on issues of ethics and values as they relate to the students' own lives.

PHIL 2110 HH
Ancient Philosophy
3:3:0 F
• Prerequisite: PHIL 1000 or PHIL 2050 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.

PHIL 2130 HH
Medieval Philosophy
3:3:0 Sp
• Prerequisite: PHIL 1000 or PHIL 2050 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 HH
Early Modern Philosophy
3:3:0 Sp
• Prerequisite: PHIL 1000 or PHIL 2050 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.

PHIL 290R GH
Independent Study
1-3:0-3:0-12 Su, F, Sp
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.

PHIL 295R GH
Directed Readings
1-3:0-3:0-12 Su, F, Sp
Provides an opportunity for second year students to do in-depth research within the discipline of Philosophy. 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.

PHIL 3000
Formal Deductive Logic
3:3:0 Sp
• Prerequisite: PHIL 1250
Covers the main systems of deductive (symbolic or formal) logic: Sentential and Syllogistic. Uses these systems to evaluate arguments, in natural (i.e. English) language. Includes symbolizations, truth-table analysis, truth-tree analysis, Venn diagrams, and proofs.

PHIL 3150
Philosophical Issues in Feminism
3:3:0 F
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 3200
Metaphysics
3:3:0 F
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 3300
Epistemology
3:3:0 Not 05-06
• Prerequisite: PHIL 1000
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 HH
Philosophy of Science
3:3:0 Sp
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
3:3:0 Not 05-06
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 3470
Pragmatism and American Philosophy
3:3:0 F
• Prerequisite: Engl 1010 or PHIL 2050
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†
3:3:0 F
• Prerequisite: PHIL 2050 or 205H
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
Biomedical Ethics
3:3:0 Not 05-06
• Prerequisite: PHIL 2050
Shows how ethical theories can help provide frameworks for moral judgement and decision-making in the wake of twentieth century 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 HH
Environmental Ethics
3:3:0 Sp
• Prerequisite: PHIL 2050 or 205H
Presents a comprehensive, balanced introduction to the field of environmental ethics. Examines a variety of national and international environmental issues. Challenges students to think and write critically about classic and contemporary works on ethics and the environment. Analyzes ethical, scientific, aesthetic, political, economical and religious perspectives pertaining to the environment.

PHIL 3540 (Cross-listed as RLST 3540)
Christian Ethics
3:3:0 Not 05-06
• Prerequisite: PHIL 1610
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.

PHIL 3600
Philosophy of Religion
3:3:0 F
• Prerequisite: PHIL 2050
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 as RLST 3610)
Introduction to Christian Theology
3:3:0 Not 05-06
• Prerequisite: PHIL 1610
Examines key developments and conceptions in Christian theology through historical and conceptual methodologies.

PHIL 3650 (Cross-listed as RLST 3650)
Approaches to Religious Studies
3:3:0 Sp
• Prerequisite: PHIL 2050
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 as RLST 366R)
Issues in Religious Studies
3:3:0 F
• Prerequisite: PHIL 2050
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 nine hours of credit.

PHIL 3700
Social and Political Philosophy
3:3:0 Sp
• Prerequisite: PHIL 2050 or PHIL 205H
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 3750
Marxist Philosophy
3:3:0 F
• Prerequisite: PHIL 1000 or PHIL 2050
Examines the political philosophy of Karl Marx and looks at Marx's legacy for 20th century and contemporary philosophy. Topics may include: 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 as HUM 3800)
Introduction to Aesthetics
3:3:0 Sp
• Prerequisite: PHIL 2050 or PHIL 205H and HUM 1010
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 perspective of philosophers such as Plato, Aristotle, Kant, Hume, Dewey, Danto, Bell, Collingwood, Thoreau, and Dickie.

PHIL 3810
Existentialism and Phenomenology
3:3:0 F
• Prerequisite: PHIL 2050
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
Philosophy through Literature
3:3:0
• Prerequisite: PHIL 2050, or PHIL 1000, or permission of the instructor
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 on great thinkers and writers by blurring the line between strict "philosophy" and "great art." Encourages students to engage texts by learning to read them on different levels. Develops critical reading, writing, and discussion skills. Teaches students to think independently and creatively about the intersections of philosophy and literature. Emphasizes core thematics and skills in philosophy.

PHIL 400R
Great Philosophers
3:3:0 F, Sp
• Prerequisite: PHIL 2010, 2020
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
3:3:0 Su
• Prerequisite: ENGL 1010, PHIL 1000, or PHIL 2050
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
3:3:0 Sp
• Prerequisite: PHIL 1000, or PHIL 2110, or PHIL 2150, or permission from instructor
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
3:3:0 F
• Prerequisite: PHIL 2020
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 Phiolsophy. Explores views such as Logicism, Logical Atomism, Holism, Verificationism, Logical Behaviorism, Psychologism, Nominalism, and Realism.

PHIL 4150
History of Continental Philosophy
3:3:0 Not 05-06
• Prerequisite: PHIL 2050
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 4200
Symbolic Logic
3:3:0 Not 05-06
• Prerequisite: PHIL 3000
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 4470
Philosophy of Mind
3:3:0 Not 05-06
• Prerequisite: (PHIL 1000 or PHIL 1250) and (ENGL 2010 or ENGL 2020)
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
3:3:0 Not 05-06
• Prerequisite: PHIL 2020
Explores the central issues in the philosophy of language. Includes the study of such issues as truth, meaning, reference and descriptions, names and demonstratives, speech acts, metaphor and private language. Includes the study of such philosophers as W.V.O. Quine, A Tarski, D. Davidson, J. Searle, J. Derrida, C. Levi-Strauss, F. Saussure, L. Wittgenstein, K. Donnellan, S. Kripke, D. Kaplan, H.P. Grice, B. Russell, and P.F. Strawson.

PHIL 450R
Interdisciplinary Senior Ethics Seminar
3:3:0 F, Sp
• Prerequisite: Instructor consent
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
3:3:0 F
• Prerequisite: PHIL 2050
Offers detailed investigation of selected ethical theories central to the Western philosophical tradition. Repeatable up to 12 credit hours with different topics.

PHIL 482R
Internship
1-3:0.5:2-10
• Prerequisite: by 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 experience in selected area of service. Super-

vised by agency representative. Must be approved by department chair and written contracts must be completed and signed. Repeatable for a maximum of six credit hours.

PHIL 490R
Independent Study
1-3:0-3:0-12 Su, F, Sp
• Prerequisite: Departmental Approval
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
3:3:0 F, Sp
• Prerequisite: PHIL 1250, Senior 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 portfolio helpful in applying to graduate school or seeking employment. The portfolio includes the senior research thesis, an abstract of the thesis, three letters of recommendation, a Curriculum Vita, a Personal Statement, and a PowerPoint presentation.

PHIL 492R
Advanced Topics in Philosophy
1-3:1-3:0 Sp
• Prerequisite: PHIL 1000, PHIL 2050, or instructor's approval
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.

RLST 3540 (Cross-listed as PHIL 3540)
Christian Ethics
3:3:0 Not 05-06
• Prerequisite: PHIL 1610
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 as PHIL 3610)
Introduction to Christian Theology
3:3:0 Not 05-06
• Prerequisite: PHIL 1610
Examines key developments and conceptions in Christian theology through historical and conceptual methodologies.

RLST 3650 (Cross-listed as PHIL 3650)
Approaches to Religious Studies
3:3:0 Sp
• Prerequisite: PHIL 2050
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 366R (Cross-listed as PHIL 366R)
Issues in Religious Studies
3:3:0 F
• Prerequisite: PHIL 2050
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 nine hours of credit.

PHYSICAL EDUCATION AND RECREATION

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MISSION STATEMENT

The Mission of the Department of Physical Education and Recreation is consistent with the School's Mission in its commitment to providing students with excellent professional, ethical, and exciting educational experiences through modern, effective pedagogical and scholarly approaches. Baccalaureate programs offered in Physical Education Teacher Education (PETE), and Physical Education and Recreation with emphases in Exercise Science (PES), and Outdoor Recreation Management (REC) provide a broad discipline approach for optimal promotion of physical activity, recreation, fitness, health, wellness, and quality of life for all. These programs are complemented with opportunities for baccalaureate-level study in Integrated Studies with areas of emphasis in both Physical Education and Recreation. These degrees are supported by associate degrees (AA/AS) offered in Physical Education or Recreation. The curricula are balanced in theory and application and are specifically designed to provide students with experiential education that promotes leadership, teamwork, service learning, values, diversity, and life long learning. To best serve our students, curricula have been designed to reflect current market demands. Depending on the specific area of study, graduates from this program will possess exceptional knowledge and skills in the following areas:

- Coaching
- Exercise Science
- Experiential Education
- Health and Fitness Promotion
- Kinesiology
- Outdoor Leadership
- Physical Education Pedagogy
- Recreation
- Resource Management

In addition to preparing students for professional opportunities or graduate study in related fields, the program is intended to prepare all students for a variety of professional certifications offered in their respective fields of study. The faculty in the Department work collaboratively and strive to support the Mission through our commitment to outstanding teaching, mentorship, service, and professional and scholarly development.

PROGRAMS

The Department of Physical Education and Recreation is excited to announce that we are offering two new 4-year degrees. One new degree offers a BA or BS in Physical Education with a choice of emphasis in Exercise Science or Outdoor Recreation Management. Students completing the Exercise Science emphasis will be qualified for a variety of jobs including personal training, fitness and health promotion, exercise testing, corporate wellness, clinical exercise physiology, and coaching. This is also a great major that could lead to acceptance into medical, dental, physical therapy and other professional or graduate schools.

There has been considerable interest in the Exercise Science emphasis. The curriculum has been designed to address student needs and market demand. The program is rigorous, but fun and rewarding. Several of the classes offer a great balance between classroom information and laboratory experiences. This gives students the chance to practice and understand better what they are learning in the classroom. We have an exercise science laboratory with the ability to test body composition, VO2 max, lactate levels, anaerobic power, blood pressure and heart rate responses to exercise, and several other exercise parameters. We have developed information packets for students that are available in the Physical Education and Recreation Department. Jason Slack is the advisor and is available to help students with any questions that they may have. He can be contacted at (801) 863-7488 or slackja@uvsc.edu.

The second emphasis is the new Physical Education and Recreation Bachelor degree in Outdoor Recreation Management. Shayne Galloway is the Program Coordinator and Advisor for this new degree and can be contacted at gallowsh@uvsc.edu.

The second new Bachelors degree is the Physical Education Teacher Education (PETE) degree. This program is designed to prepare quality candidates to teach developmentally appropriate physical education to all K-12 students. Successful completion of this program leads to Licensure in the State of Utah.

Graduates from the UVSC Physical Education K-12 Teacher Education (PETE) program will be specifically qualified to teach developmentally appropriate physical education to the increasingly diverse population of students in the K-12 schools in the State of Utah. Their preparation will help meet the anticipated demands for quality elementary, as well as secondary, physical educators in the twenty-first century. Dr. Shaunna McGhie is the new PETE program coordinator and can be contacted at mcghiesh@uvsc.edu.

There is also a new Minor in Physical Education which can be combined with other college-wide bachelor degrees. The minor provides students with a broad academic knowledge of the foundational and scientific principles in the field of Physical Education as well as exposure to teaching Physical Education and or coaching in the public schools.

AA/AS PRE MAJOR IN PHYSICAL EDUCATION AND RECREATION — 62 CREDITS

General Education Requirements:	35 Credits
• Complete General Education requirements as detailed in the General Education section of this catalog; ZOOL 1090 and ZOOL 2020 strongly recommended (for PE majors) for the Biology and additional Biology or Physical Science distribution courses.	
Specialty Core Requirements:	16 Credits
Complete one of the following emphases (see detail below):	
• Physical Education	
• Recreation	
Elective Requirements:	11 Credits
• For AS degree: Any Course 1000 or higher	11
or For AA degree: Same Foreign Language	10
and Any Course 1000 or higher	1
Graduation Requirements:	
1 Completion of a minimum of 62 semester credits.	
2 Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)	

AA/AS PRE MAJOR IN PHYSICAL EDUCATION AND RECREATION (CON'T) 62 CREDITS

3 Residency hours—minimum of 20 credit hours through course attendance at UVSC.
4 Completion of GE and specified departmental requirements.
5 For the AA degree, completion of 10 credit hours of course work from one language.

Note:
Students with an interest in a career in physical education are strongly urged to meet with the Physical Education Department or an advisor in the department of the institution to which they wish to transfer so that transferability of classes is assured.

Physical Education

Specialty Core Requirements: 16 Credits
- PES 2700 Foundations of Physical Education and Recreation 3

Complete 13 credits from the following: 13
- PES 2050 Aerobic Instructor Training
- or PES 3250 Teaching and Coaching Aerobics and Cheerleading
- PETE 2100 Skill Analysis I
- PES 2200 Officiating Baseball and Softball
- PES 2210 Officiating Basketball
- PES 2300 Introduction to Fundamentals of Athletic Coaching
- PES 2500 Sports Medicine
- and PES 2510 Sports Medicine Lab
- or PES 3300 Sport Injuries
- PES 281R Cooperative Work Experience, maximum of 2 credits may be applied to graduation.
- PES 3220 Teaching and Coaching Basketball
- PES 3230 Teaching and Coaching Football
- PES 3240 Teaching and Coaching Volleyball
- PES 3260 Teaching and Coaching Baseball and Softball
- PES 3270 Methods of Teaching Fitness
- PES 3400 Teaching Physical Education in Elementary School
- PES 3500 Kinesiology
- PES 3700 Exercise Physiology
- PES 3750 Psychosocial Aspects of Human Performance
- Any PE Activity course (PES 1000 to PES 201R), excluding PES 1097, maximum of 2 credits may be applied to graduation.
- Any PES or PETE courses approved by department (maximum of 2 hours may be applied to graduation)

Recreation

Specialty Core Requirements: 16 Credits
- REC 3100 Recreation Program Planning 3
- REC 3400 Recreation Risk Management 3
- REC 3600 Foundations of Recreation and Leisure 2

Complete 8 credits from the following: 8
- REC 1527 Rock Climbing I
- REC 1525 Mountaineering
- REC 1550 Off-Road Cycling
- REC 1350 Scuba Diving I
- REC 1351 Scuba Diving II
- REC 1505 Whitewater Kayaking
- REC 1500 Canoeing
- REC 2500 Introduction to Adventure Recreation
- Any other REC course 1110 to 3300, a maximum of 4 credits may be applied to graduation.

BS PHYSICAL EDUCATION AND RECREATION 120 CREDITS

General Education Requirements: 36 Credits
- ENGL 1010 Introduction to Writing 3
- ENGL 2010 Intermediate Writing—Humanities/Social Sciences 3
- or ENGL 2020 Intermediate Writing—Science and Technology
- MATH 1050 College Algebra 4

Complete one of the following: 3
- HIST 2700 US History to 1877
- and HIST 2710 US History since 1877
- HIST 1700 American Civilization
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health and Wellness

BS PHYSICAL EDUCATION AND RECREATION (CON'T)120 CREDITS

- or PES 1097 Fitness for Life (required for Exercise Science emphasis) 2

Distribution Courses
- BIOL 1010 General Biology 3
- Physical Science 3
- ZOOL 1090 Introduction to Human Anatomy and Psychology 3
- Humanities Distribution 3
- Fine Arts Distribution 3
- Social/Behavioral Science 3

Discipline Core Requirements: 17 Credits
- PES 2700 Foundations of Physical Education and Recreation 3
- PES 3500 Kinesiology 3
- PES 3550 Motor Learning and Development 3
- PES 3750 Psychosocial Aspects of Human Performance 2
- PES 3850 Ethical Concerns in Physical Education and Recreation 3
- PES 4300 Research Methods in Physical Education and Recreation 3

Specialty Core Requirements: 67 Credits

Complete one of the following emphases:
- Exercies Science 67
- or Outdoor Recreation Management 67

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 UVSC. with at least 10 hours earned in the last 45 hours.
4 Completion of GE and specified departmental requirements.

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

Specialty Core Requirements: 44 Credits
- CHEM 1110 Elementary Chemistry for the Health Sciences 4
- ZOOL 2320 Human Anatomy 4
- ZOOL 2420 Human Physiology 4
- PES 2500 Sports Medicine 3
- PES 2510 Sports Medicine Lab 1
- PES 3270 Methods of Teaching Fitness 3
- PES 3700 Exercise Physiology 4
- PES 3730 Biomechanics 3
- PES 4000 Exercise Testing and Prescription 3
- PES 4100 Fitness Across the Lifespan 3
- PES 4400 Physical Activity Promotion in the Community 3
- PES 4900 Exercise Science Senior Practicum 3
- PES 4950 Senior Seminar 2
- MATH 2040 Principles of Statistics 4

Specialty Elective Requirements: 23Credits
- Any courses 1000-level or higher 23

Outdoor Recreation Management

Specialty Core Requirements: 37 Credits
- REC 1542 Wilderness First Responder 2
- REC 2400 Principles of Experiential Education in Recreation 3
- REC 3100 Recreation Program Planning 3
- REC 3400 Recreation Risk Management 3
- REC 3500 Recreation Administration 3
- REC 4200 Outdoor Leadership and Management Practicum 2
- REC 482R Senior Internship 3
- REC 4950 Senior Seminar 3

Complete four credits from the following land-based skills courses: 4
- REC 1525 Mountaineering
- REC 1527 Rock Climbing I
- REC 1528 Rock Climbing II
- REC 1535 Backpacking
- REC 1550 Off-Road Cycling
- REC 2005 Ropes Course Facilitation
- REC 2010 Avalanche Awareness
- REC 3300 Wilderness Skills

Complete two credits from the following water-based skills courses: 2
- REC 1350 Scuba Diving I
- REC 1351 Scuba Diving II
- REC 1500 Canoeing
- REC 1505 Whitewater Kayaking
- REC 1513 Fly Casting I

BS PHYSICAL EDUCATION AND RECREATION (CON'T)120 CREDITS

Complete three of the following classes: 9
- REC 3700 Park Interpretation
- REC 4400 Park Management
- REC 4500 Visitor Behavior
- REC 2450 Rock Climbing Site Management and Facilitation
- or REC 2600 Principles of Outdoor and Adventure Education
- or REC 2650 Principles of Applications of Challenge Education in Recreation
- or REC 2750 Principles of Water-Based Adventure Education

Specialty Elective Requirements: 30Credits
- Any courses 1000-level or higher 30

BS PHYSICAL EDUCATION TEACHER EDUCATION 120 CREDITS

Matriculation Requirements:
1 Acceptance to the Secondary Education Program.
2 Complete the following with a grade of "C" or better: PES 1097, PES 2700, PETE 2100, PETE 2200, PETE 2300, and PETE 3100.
3 Submit and pass matriculation essay with departmental evaluation and approval (see advisor).

General Education Requirements: 37 Credits
- ENGL 1010 Introduction to Writing 3
- ENGL 2020 Intermediate Writing—Science and Technology 3
- MATH 1050 College Algebra 4

Complete one of the following: 3
- HIST 2700 US History to 1877
- and HIST 2710 US History since 1877
- HIST 1700 American Civilization
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values 3
- PES 1097 Fitness for Life 2

Distribution Courses
- BIOL 1010 General Biology 3
- or BIOL 1610 College Biology I
- CHEM 1010 Introduction to Chemistry 3
- or CHEM 1110 Elementary Chemistry for the Health Sciences
- ZOOL 1090 Introduction to Human Anatomy and Psychology 3
- DANC 3400 Dance in the Elementary School (strongly recommended for the Fine Arts Distribution) 2
- and MUSC 3400 Music in the Elementary School 2
- PSY 1100 Human Development Life Span 3
- COMM 1020 Public Speaking 3

Discipline Core Requirements: 74 Credits
- PES 2700 Foundations of Physical Education and Recreation 3
- PES 3300 Sports Injuries 2
- PES 3500 Kinesiology 3
- PES 3550 Motor Learning and Development 3
- PES 3700 Exercise Psychology 4
- PES 3750 Psychosocial Aspects of Human Performance 2
- PETE 2100 Skill Analysis I 3
- PETE 2200 Skill Analysis II 3
- PETE 2300 Skill Analysis III 3
- PETE 3100 Physical Education Pedagogy 3
- PETE 3450 Special Populations in Physical Education 3
- PETE 4200 Methods of Teaching Elementary Physical Education 3
- PETE 4210 Elementary Physical Education Field Experience 1
- PETE 4250 Methods of Teaching Secondary Physical Education 3
- PETE 4260 Secondary Physical Education Field Experience 1
- PETE 4400 Assessment in Physical Education 3
- PETE 4900 Student Teaching Seminar for Physical Education 1

Secondary Education Courses
- EDSC 2540 Development of the Adolescent Student 2
- EDSC 3000 Educational Psychology 3
- EDSC 3050 Foundations of American Education 2
- EDSC 3250 Instructional Media 2
- EDSC 3400 Exceptional Students 2
- EDSC 4200 Classroom Management I 1

BS PHYSICAL EDUCATION TEACHER EDUCATION (CON'T) 120 CREDITS

• EDSC	4250	Classroom Management II	1
• EDSC	4440	Content Area Reading and Writing	3
• EDSC	4450	Multicultural Instruction/ESL	2
• EDSC	4550	Secondary Curriculum Instruction and Assessment	4
• EDSC	4850	Student Teaching—Secondary	8
Elective Requirements:			9 Credits
• Any 1000-level or higher			9

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 2.5 or above, with no grades below C in Core and no grade below a B- in Education courses.
3. Residency hours—minimum of 30 credit hours through course attendance at UVSC, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.

BA/BS IN INTEGRATED STUDIES 123 CREDITS

The following Integrated Studies emphases are available (see the Integrated Studies section of this catalog for complete degree requirement listings):

- Outdoor Leadership
- Physical Education

MINOR IN PHYSICAL EDUCATION 24 CREDITS

Discipline Core Requirements:			17 Credits
• PETE	2100	Skill Analysis I	3
• PES	2700	Foundations of Physical Education and Recreation	3
• PES	3270	Methods of Teaching Fitness	3
• PES	3300	Sports Injuries	2
• PES	3550	Motor Learning and Development	3
• PES	3700	Exercise Physiology	4
• PETE	4250	Methods of Teaching Secondary Physical Education	3
• PETE	4260	Secondary Physical Education Field Experience	1
Choose one of the following:			2
• PES	3220	Teaching and Coaching Basketball	
• PES	3230	Teaching and Coaching Football	
• PES	3240	Teaching and Coaching Volleyball	
• PES	3250	Teaching and Coaching Aerobics and Cheerleading	
• PES	3260	Teaching and Coaching Baseball and Softball	

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

PES 1010 GE
Aerobics I
1:0.5:1.5 Su, F, Sp
A co-ed aerobic dance-exercise class that introduces aerobic conditioning principles designed to develop cardiovascular/respiratory systems, strength, coordination, and flexibility. Teaches choreographed routines involving jogging, dancing, and vigorous exercise set to music.

PES 1011 GE
Aerobics II
1:0.5:1.5 Su, F, Sp
• Prerequisite: PES 1010 or instructor approval
A co-ed aerobic dance-exercise class that emphasizes increased knowledge in cardiovascular training, flexibility, and exercise injuries. Students acquire a more strenuous and advanced level of aerobic proficiency through high impact routines set to music.

PES 1050 GE
Powertone
1:0.5:1.5 Su, F, Sp
For students interested in weight training in a group exercise setting. Develops, strengthens, and defines muscle groups using bars and barbells set to music.

PES 1057 GE
Power Yoga
1:0.5:1.5 Su, F, Sp
For students interested in bringing balance to both body and mind. Uses warm-ups, breathing techniques and postures that are designed to stimulate, strengthen and focus on flexibility and calmness concurrently.

PES 1085 GE
Weight Training I
1:0.5:1.5 Su, F, Sp
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.

PES 1086 GE
Weight Training II
1:0.5:1.5 Su, F, Sp
• Prerequisite: PES 1085 or instructor approval
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.

PES 1087 GE
Weight Training III
1:0.5:1.5 Not 05-06
• Prerequisite: PES 1086 or instructor approval
An advanced course for students and varsity athletes who wish to maintain their individualized weight training program. Students will write their own program and set standards or goals that are attainable throughout the training period.

PES 1097 FE
Fitness for Life
2:2:0 Su, F, Sp
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.

PES 1100 GE
Tennis I
1:0.5:1.5 Su, F, Sp
Covers the basic concepts of the game. Teaches general tennis skills including scoring, forehand, backhand, overhead, volley and net game, and service. Teaches basic tennis rules and strategy techniques. Includes labs, lectures, audio-visual, practice and inter-class participation. Taught on block only.

PES 1101 GE
Tennis II
1:0.5:1.5 Su, F, Sp
• Prerequisite: PES 1100 or instructor approval
Covers more advanced techniques of tennis. Includes volley and half volley (net game) and technical shots - drop, lob and top spin. Includes labs, lectures, audio-visual, practice and inter-class participation. Covers the more competitive strategies for both singles and doubles. Taught on block only.

PES 1105 GE
Badminton
1:0.5:1.5 Sp
Covers basic concepts of badminton. Includes scoring, forehand, backhand, overhead, net game, and service. Studies strategy techniques for both singles and doubles. Uses labs, lectures, audio-visual, practice and inter-class participation. Emphasizes skills, fundamentals, conditioning, and rules of the sport.

PES 1110 GE
Racquetball I
1:0.5:1.5 Su, F, Sp
Covers basic fundamentals of racquetball. Teaches the skills, rules and strategies necessary to play and enjoy racquetball. Uses demonstrations and labs, practice and inter-class participation.

PES 1111 GE
Racquetball II
1:0.5:1.5 F, Sp
• Prerequisite: PES 1110 or instructor approval
Includes advanced skills, rules and strategies in singles, doubles and cut-throat matches. Uses demonstration and labs, practice and inter-class participation. Successful completers should have developed a minimum of Level C skills.

PES 1130 GE
Golf I
1:0.5:1.5 Su, F, Sp
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. Provides practice rounds leading to in-class tournaments. Uses demonstrations and labs, practice and inter-class participation. Taught on block only.

PES 1131 GE
Golf II
1:0.5:1.5 Su, F, Sp
• Prerequisite: PES 1130 or instructor approval
Designed to teach students advanced golf skills, rules, and strategies to be used in inter-class tournaments. Evaluates individual golf game strengths and weaknesses. Emphasizes playing according to USGA rules. Taught on block only.

PES 1135 GE
Archery I
1:0.5:1.5 F, Sp
For beginners. Covers basic concepts of archery, both for target shooting and field hunting. Includes use of re-curve and compound bows. Studies the language of archery. Includes laboratory sessions (both indoors and outdoors when weather permits), video instruction, demonstration, and shooting practice. Taught on block only.

PES 1136 GE
Archery II
1:0.5:1.5 F, Sp
• Prerequisite: PES 1135 or instructor approval
Builds upon the basic concepts learned in PES 1135. Covers skills, fundamentals, conditioning, history, and rules of the sport. Includes lecture, labs, demonstration and practice (outdoors when weather permits), and video presentations. Taught on block only.

PES 1145 GE
Bowling I
1:0.5:1.5 F, Sp
Teaches bowling skills and rules to beginning bowlers. Improves skills of advanced bowlers. Covers scoring procedures. Follows National Bowling Council techniques and rules of American Bowling Congress and Women International Bowling Congress. Includes lecture and participation.

PES 1146 GE
Bowling II
1:0.5:1.5 F, Sp
For those with intermediate bowling skills. Teaches techniques of advanced bowling. Studies rules and strategies. Enhances enjoyment, commitment, and performance of the sport of bowling.

PES 1155 GE
Beginning Fencing
1:0.5:1.5 F, Sp
Teaches fencing strategy, analysis, focus form and precision. Provides aerobic exercise and analyzes fencing style. Completers should be familiar with competition rules, competition officiating and will participate in class tournament at the novice level.

PES 1200 GE
Basketball I
1:0.5:1.5 F, Sp
An introductory course designed to teach the basic skills of shooting, passing, ball handling, rebounding, etc. Introduces 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 GE
Basketball II
1:0.5:1.5 F, Sp
• Prerequisite: PES 1200 or instructor approval
Teaches advanced skills of shooting, passing, ball handling, rebounding, etc. Stresses fun and competition. Provides regular scrimmage time. Includes an exciting class tournament during the course.

PES 1210 GE
Volleyball I
1:0.5:1.5 F, Sp
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 GE
Volleyball II
1:0.5:1.5 F, Sp
• Prerequisite: PES 1210 or instructor approval
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 scrimmages.

PES 1212 GE
Volleyball III
1:0.5:1.5 F, Sp
Teaches volleyball skills and team concepts for advanced players. Briefly reviews fundamentals and rules. Teaches variable-size team competition. Includes labs, lectures, audio-visuals, practice, and scrimmages.

PES 1214 GE
Volleyball Club Team
1:0:2
• Prerequisite: Instructor approval
For men's volleyball club team. Includes practice and competitive team play. Requires demonstrated advanced skills through try-outs. May be repeated once for credit.

PES 1230 GE
Soccer I
1:0.5:1.5 F, Sp
Covers the basic concepts of soccer including ball control, heading, trapping, passing or dribbling and shooting. Teaches the rules of the game and the strategy of both defense and offense. Includes lecture, media, demonstration and actual game situations. Stresses coordination, balance, agility, speed, endurance, team effort and team play.

PES 1231
Soccer II
1:0.5:1.5
• Prerequisite: PES 1230 or Instructor Approval
Expands upon and further develops the fundamental skills, techniques, tactics and rules from the Soccer I course. Covers the following topics: defensive soccer tactics, offensive soccer tactics, soccer systems & strategies and conditioning for soccer. Topics will be practiced by using a variety of drills on the field individually and in groups/teams in order to further develop playing performance in real game settings. Examines soccer rules and regulations established by FIFA (Federation Internationale de Football Association) and (United States Soccer Federation) USSF.

PES 1234 GE
Soccer Club Team
1:0.5:1.5
• Prerequisite: Instructor approval
For men's and women's soccer team members. Designed for participation in competitive practice and team play. Advanced fundamentals and skills will be drilled. May be repeated once for credit toward graduation.

PES 1254 GE
Lacrosse Club Team
1:0.5:1.5
For men's lacrosse club team. Presents an overview of the history of lacrosse. Includes practice and competitive team play. Requires demonstrated advanced skills through tryouts. May be repeated once for credit.

PES 1260
Ice Hockey
1:0.5:1.5
Teaches basic ice hockey skills including: skating (forwards, backwards, crossovers, spins, starts and stops), Stick handling, Passing, Shooting. Students will also learn and practice offensive and defensive positioning, culminating in participating in several hockey games.

PES 1300 GE
Swimming I
1:0.5:1.5 F, Sp
For non-swimmers and others interested in improving and maintaining their swimming ability. Students progress at their own pace. Covers breathing techniques, self rescue, floating, back floating, back stroke, breast stroke and front crawl. Students who pass off all of the required skills early will be put on an individualized swimming workout schedule. Individual attention will be given to students as needed.

PES 1301 GE
Swimming II
1:0.5:1.5 F, Sp
For swimmers who have a working knowledge of the basic strokes and are interested in improving their level of swimming. Provides an individually designed workout schedule for each student.

Emphasizes stroke technique work on an individual basis.

PES 1315 GE
Water Aerobics
1:0.5:1.5 F
For students interested in an alternative aerobics class. Introduces aerobic conditioning principles designed to develop the cardiovascular - respiratory systems, strength, and coordination.

PES 1405 GE
Women's Safety Awareness and Self-Defense
1:0.5:1.5 Su, F, Sp
A beginning course in women's 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.

PES 1410 GE
Introduction to Tai Chi
1:0.5:1.5 F, Sp
Introduces to students an ancient martial exercise developed in China. Studies an effortless, low-impact, rhythmical ballet-like exercise that is a superior activity for all age levels. Stresses slow respiration and balanced, relaxed, slow postures. Promotes increased blood circulation, joint and bone strength. Focuses on the Yang style short form solo exercise which may be an effective means of self-defense.

PES 1415
Survey of Martial Arts
1:0.5:1.5
Introduces and surveys many of the popular styles of marial arts. Includes brief background of history, learning fundamental kicks, strikes, blocks, holds and other moves/techniques of the following martial arts: Kenpo Karate, Jiu Jitsu, Muay Thai (kick boxing), Tai Chi, and self-defense strategies.

PES 1425 GE
Jiu Jitsu I
1:0.5:1.5 F, Sp
A beginning class in the martial art of Jiu Jitsu with an emphasis on Russian Sambo Jiu Jitsu also known as Combat Jiu Jitsu. Learn the basics of Jiu Jitsu including: grappling, take downs, escapes, arm locks, etc.

PES 1426
Jiu Jitsu II
1:0.5:1.5
An intermediate class in the marital art of Jiu Jitsu. Practices and improves on the basics of Jiu Jitsu including: grappling, take downs, escapes, and arm locks.

PES 1435 GE
Kenpo Karate I
1:0.5:1.5 Su, F, Sp
A beginning course in the martial art of Kenpo Karate. Introduces basic blocks, punches, strikes, and kicks. Emphasizes self defense techniques.

PES 1436 GE
Kenpo Karate II
1:0.5:1.5 Su, F, Sp
• Prerequisite: PES 1435 or Yellow Belt rank in Kenpo Karate
An intermediate course in Kenpo Karate for the student with the rank of yellow belt and above. Students work at their own pace and progress toward the next rank in the Kenpo system.

PES 1440
Aikido
1:0.5:1.5
An intermediate course in Kenpo Karate for the student with the rank of yellow belt and above. Students work at their own pace and progress toward the next rank in the Kenpo system.

PES 1460 GE
Kickboxing I
1:0.5:1.5 F, Sp
A beginning course in the martial art of kickboxing (Muay Thai). Discusses the history of Muay Thai, ring strategy, and the rules of the ring. Includes leg strengthening, shadow boxing, stretching, punches, elbows, kicks, and knees while contact is made to bags and kicking shields. Teaches self-defense, ring strategy and the requirements to advance to the second level of kickboxing (Muay Thai). Includes intense aerobic workout.

PES 1605 GE
Skiing I
1:0.5:1.5 Sp
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 UVSC and Sundance instructors. Students are required to have own equipment and purchase a half-day pass each ski day.

PES 1606 GE
Skiing II
1:0.5:1.5 Sp
• Prerequisite: PES 1605 or instructor approval
For the intermediate skier. Designed for those who already know how to ski 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 UVSC and Sundance instructors. Students are required to have own equipment and purchase a half-day pass each ski day.

PES 1607 GE
Skiing III
1:0.5:1.5 Sp
• Prerequisite: PES 1606 or instructor approval
For the advanced skier (Where Eagles Dare). Covers skiing on all types of terrain and conditions. Includes racing, powder, moguls, trick skiing and touring. Uses demonstration and participation. Grading is based on attendance. Lessons are at the Sundance Ski Resort. (Transportation is not provided.) Uses UVSC and Sundance instructors. Students are required to have own equipment and purchase a half-day pass each ski day.

PES 1615 GE
Snowboarding
1:0.5:1.5 Sp
Provides a fun challenge to snow boarders of every ability level, starting with the beginning novice to the advanced hot-dogger. Gives instruction in straight turns, free style moves and slalom courses. The main objective is to develop skill and have fun.

PES 1620 GE
Ski Instructor Training
1:0.5:1.5 Sp
For advanced skiers who are interested in becoming ski instructors. Discusses the potential in the skiing industry and professionalism as a ski instructor. Introduces American Teaching System. Presents the methodology of ski instruction to intermediate and beginning skiers. Includes lecture and actual ski time on the hill (transportation is not provided). Students are required to have their own equipment and purchase a half-day pass each ski day at a reduced rate.

PES 1625 GE
Cross Country Skiing
1:0.5:1.5 Sp
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.

PES 1670 GE
Ice Skating
1:0.5:1.5 F, Sp
Teaches basic ice skating skills including stroking, turns, crossovers, spins, and jumps. Each student will learn a simple choreographed free style program set to music.

PES 200R
Intercollegiate Athletics
1:0.5:1.5 F, Sp
• Prerequisite: Coach approval
May be repeated once for credit towards graduation.

PES 201R GE
Elite Precision Team
1:0.5:1.5
• Prerequisite: Audition required
For students selected to be members of the Elite Precision Team. Includes performances at home basketball games, competition, and the year end showcase. Studies dance styles such as jazz, funk, hip hop, and lyrical. May be repeated once for credit towards graduation.

PES 2050
Aerobic Instructor Training
2:2:0 F, Sp
For students interested in becoming Certified Aerobic Instructors. Teaches basic concepts of anatomy, physiology, components of fitness, nutrition, and exercise injuries. Emphasizes the use of music, cueing and choreography. Prepares students for the AFAA Certification test.

PES 2200
Officiating Baseball and Softball
2:2:0 F
For students wishing to officiate in interscholastic, intramural, and community games. Teaches rules, techniques, problems and procedures in officiating. Gives National Federation or OSA examinations. Introduces softball/baseball National Federation publications such as Rule Book, Case Book, Umpires Manual and Rules (Simplified and Illustrated). Utilizes lecture, media, guest lecturers, practical game situations, etc.

PES 2210
Officiating Basketball
2:2:0 F, Sp
For students wishing to officiate in intramural and community programs. Teaches rules, officiating, techniques, problems and procedures. Uses lecture, media, guest lecturers and practical game situations. Gives National Federation or OSA examinations. Introduces National Federation publications, such as Rule Book, Case Book, Umpires Manual, and Rules (Simplified and Illustrated).

PES 2220 GE
Officiating Volleyball
2:2:0 F
Provides students with the necessary skills to officiate the game of volleyball. Teaches both collegiate and high school rules and protocol. Provides students with a working understanding of officiating volleyball, as well as the opportunities for employment, through match observations and practical experience. Prepares students for certification as high school entry level official.

PES 2300
Introduction to Fundamentals of Athletic Coaching
2:2:0 F, Sp
For coaches of youth and other interested community members. Overviews methods, teaching techniques, coaching philosophies and practical experiences in both team and individual sports. Includes lecture and demonstration, media presentations, game scouting, and field project and class journals. Stresses motivation, selection, discipline, management, and the technical aspects of coaching.

PES 2500
Sports Medicine
3:3:0 F, Sp
Teaches recognition, cause, prevention and treatment of sports-related injuries. Provides practical experience in taping, injury evaluation, and rehabilitation.

PES 2510
Sports Medicine Lab
1:0:3 F, Sp
• Corequisite: PES 2500
Teaches taping and wrapping techniques for prevention/treatment of sports related injuries. Teaches evaluation techniques for the major joints of the body.

PES 2700
Foundations of Physical Education and Recreation
3:3:0 Su, F, Sp
Introduces the study of physical education. Studies the history and philosophy of the field of Physical Education. Analyzes problems in areas covered under the umbrella of physical education. Explores the physical education/sport subdisciplines and related career and employment opportunities in this area.

PES 281R
Cooperative Work Experience
2-9:1:5-40 Su, F, Sp
• Prerequisite: Approval of Cooperative Coordinator
Designed for Physical Education and Recreation majors. Provides paid on-the-job experiences in the student's major. 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. Credit is determined by the number of hours a student works during the semester. May be repeated for a maximum of 16 credits.

PES 3220
Teaching and Coaching Basketball
2:2:0 Sp
Designed for those planning to coach basketball. Overviews methods, teaching techniques, coaching philosophies and practical experiences in both team and individual sports. Includes lecture and demonstration, media presentations, game scouting and field project, and class journals.

PES 3230
Teaching and Coaching Football
2:2:0 F
Prepares students for coaching football. Covers basic offensive and defensive philosophy and techniques. Covers organization, equipment, conditioning, and safety.

PES 3240
Teaching and Coaching Volleyball
2:2:0 F
For any coach, volleyball player or fan interested in learning more about one of the fastest growing sports in America. Teaches how to coach volleyball. Presents principles that coaches or players can use as a foundation to create their own game. Develops a greater appreciation for volleyball. Stresses the skills, fundamentals, rules, teaching techniques, and coaching strategies behind the sport. Includes labs, videos, and guest lecturers.

PES 3250
Teaching and Coaching Aerobics and Cheerleading
2:2:0 F, Sp
Teaches basic aerobic principles including concepts of anatomy, physiology, and exercise injuries. Emphasizes choreography, cueing, and the use of music. Also, introduces basic cheerleading skills and methods of teaching kicks, jumps, and tumbling. Presents skills necessary to teach an aerobic class and advise a cheerleading program.

PES 3260
Teaching and Coaching Baseball and Softball
2:2:0 Sp
Designed for those planning to coach baseball or softball. Covers teaching techniques, coaching philosophies and building a program. Includes strategy of team selection and offensive and defensive planning. Studies game skills.

PES 3270
Methods of Teaching Fitness
3:3:0 F, Sp
• Prerequisite: PES 1097, PES 2700
Teaches key concepts related to exercise testing and program design for healthy populations and populations with controlled disease. Explores concepts in team, group, and individualized assessment and programming. Emphasizes principles in anatomy, exercise physiology, behavior modification, motivation, health promotion, fitness assessment and prescription. Encourages students to sit for the ACE, IDEA, ACSM HFY, NSCA CPT, or similar certification exams upon course completion.

PES 3300
Sports Injuries
2:2:0 Sp
• Prerequisite: ZOOL 1090
Instructs students in the prevention and treatment of fitness, sport and physical education/performance injuries. Includes basic treatment, taping, First Aid/CPR training and certification.

PES 3400 GE
Teaching Physical Education in Elementary School
2:1:3 F, Sp
For elementary education majors. Presents techniques of teaching fundamental skills in specialized physical education activities. Studies incorporation of physical fitness, movement con-

cepts, specialized motor skills, body management. Includes group interaction and cooperation.

PES 3500
Kinesiology
3:3:0 F, Sp
• Prerequisite: ZOOL 1090
Studies human movement. Includes the structure of the human body and fundamental mechanics. Emphasizes kinesiological and mechanical analysis.

PES 3550
Motor Learning and Development
3:2:3 F, Sp
• Prerequisite: Permission of instructor
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. Analyses 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.

PES 3700 (Cross-listed as ZOOL 3700)
Exercise Physiology
4:3:3 F, Sp
• Prerequisite: ZOOL 1090 or (ZOOL 2320 and ZOOL 2420), MATH 1050
For physical education or education majors with an emphasis in physical education, specializing in coaching or athletic training. Studies physiological responses to exercise. Addresses clinical applications. Requires weekly laboratory.

PES 3730
Biomechanics
3:3:0 Sp
• Prerequisite: PES 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..

PES 3750
Psychosocial Aspects of Human Performance
2:2:0 Sp
• Prerequisite: PSY 1010
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.

PES 3850
Ethical Concerns in Physical Education and Recreation
3:3:0
• Prerequisite: PES 2700
Surveys applied concepts of ethical codes and legal liability. Explores systems used by community and adventure education programs for aspects protective of participants, staff, and institutions.

PES 4000
Exercise Testing and Prescription
3:2:3
• Prerequisite: MATH 1050, ZOOL 1090, PES 1097
Emphasizes information and skills related to exercise testing and prescription in healthy and clinical populations. Teaches American College of Sports Medicine (ACSM) exercise testing guidelines..

PES 4100
Fitness Across the Lifespan
3:3:0
• Prerequisite: ZOOL 1090, PES 3270
Addresses key issues relative to fitness across the lifespan; including, fitness in youth, adult fitness, aging, physical activity program design and implementation, attrition, behavior modification, and the role of exercise in disease prevention and/or management.

PES 4200
Methods of Teaching Secondary Physical Education
3:3:0 Sp
• Prerequisite: PES 3270
• Corequisite: PES 3500
Promotes the analysis and development of secondary physical education curricula. Applies curricular concepts through reading, lecture/discussion, movement, self-appraisal, and teaching teenagers. Application of educational principles and techniques necessary for effective teaching in the secondary school. Emphasizes appropriate selection of curriculum content and transition to teaching/learning models. Involves unit and lesson planning and evaluation.

PES 4300
Research Methods in Physical Education and Recreation
3:3:0
• Prerequisite: PES 3500, PES 3850
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 Physical Education and Recreation.

PES 4400
Physical Activity Promotion in the Community
3:3:0
• Prerequisite: PES 1097, PES 3270, PES 4000
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.

PES 4900
Exercise Science Senior Practicum
3:3:0
• Prerequisite: PES 3700, PES 4000, and PES 4100
Emphasizes application of physical activity promotion in a variety of settings. Options include service learning activities, assessing athletes, working in clinical settings that address assessment and exercise prescription in the elderly, cardiac and pulmonary rehabilitation, and outpatient physical therapy.

PES 4950
Senior Seminar
2:2:0
• Prerequisite: PES 3700, PES 3850, PES 4000
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.

PETE 2100
Skill Analysis I
3:2:3 F
Analyzes fundamental motor skills, movement concepts, and selected fundamental sport skills. Trains students to give effective feedback to individuals learning fundamental motor skills, movement concepts, and selected fundamental sport skills. Teaches methods for developing individualized learning through the use of developmentally appropriate progressions to move students from the pre-control level, through the control, utilization, and proficiency levels for each skill.

PETE 2200
Skill Analysis II
3:2:3 Sp
• Prerequisite: PETE 2100
Builds on concepts covered in PETE 2100. Analyzes a variety of individual and dual sport skills, rules, and strategies. Prepares pre-service physical educators to effectively teach current, as well as yet to be developed, individual and dual sports through analysis of concepts common to individual and dual games and sports. Analyzes and develops developmentally appropriate teaching progressions for individual and dual sport skills. Examines rules and strategies for a variety of individual and dual games and sports.

PETE 2300
Skill Analysis III
3:2:3 F
• Prerequisite: PETE 2200 or permission of instructor
Builds on concepts covered in PETE 2200. Analyzes a variety of team sport skills, rules, and strategies. Prepares pre-service physical educators to effectively teach current, as well as yet to be developed, team sports through analysis of

concepts common to team games and sports. Analyzes and develops developmentally appropriate teaching progressions for team sport skills. Examines rules and strategies for a variety of team games and sports.

PETE 3100
Physical Education Pedagogy
3:2:3
• Prerequisite: PETE 2200, PETE 2300, PES 2700
Promotes the acquisition and application of generic teaching skills for physical education. Conceptualizes and practices of pedagogical behavior for physical education settings. Focuses intensively on effective teaching skills for student skill acquisition. Includes observations and experiences in the public schools. Teaches content necessary to successfully pass the Pedagogy Exam for the American Master Teacher Program (AMTP), and portions of the National Teacher Exam in Physical Education.

PETE 3450
Special Populations in Physical Education
3:2:3
• Prerequisite: EDSP 3400, PETE 4210
Involves planning and conducting physical education programs for children with special needs. Incorporates hands-on experiences working with individual with special needs. Analyzes of a variety of possible adaptations for individuals with physical, sensory, emotional, and/or intellectual impairments.

PETE 4200
Methods of Teaching Elementary Physical Education
3:2:3
• Prerequisite: PETE 3100
• Corequisite: PETE 4210
Promotes the analysis and development of elementary physical education curricula. Applies curricular concepts through reading, lecture/discussion, movement, self-appraisal, and teaching children. Applies eductional 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.

PETE 4210
Elementary Physical Education Field Experience
1:0:3
• Prerequisite: PETE 3100
• Corequisite: PETE 4200
Analyzes elementary physical education curricula through guided observations and controlled teaching experience. Applies curricular concepts through a guided observation, self-appraisal, lesson/unit planning, and teaching children.

as yet to be developed, individual and dual sports through analysis of concepts common to individual and dual games and sports. Analyzes and develops developmentally appropriate teaching progressions for individual and dual sport skills. Examines rules and strategies for a variety of individual and dual games and sports.

PETE 2300
Skill Analysis III
3:2:3 F
• Prerequisite: PETE 2200 or permission of instructor
Builds on concepts covered in PETE 2200. Analyzes a variety of team sport skills, rules, and strategies. Prepares pre-service physical educators to effectively teach current, as well as yet to be developed, team sports through analysis of concepts common to team games and sports. Analyzes and develops developmentally appropriate teaching progressions for team sport skills. Examines rules and strategies for a variety of team games and sports.

PETE 3100
Physical Education Pedagogy
3:2:3
• Prerequisite: PETE 2200, PETE 2300, PES 2700
Promotes the acquisition and application of generic teaching skills for physical education. Conceptualizes and practices of pedagogical behavior for physical education settings. Focuses intensively on effective teaching skills for student skill acquisition. Includes observations and experiences in the public schools. Teaches content necessary to successfully pass the Pedagogy Exam for the American Master Teacher Program (AMTP), and portions of the National Teacher Exam in Physical Education.

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PETE 4210
Elementary Physical Education Field Experience
1:0:3
• Prerequisite: PETE 3100
• Corequisite: PETE 4200
Analyzes elementary physical education curricula through guided observations and controlled teaching experience. Applies curricular concepts through a guided observation, self-appraisal, lesson/unit planning, and teaching children.

PETE 4250
Methods of Teaching Secondary Physical Education
3:2:3
• Prerequisite: PETE 4200 and PETE 4210, or permission of instructor
• Corequisite: PETE 4260
Promotes the analysis and development of secondary physical education curricula. Applies curricular concepts through reading, lecture/discussion, movement, self-appraisal, and teaching teenagers. Application of educational principles and techniques necessary for effective teaching in the secondary school. Emphasizes appropriate selection of curriculum content and transition to teaching/learning models. Involves unit and lesson planning and evaluation.

PETE 4260
Secondary Physical Education Field Experience
1:0:3
• Prerequisite: PES 3410 and PES 3420, or permission of instructor
• Corequisite: PES 4200
Analysis of secondary physical education curricula through guided observations and controlled teaching experiences. Applies curricular concepts through guided observation, self-apprisal, lesson/unit planning, and teaching secondary school students.

PETE 4400
Assessment in Physical Education
3:2:3
• Prerequisite: MATH 1050, PETE 2300, PETE 4210
Examines traditional, alternative, authentic, and performance assessments as they relate to physical education. Encourages use of a variety of authentic assessment techniques. Creates appropriate methods for displaying and disseminating assessment results. Focuses on the use of both formative and summative assessment to enhance student learning. Exposes pre-service physical educators to both quantitative and qualitative research.

PETE 4900
Student Teaching Seminar for Physical Education
1:1:0
• Prerequisite: Admission to Professional Education Program. Successful completion of all professional education and content courses.
• Corequisite: EDSC 4850
Examines each student's teaching experiences. Encourages students to integrate learning from each all professional education and content courses. Discusses concerns related to current teaching experiences as well as future experi-

ences. Investigates job seeking criteria and opportunities. Supports pre-service teachers during their student teaching experience.

REC 1350 GE
Scuba Diving I
1:0.5:1.5 Su, F, Sp
Teaches basic scuba diving techniques, scuba safety and use of scuba equipment in an indoor swimming pool. To certify in scuba, the student must certify independently of the course. Open Water Certification is offered as an option. Uses the Professional Association for Diving Instructions manual. Taught on block only.

REC 1351 GE
Scuba Diving II
1:0.5:1.5 Su, F, Sp
• Prerequisite: REC 1350 or instructor approval
Provides advanced knowledge of scuba techniques. Teaches skills beyond that of the Open Water Course. Teaches natural navigating, compass navigating, light salvage, deep diving, and night diving. Reviews physics laws pertaining to diving and safety procedures. Uses advanced equipment such as compasses and air lift bags. Stresses safety. Uses materials provided by PADI. Taught on block only.

REC 1500 GE
Canoeing
1:0.5:1.5 Su, F, Sp
• Prerequisite: PES 1300 or instructor approval
Teaches basic canoeing techniques including safety, technical information, equipment, paddling skills, canoe maneuvering and help students prepare for ACA (American Canoe Association) certification.

REC 1505 GE
Whitewater Kayaking
2:1:3 Su, Sp
• Prerequisite: PES 1300 or instructor approval
Teaches basic kayaking skills to the beginning kayaker. Includes roll techniques, paddle strokes, eddy turns, ferrying, dangers on the river, and rescue techniques.

REC 1512 GE
Fly Tying I
1:0.5:1.5 Su, F, Sp
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 GE
Fly Casting I
1:0.5:1.5 Su, F, Sp
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.

REC 1517 GE
Board Sailing
1:0.5:1.5 Not 05-06
• Prerequisite: Minimum swimming ability
Covers wind theory, sailing terms, nomenclature, safety rules, site selection, and protection from the elements. Introduces sailing skills. Moves to the water to learn self-rescue techniques. Taught on block only.

REC 1525 GE
Mountaineering
2:1:3 Su, F, Sp
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.

REC 1527 GE
Rock Climbing I
2:1:3 Su, F, Sp
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.

REC 1528 GE
Rock Climbing II
2:1:3 Su, F, Sp
• Prerequisite: 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.

REC 1529 GE
Rock Climbing III
2:1:3 Not 05-06
• Prerequisite: REC 1528 or instructor approval
Teaches advanced rock climbing skills. Includes stretching and injury prevention, advanced training techniques, advanced rescuing, advanced crack, face, and roof climbing techniques. Teaches placing passive and active protection on difficult (5.9-5.11) simulated lead climbs, advanced rescuing, advanced aid climbing on simulated leads, marginal protection and expansion bolt drilling and placement, stretching and injury prevention, and advanced training techniques.

REC 1535 GE
Backpacking
2:1:3 Su, F, Sp
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.

REC 1542
Wilderness First Responder
2:2:0 F, Sp
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).

REC 1550 GE
Off-Road Cycling
2:1:3 Su, F, Sp
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 off-road bicycle riding. Taught on block only.

REC 2005
Ropes Course Facilitation
2:1:3 F
Teaches students how to set up, facilitate, and take down high and lows ropes course events and initiatives. Covers how to plan out a ropes course day, will learn why and how events are chosen and will learn about safety (physical and emotional).

REC 2010 GE
Avalanche Awareness
2:1:2 F, Sp
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.

REC 2400
Principles of Experiential Education in Recreation
3:3:0
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.

REC 2450
Rock Climbing Site Management and Facilitation
3:3:0
• Prerequisite: REC 1527, REC 2400
Teaches top-rope site management and facilitation for instructing student rock climbers. Includes lecture methods and experiential learn-

ing, industry standard presentations and critiques of knot tying, belaying, rappelling, top-rope anchors, beginning lead climbing, and rescue techniques, presentations and critiques of placing passive and active anchors on simulated lead climbs and multi-pitch belaying. Teaches self and partner rescuing, ascending, route finding, crack and face climbing techniques, aid climbing, and soft skills to facilitate a positive and safe student experience. Features a trip to a regional climbing location and indoor climbing assignments outside of class. Prepares students to seek professional certification.

REC 2500 GE
Introduction to Adventure Recreation
2:1:3 Not 05-06
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.

REC 2600
Principles of Outdoor and Adventure Education
3:3:0
• Prerequisite: 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 and Applications of Challenge Education in Recreation
3:3:0
• Prerequisite: 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.

REC 2700
Leave No Trace Trainer
1:1:0 Sp
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
3:3:0
• Prerequisite: PES 1300, REC 2400
Develops the principles and concepts of experiential education in the water-based context and prepares students for further study and skill development in context specific experiential education programming. Teaches history, theory, and ethics in the domain; as well as, develops experience in the use of learning cycles, facilitation, feedback, processing and effective communication techniques. Includes industry standard presentations and critiques of water safety, hydrology, paddling and stroke technique, self and group rescue techniques, decision-making and judgment, program planning, weather, leave no trace, personal risk managment, and equipment care and maintenance. Addresses risk management from both physical and emotional perspectives. Utilizes pedagogical lecture methods and experiential learning, and participation in experiential education programming. Requires observation and participation in programs outside of class time. Prepares students to seek professional certification.

REC 3100
Recreation Program Planning
3:3:0 Sp
• Prerequisite: PES 2700
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 3300
Wilderness Skills
2:1:3 F, Sp
• Prerequisite: REC 1528 or instructor approval
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.

REC 3400
Recreation Risk Management
3:3:0 F
• Prerequisite: PES 2700
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
3:3:0
• Prerequisite: Junior 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
Park Interpretation
3:3:0 Sp
Investigates theories, principles, and techniques of interpreting park, cultural, and natural resources to the public.

REC 4000
Outdoor Leadership
4:3:2 Sp
• Prerequisite: At least two skills courses chosen from the following: REC 1527, REC 1525, REC 1550, REC 1350, REC 1505, or others with instructor approval
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.

REC 410R
Experiential Learning Expedition
1-6:1:5-15 Su
• Prerequisite: Permission of department
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.

REC 4200
Outdoor Leadership and Management Practicum
2-4:0-6:0-18 Su, F, Sp
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. Participation in a 150 hour department approved supervised outdoor recreation service. Topics vary by practicum experience.

REC 4400
Park Management
3:3:0
• Prerequisite: REC 3400 or REC 3500
Examines topics in park and forest management focusing on management strategies and techniques for addressing common resource and social problems in recreation resource management. Emphazies case studies and problem analysis.

REC 4500
Visitor Behavior
3:3:0
Studies behaviorally-based models and relevant research in outdoor recreation. Provides an in-depth literary analysis of visitor behavior topics including visitor satisfaction, crowding, carrying capacity, motivations, attitudes, preferences, norms, conflicts, and specialization. Using these theoretical concepts, visitor-based management models will be presented and criticized.

REC 482R
Senior Internship
2-4:1:5-15
• Prerequisite: Approval of the instructor
Provides supervised, hands-on field experience for students preparing to take entry[level positions in recreation. May be repeated for a maximum of eight credits toward graduation.

REC 4950
Senior Seminar
3:3:0
• Prerequisite: Must have senior 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.

PHYSICS

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PHYSICS AT UVSC

The whole universe is a fair topic for study in physics. No facet is too small or too big to be considered. Physics is the assembly and application of the rational rules by which nature operates. Every action is played out according to its rules. Physicists seek to learn these rules and often apply them in solving problems in technology and in the environment.

CAREER OPPORTUNITIES

Physicists are valued for their ability to rationally approach complex problems and to construct practical solutions. They find fulfilling and satisfying employment not only in the academic world of teaching and research, but in business, industry, consulting and government. Typically half of all B. S. Physics degree recipients enter the work force immediately in such occupations as those just listed. The rest continue on to graduate school, not only in physics, but in engineering, computer science, medicine and even law or business programs.

Physicists and those trained in physics have been extraordinarily successful in the development of the computer software industry and in the invention and marketing of many key measurement devices widely used in all parts of industry.

PROGRAM

Physics at UVSC is a very personal endeavor. The small size of our department means that a physics major will benefit by working closely with faculty and fellow students. The faculty will often act as personal tutors and mentors, providing opportunities in research and problem solving that may be more difficult to obtain in a larger department. Access to all the requisite computing facilities and research equipment is available. Our program seeks to match our students' interests and meet the requirements of future employers.

Skills learned as a physics student:

- Rational problem solving and logic
- Computational skills
- Computer programing
- Numerical analysis
- Instrumentation, data collection and analysis
- Electronics
- Writing and presentation skills

The program leading to a Bachelor of Science in Physics is outlined below. There are three parts to the degree, consisting of the General Education Requirements (26 credits), the Discipline Core Requirements (71 credits), and the Elective Requirements (23 credits in elective physics and physics related courses). Students intending to pursue graduate studies in physics should plan on filling the Elective Requirements with courses denoted in the following list with a single asterisk. Such students are particularly advised to complete their studies with a senior project and senior thesis. For those intending to enter graduate school in other disciplines, or to enter the job market directly upon graduation, the Elective Requirements may be tailored to suit the student's particular needs or interests. For example, a student wishing to attend medical school may wish to focus elective credit in biology and chemistry, a student wishing to pursue an advanced engineering degree may wish to emphasize engineering courses, etc.

BS IN PHYSICS — 120 CREDITS

General Education Requirements:			**26 Credits**
• ENGL	1010	Introduction to Writing	3
• ENGL	2020	Intermediate Writing—Science and Technology	3
Complete one of the following:			3
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• HIST	1700	American Civilization	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health & Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses			
• Biology			3
• Humanities Distribution			3
• Fine Arts Distribution			3
• Social/Behavioral Science			3
Discipline Core Requirements:			**71 Credits**
• PHYS	2210	Physics for Scientists & Engineers I	4
• PHYS	2215	Physics for Scientists & Engineers I Laboratory	1
• PHYS	2220	Physics for Scientists & Engineers II	4
• PHYS	2225	Physics for Scientists & Engineers II Laboratory	1
• PHYS	3740	Modern Physics	3
• PHYS	3210	Introduction to Experimental Physics I	2
• PHYS	3220	Introduction to Experimental Physics II	2
• PHYS	3230	Principles of Electronics for the Physical Sciences	3
• PHYS	3300	Introduction to Classical Field Theory	3
• PHYS	3400	Classical Mechanics	3
• PHYS	3500	Thermodynamics	3
• PHYS	4210	Advanced Experimental Techniques	3
• PHYS	4300	Computational Physics	3
• PHYS	4410	Electrostatics and Magnetism	3
• PHYS	4600	Optics	3
• PHYS	490R	Seminar (0.5 credits, taken 4 times)	2
• CNS	1250	Object Oriented Programming I	3
• MATH	1210	Calculus I	5
• MATH	1220	Calculus II	5
• MATH	2210	Calculus III	3
• MATH	2280	Ordinary Differential Equations	3
Complete 9 credits from the following:			9
• PHYS	3050	Astrophysics	
• PHYS	4420	Electrodynamics*	
• PHYS	4510	Quantum Mechanics I*	
• PHYS	4520	Quantum Mechanics II*	
• PHYS	4700	Acoustics*	
• PHYS	4800	Solid State Physics*	
• PHYS	499A	Senior Project*	
• PHYS	499B	Senior Thesis*	
Elective Requirements:			**23 Credits**
• Complete any course 1000-level or higher			1
• Complete 22 credits from the following courses not used above (SEE ADVISOR) The selection of elective option coursework must present a coherent theme such as engineering physics, geophysics, environmental physics, computational physics, etc.			22
• BIOL	1610	College Biology I	
• BIOL	1615	College Biology I Laboratory	
• BIOL	1620	College Biology II	
• BIOL	1625	College Biology II Laboratory	
• BIOL	3400	Cell Biology	
• BIOL	3800	Conservation Biology	
• CHEM	1210	Principles of Chemistry I**	
• CHEM	1215	Principles of Chemistry Laboratory I	
• CHEM	1220	Principles of Chemistry II**	
• CHEM	1225	Principles of Chemistry Laboratory II	
• CHEM	2310	Organic Chemistry I	
• CHEM	2320	Organic Chemistry II	
• CHEM	2315	Organic Chemistry I Laboratory	
• CHEM	2325	Organic Chemistry II Laboratory	
• CHEM	3000	Analytical Chemistry	
• CHEM	3020	Environmental Chemistry	
• CHEM	3025	Environmental Chemistry Laboratory	
• CHEM	3600	Biological Chemistry	
• CHEM	3605	Biochemistry Laboratory	
• CNS	1250	Object-Oriented Programming I	
• CNS	1350	Object-Oriented Programming II	

BS IN PHYSICS (CON'T) 120 CREDITS

- CNS 1380 Assembly Language and Computer Architecture
- CNS 2300 Discrete Structures I
- CNS 2400 Object-Oriented Data Structures
- CNS 2600 Fundamentals of Data Communications
- CNS 3060 Operating Systems Theory
- CNS 3240 Introduction to Computational Theory
- CNS 3690 Advanced Topics in Data Communications
- EENG 2740 Digital Design I
- EENG 2750 Circuit Theory
- EENG 3740 Digital Design II
- EENG 4730 Embedded Systems
- ENGR 2000 Engineering Mechanics - Statics
- ENGR 2040 Strength of Materials
- ENGR 2200 Fundamentals of Electric Circuit Analysis
- GEO 1010 Introduction to Geology
- GEO 1015 Introduction to Geology Laboratory
- GEO 1220 Historical Geology
- GEO 1225 Historical Geology Laboratory
- GEO 3080 Earth Materials
- GEO 3210 Environmental Geology
- GEO 3700 Structure and Tectonics
- GEO 4500 Earth Systems History I
- HIST 4320 History of Scientific Thought*
- MATH 2270 Linear Algebra
- MATH 3200 Foundations of Analysis
- MATH 3210 Complex Variables
- MATH 3300 Foundations of Abstract Algebra
- MATH 4000 Introduction to Probability
- MATH 4210 Advanced Calculus I
- MATH 4220 Advanced Calculus II
- MATH 4310 Introduction to Modern Algebra I
- MATH 4320 Introduction to Modern Algebra II
- MATH 4330 Theory of Linear Algebra
- MATH 4340 Introduction to Number Theory
- MATH 4500 Introduction to Topology
- MATH 4610 Introduction to Numerical Analysis I
- MATH 4620 Introduction to Numerical Analysis II
- METO 3100 Earth Systems
- PHYS 3050 Astrophysics
- PHYS 3800 Energy use on Earth
- PHYS 4420 Electrodynamics*
- PHYS 4510 Quantum Mechanics I*
- PHYS 4520 Quantum Mechanics II*
- PHYS 4700 Acoustics*
- PHYS 4800 Solid State Physics*
- PHYS 495R Independent Research
- PHYS 499A Senior Project*
- PHYS 499B Senior Thesis*
- ZOOL 2420 Human Physiology

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 UVSC, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.

Note:
*Suggested elective option for the student intent on continuing physics studies in graduate school.
**Strongly recommended for inclusion in any elective option.

BS IN CHEMISTRY AND PHYSICS EDUCATION 124 CREDITS

Matriculation Requirements:

1. Students are admitted directly to the Baccalaureate degree program in Chemistry and 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.
3. Students must select between chemistry and physics emphases upon matriculation.

General Education Requirements: 41 Credits

- ENGL 1010 Introduction to Writing 3
- ENGL 2020 Intermediate Writing: Science/Technology 3
- MATH 1210 Calculus I 5

Complete one of the following: 3

- HIST 2700 US History to 1877
- **and** HIST 2710 US History since 1877
- HIST 1700 American Civilization
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

BS IN CHEMISTRY AND PHYSICS EDUCATION (CON'T) 124 CREDITS

Complete the following:

- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness
- **or** PES 1097 Fitness for Life 2

Distribution Courses

- Biology 3
- CHEM 1210 Principles of Chemistry I 4
- CHEM 1215 Principles of Chemistry Laboratory I 1
- CHEM 1220 Principles of Chemistry II 4
- CHEM 1225 Principles of Chemistry Laboratory II 1
- Humanities Distribution 3
- Fine Arts Distribution 3
- Social/Behavioral Science 3

Discipline Core Requirements: 83 Credits

- 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 4
- CHEM 4200 Teaching Methods in Science 3
- HIST 4320 History of Scientific Thought 3
- MATH 1220 Calculus II 5
- MATH 2210 Calculus III 3
- PHYS 2210 Physics for Scientists and Engineers I 4
- PHYS 2215 Physics for Scientists and Engineers I Lab 1
- PHYS 2220 Physics for Scientists and Engineers II 4
- PHYS 2225 Physics for Scientists and Engineers II Lab 1
- PHYS 3010 Physics Experiments for Secondary Education 1
- PHYS 3740 Modern Physics 3

Education Courses

- EDSC 2540 Development of the Adolescent Student 2
- EDSC 3000 Educational Psychology 3
- EDSC 3050 Foundations of American Education 2
- EDSC 3250 Instructional Media 2
- EDSC 4200 Classroom Management I 1
- EDSC 4250 Classroom Management II 1
- EDSC 4440 Content Area Reading and Writing 3
- EDSC 4450 Multicultural Instruction/ESL 2
- EDSC 4550 Secondary Curriculum, Instruction and Assessment 4
- EDSC 4850 Student Teaching, Secondary 8
- EDSP 3400 Exceptional Students 2

Complete one of the following sets: 11

CHEMISTRY **(see Chemistry advisor)**:

- CHEM 3060 Physical Chemistry I
- CHEM 3100 Inorganic Chemistry
- PHYS 3050 Astrophysics

PHYSICS:

- PHYS 3210 Introduction to Experimental Physics I
- PHYS 490R Seminar*
- Complete 9 credits from the following:
  - PHYS 3050 Astrophysics
  - PHYS 3230 Principles of Electronics for the Physical Sciences
  - PHYS 3300 Introduction to Classical Field Theory
  - PHYS 3400 Classical Mechanics
  - PHYS 3500 Thermodynamics
  - PHYS 3800 Energy Use on Earth
  - PHYS 4700 Acoustics

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 2.0 (C) or above with a minimum of 2.25 in Major.
3. Residency hours—minimum of 30 credit hours through course attendance at UVSC, 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 UVSC. A minimum of 24 chemistry and physics credits must be upper-division.
6. Complete all chemistry and physics courses with a minimum grade of "C-" or better.

Note:
* Must be repeated two times.

MINOR IN PHYSICS 20 CREDITS

Matriculation Requirements::

1. Admitted to a bachelor degree program at UVSC.

Discipline Core Requirements: 20 Credits

- PHYS 2210 Physics for Scientists and Engineers I 4
- PHYS 2215 Physics for Scientists and Engineers I Lab 1
- PHYS 2220 Physics for Scientists and Engineers II 4
- PHYS 2225 Physics for Scientists and Engineers II Lab 1
- PHYS 3740 Modern Physics 3
- PHYS 3210 Introduction to Experimental Physics I 2

Complete a minimum of 5 credits from the following courses: 5

- PHYS 3220 Introduction to Experimental Physics II
- PHYS 3230 Principles of Electronics for the Physical Sciences
- PHYS 3300 Introduction to Classical Field Theory
- PHYS 3400 Classical Mechanics
- PHYS 3500 Thermodynamics
- PHYS 3800 Energy use on Earth
- PHYS 4210 Advanced Experimental Techniques
- PHYS 4300 Computational Physics
- PHYS 4410 Electrostatics and Magnetism
- PHYS 4420 Electrodynamics
- PHYS 4510 Quantum Mechanics I
- PHYS 4520 Quantum Mechanics II
- PHYS 4600 Optics
- PHYS 4700 Acoustics
- PHYS 4800 Solid State Physics
- PHYS 490R Seminar
- ASTR 3050 Astrophysics
- METO 3100 Earth Systems

Graduation Requirements:

1. A minimum grade of "C" must be earned in all minor courses.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

NOTE: Courses marked with double asterisks also have Honors sections available. See Honors Program section of this catalog.

ASTR 290R
Independent Study
1-5:0-5:0-15 On sufficient demand
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 (Cross-listed as PHYS 3050)
Astrophysics
3:3:0 Sp
• Prerequisite: PHYS 2220, MATH 1220
Covers the physics of stars, star clusters, and galaxies. Treats in detail the current methods of astronomical data collection and analysis. Discusses the mathematics of the Theories of Relativity and its implications for the origin and structure of the Universe.

PHSC 1000 PP
Survey of Physical Science
3:3:0 Su, F, Sp
Surveys 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
2-9:1:5-40 Su, F, Sp
• Prerequisite: 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.

PHYS 1010 PP
Elementary Physics
3:3:0 Su, F, Sp
• Prerequisite: MAT 1010
For students interested in a one-semester survey physics course and students in Allied health programs. 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.

PHYS 1040 PP
Elementary Astronomy
3:3:0 Su, F, Sp
An introduction to astronomy and cosmology. Explores interesting concepts such as the big bang and black holes. Includes obervational exercises including the use of binoculars and telescopes.

PHYS 1050
Investigations of the Solar System
3:3:0
• Prerequisite: MATH 1030 or any higher mathematics
Offers a descriptive and conceptual survey of the solar system. Describes the probable origin and evolution of the sun and planets, and the workings of the sun. Covers light, optics and spectroscopy, and the mechanics of orbital motion. Compares planets by their origins, structures and atmospheres. While the presentation is primarily qualitative, assumes rudimentary math skills on the part of the student to facilitate comparative studies of solar system objects.

PHYS 1060
Investigations of Stars and Galaxies
3:3:0
• Prerequisite: MATH 1030 or any higher mathematics
Describes the origins and evolutions of stars, and collections of stars, galaxies and clusters of galaxies. Includes introduction to cosmology. Teaches the law of gravity and those laws of physics connected with optics and spectroscopy. Emphasizes conceptual learning, and assumes rudimentary mathematical skills on the part of students to facilitate comparative studies.

PHYS 1070** PP
Cultural Astronomy in Our Lives
3:3:0 F, Sp
For those interested in learning about the astronomical realm around us and those having a special interest in anthropology. 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 UVSC planetarium, nighttime observation, illustrated lectures, and class demonstrations.

PHYS 1700
Descriptive Acoustics
3:3:0
• Prerequisite: MAT 1010
Introduces the science of sound, music and speech and the physical principles and technology used to manipulate, store and broadcast it.

PHYS 1810 GP
Principles of Technology I
2:1:3 Sp
• Prerequisite: MAT 0990
A course in applied physics for those who plan to pursue careers as technicians or who want to keep pace with the advances in technology. Blends an understanding of basic principles with practice in practical applications. This course is made up of six units, each of which focuses on one of the important physics concepts such as force, work, rate, resistance, energy, and power. Each unit explains how that concept applies to mechanical, fluid, electrical, and thermal systems.

PHYS 1820 GP
Principles of Technology II
2:1:3 Sp
• Prerequisite: PHYS 1810, MAT 0990
A course in applied physics for those who plan to pursue careers as technicians or who want to keep pace with advances in technology. Blends an understanding of basic principles with practice in practical applications. This course is made up of seven units, each of which focuses on one of the important physics concepts of momentum, waves and vibrations, energy converters, transducers, radiation, light and optical systems, and time constants. Each unit explains how that concept applies to mechanical, fluid, electrical, and thermal systems.

PHYS 2010 PP
College Physics I
4:4:0 Su, F, Sp
• Prerequisite: MAT 1010
• Corequisite: PHYS 2015
For students desiring a two semester algebra based course in applied physics. Covers mechanics, fluids, heat, and thermodynamics.

PHYS 2015
College Physics I Lab
1:0:2 Su, F, Sp
Designed to accompany PHYS 2010. Provides firsthand experience with the laws of mechanics, fluids, heat, thermodynamics, and data analysis.

PHYS 2020 PP
College Physics II
4:4:0 Su, F, Sp
• Prerequisite: PHYS 2010
• Corequisite: PHYS 2025
A continuation of PHYS 2010. Covers electricity, magnetism, waves, sound, optics, and nuclear physics.

PHYS 2025
College Physics II Lab
1:0:2 Su, F, Sp
Designed to accompany PHYS 2020. Provides firsthand experience with the laws of electricity, waves, optics, nuclear physics, and data analysis.

PHYS 2210 PP
Physics for Scientists and Engineers I
4:4:1 Su, F, Sp
• Prerequisite: MATH 1210
• Corequisite: PHYS 2215
A calculus-based treatment of introductory physics for scientists and engineers. Topics include mechanics, fluid physics, thermodynamics, vibrations, and waves. Includes 1 hour of recitation per week.

PHYS 2215
Physics for Scientists and Engineers I Lab
1:0:2 Su, F, Sp
Designed to accompany PHYS 2210. Provides firsthand experience with the laws of mechanics, thermal physics, vibrations, and waves. Introduces methods of scientific data analysis.

PHYS 2220 PP
Physics for Scientists and Engineers II
4:4:1 Su, F, Sp
• Prerequisite: PHYS 2210, MATH 1220
• Corequisite: PHYS 2225
A continuation of PHYS 2210. Covers electricity and magnetism, inclusive of Maxwell's equations. Develops 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
1:0:2 Su, F, Sp
Designed to accompany PHYS 2220. Verifies through laboratory experience the laws of electricity and magnetism, electric circuits, and

optics. Principles of data collection and analysis are emphasized.

PHYS 295R
Introduction to Independent Research
1-3:0:3-9
• Prerequisite: 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
1:0:3 Not 05-06
• Prerequisite: PHYS 2210, MATH 1050, MATH 1210, PHYS 2220, MATH 1060
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
3:3:0 Not 05-06
• Prerequisite: PHYS 2220, MATH 1220
Addresses topics of special relativity, development of quantum mechanics, physics of the atom, elementary solid state physics, and elementary particle physics.

PHYS 3050 (Cross-listed as ASTR 3050)
Astrophysics
3:3:0 Sp
• Prerequisite: PHYS 2220, MATH 1220
Covers the physics of stars, star clusters, and galaxies. Treats in detail the current methods of astronomical data collection and analysis. Discusses the mathematics of the Theories of Relativity and its implications for the origin and structure of the Universe.

PHYS 3210
Introduction to Experimental Physics I
2:1:3 F
• Prerequisite: PHYS 2210 or instructor's consent
Introduces selected experiments of classical and modern physics in a laboratory setting. Addresses topics of measurement, data analysis, report writing with an emphasis on modern instrumentation and computer assisted acquisition and analysis of data.

PHYS 3220
Introduction to Experimental Physics II
2:1:3 Sp
• Prerequisite: PHYS 3210
Introduces selected experiments of classical and modern physics in a laboratory setting. Addresses topics of measurement, data analysis, report writing with an emphasis on modern instrumentation and computer assisted acquisition and analysis of data.

PHYS 3230
Principles of Electronics for the Physical Sciences
3:2:3 F
• Prerequisite: PHYS 2220, MATH 2210
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
Introduction to Classical Field Theory
3:3:0 Sp
• Prerequisite: MATH 2210, MATH 2270
• Corequisite: MATH 2280 or instructor consent
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, complex variables, Fourier series and transforms, differential and integral equations.

PHYS 3400
Classical Mechanics
3:3:0 Sp
• Prerequisite: PHYS 2220, MATH 2280
• Corequisite: 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
3:3:0 Sp
• Prerequisite: PHYS 2220, MATH 2210
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 3740
Modern Physics
3:3:0 F
• Prerequisite: PHYS 2220
• Corequisite: MATH 2280
Addresses topics of special relativity, development of quantum mechanics, physics of the atom, elementary solid state physics, and elementary particle physics.

PHYS 3800 (Cross-listed as ENVT 3800, CHEM 3800)
Energy use on Earth
3:3:0
• Prerequisite: (PHYS 1010 or PHSC 1000 or CHEM 1010 or GEO 1010 or GEO 2040 or METO 1010) and MATH 1050
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. 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 4100
Biophysics
3:3:1
• Prerequisite: PHYS 3740, BIOL 1610, or instructor approval
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 4210
Advanced Experimental Techniques
3:1:4 F
• Prerequisite: PHYS 3220, PHYS 3230, or instructor's consent
Introduces fundamental skills required for conducting successful scientific research in a physics laboratory setting. Covers vacuum technology, basic machine shop practice, electronic instrumentation, electron microscopy, scanning probe microscopy, nuclear magnetic resonance, and x-ray diffractometry.

PHYS 425R
Physics for Teachers
1-5:1-5:0-10
• Prerequisite: Department Approval
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 4300
Computational Physics
3:3:0 F
• Prerequisite: PHYS 3300
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.

PHYS 4410
Electrostatics and Magnetism
3:3:0 F
• Prerequisite: PHYS 3740, PHYS 3300
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
3:3:0 Sp
• Prerequisite: PHYS 4410
Explores the theory of electrodynamic 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
3:3:0 F
• Prerequisite: PHYS 3740, PHYS 3300
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
3:3:0 Sp
• Prerequisite: PHYS 3300, PHYS 4510
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 4600
Optics
3:3:0 Sp
• Prerequisite: PHYS 3740, PHYS 4410
Covers the phenomena of reflection, refraction, diffraction, interference, optical behavior in materials and lasers. Presents a mathematically rigorous description of optical phenomena. Includes lab experience.

PHYS 4700
Acoustics
3:3:0 F
• Prerequisite: PHYS 2220, MATH 2210
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
3:3:0 Sp
• Prerequisite: PHYS 3740, PHYS 4510
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 490R
Seminar
0.5:0.5:0 F, Sp
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 results presented at a level appropriate for junior and senior physics majors.

PHYS 495R
Independent Research
1-3:0:3-9 Su, F, Sp
• Prerequisite: PHYS 2220, 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 used as part of a senior thesis. May be repeated for no more than nine hours of elective credit.

PHYS 499A
Senior Project
2:0:6 Su, F, Sp
• Prerequisite: Instructor and Departmental approval
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
1:0:3 Su, F, Sp
• Prerequisite: Instructor and Departmental approval
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.

POLITICAL SCIENCE

Department of History and Political Science

Department Chair: Keith Snedegar
Department Office: LA 030
Telephone: 801-863-8487
Fax: 801-863-7013

Political Science Coordinator: Alexander T. Stecker

Administrative Assistant: Laura Jones

Faculty:
Professor
F. Dennis Farnsworth, Jr.
Associate Professor
Lyndon W. Cook
Masoud Kazemzadeh
Assistant Professor
Jay A. DeSart
Rick A. Griffin

School of Humanities, Arts, and Social Sciences

Dean: William W. Cobb, Jr.
Office: LA 209d
Telephone: 801-863-7435

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 leaders, both public and private. 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.

Political science students develop a versatility of skills that prepare them for a wide range of future career paths. The career possibilities for a political science student include: government service and public administration at the federal, state, and local levels; policy analysis and lobbying for both non-profit organizations and corporations; foreign service; campaign consulting; public opinion and marketing research; journalism; and secondary and post-secondary education. Political science is also the leading course of study for students preparing to enter law school.

Several courses fill general education requirements in the social science distribution area. Upper division courses apply toward the Integrated Studies Social Sciences emphasis and may service as electives in other programs. (See specific program requirements.)

PROGRAMS

AA/AS PRE MAJOR IN HISTORY AND POLITICAL SCIENCE — 62 CREDITS

General Education Requirements	35 Credits
• Complete General Education requirements as detailed in the General Education section of this catalog.	
Discipline Core Requirements:	16 Credits
• Complete 16 Credits from any ARCH, ECON, GEOG, HIST, or POLS courses.	
Elective Requirements:	11 Credits
• For AS degree: Any courses numbered 1000 or higher	11
or For AA degree: One Foreign Language	10
and Any course numbered 1000 or higher	1
Graduation Requirements:	

1. Completion of a minimum of 62 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 UVSC
4. Completion of GE and specified departmental requirements
5. For the AA degree, completion of 10 credit hours of course work from one language.

BA/BS IN INTEGRATED STUDIES — 123 CREDITS

The following Integrated Studies emphases are available (see the Integrated Studies section of this catalog for complete degree requirement listings):

- Social Sciences

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

ECON 1010 SS
Economics as a Social Science
3:3:0 Su, F, Sp
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.

ECON 1740 AS
US Economic History
3:3:0 F, Sp
Studies economic development in America, with emphasis on resources, commerce, agriculture, capital, manufacturing, government, and labor organizations.

POLS 1000 AS
American Heritage
3:3:0 Su, F, Sp
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 SS
Introduction to Political Science
3:3:0 F, Sp
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
3:3:0 F
Surveys the major historical and current political ideologies including liberalism, Marxism, fascism and Islamism.

POLS 1100 AS
American National Government
3:3:0 Su, F, Sp
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
3:3:0 F
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 1800 GS
Our Global Community
3:3:0 Sp
Examines geography, climate and topography of Western Europe, Asia, Latin America, Pacific Rim, sub-Saharan Africa and Middle/East Islamic regions. Studies the unique social, cultural, economic and political differences and resulting tensions and conflicts. Explores how historical experience affect the expectations and perceptions of selected populations.

POLS 2100 SS
Introduction to International Relations
3:3:0 F, Sp
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 2120
Political Parties
3:3:0 F
• Prerequisite: POLS 1100 or consent of instructor
Examines the American political party system with special attention given to the history, campaign strategies, and ideologies of American political parties.

POLS 2200 SS
Introduction to Comparative Politics
3:3:0 F, Sp
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 2350
Introduction to Political Theory
3:3:0 Sp
Surveys the history of Western political theory from the Greeks to the 21st Century.

POLS 3000
Political Analysis
3:3:0 On Sufficient Demand
• Prerequisite: MATH 1040 and POLS 1100
Covers the analytical and quantitative methodologies used in political science and public policy research. Includes statistical analysis, database research, and writing exercises.

POLS 3030
State and Local Government
3:3:0 F
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 3100
Survey of International Terrorism
3:3:0 Sp
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 3150
Executive Branch
3:3:0 F
• Prerequisite: POLS 1100
Studies the executive branch of American national government. Examines the basic functions, tenants, and institutions of the executive branch. Special attention given to the powers, roles, and structure of the presidency. Also analyzes the various complexities of executive politics and policies.

POLS 3200
Legislative Process
3:3:0 F
• Prerequisite: POLS 1100
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 3250 (Cross-listed as LEGL 3250)
Introduction to Law and Politics
3:3:0 F
• Prerequisite: POLS 1010 or Instructor Approval
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 3400
American Foreign Policy
3:3:0 Sp
• Prerequisite: POLS 1100
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 3500
International Relations of the Middle East
3:3:0 On Sufficient Demand
• Prerequisite: POLS 2100 or consent of instructor
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 3590
American Indian Law and Tribal Government
3:3:0 On Sufficient Demand
• Prerequisite: (ENGL 2010 or 2020) or permission of instructor
Surveys American Indian law in treaties, statutes, case law, regulations, and executive orders, and 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, hunting and fishing rights, and cultural preservation. Examines the traditional and modern forms of various Indian tribal governments.

POLS 3600
International Relations of East Asia
3:3:0 F
Studies the emergence, from the nineteenth century, of modern nations from the rich and varied cultures and societies of Pacific Asia. Focuses on China, Japan and Korea. Explores the historical and geographical context of the development of East and Southeast Asia. Examines the transformation between East and West as well as the persistence of tradition. Discusses the political, economic and cultural changes in a region whose economic output rivals that of any other area of the world.

POLS 480R
Internship
2-9:1:5-40 On Sufficient Demand
• Prerequisite: POLS 1100
Provides opportunities for internship experience in political organizations, government offices, and non-governmental organizations. May be repeated for a maximum of 9 credits toward graduation.

PRE-ENGINEERING SCIENCE

Department Chair: Keith Olson
Office: CS 520j
Telephone: 801-863-6392

Faculty:
Professor
Dennis Fairclough
Associate Professor
Masood Amin
Afsaneh Minaie
Assistant Professor
Abraham Teng

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School of Computing, Engineering and Technology
Dean: Thomas McFarland
Office: CS 720b
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Engineering is an exciting major in terms of professional career opportunities, job satisfaction and compensation. Career options exist in many engineering fields including: Aerospace, Biological, Biomedical, Chemical, Civil, Computer, Electrical, Environmental, Irrigation, Manufacturing, Materials, Mechanical and Systems. The pre-engineering program at UVSC has been created for students who plan to complete the first two to three years of their engineering education at UVSC and then transfer to a baccalaureate university to complete their engineering degree. With adequate planning, pre-engineering coursework completed at UVSC 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 UVSC, the student applies for professional status at an institution of the student's choice.

Students can choose from two degree plans. The Associate of Pre-Engineering degree is comprised of those math, science, and engineering courses normally taken by first and second year students in a four year program, along with a small number of general education courses. If a student adds appropriate general education courses, an Associate of Science Degree with a pre-engineering pre-major may be obtained. This option normally takes longer, unless the student has advanced placement or concurrent enrollment from high school; however, it has the added benefit of possible waiving of general education requirements at the student's follow-on school.

Pre-engineering programs will vary markedly from student to student depending on several factors including: high school preparation, engineering discipline of interest, and the intended four-year transfer school. The pre-engineering advisor will consider these factors when designing a program to fit the needs of each individual student. It is therefore important that pre-engineering students consult with the pre-engineering advisor concerning classes appropriate for their educational experience at UVSC. Call 801-863-3647 for a personal appointment.

The normal entry level mathematics class for pre-engineering students is Calculus I (MATH 1210). Prerequisites for Calculus I are College Algebra (MATH 1050) and Trigonometry (MATH 1060) or three years of high school mathematics including geometry, two years of algebra, and trigonometry. Remedial course work is available for students with inadequate high school preparation and achievement. Inadequately prepared students should see a pre-engineering advisor for recommended remedial courses which must be completed in addition to the normal pre-engineering requirements.

AS PRE MAJOR IN PRE-ENGINEERING SCIENCE — 62 CREDITS

General Education Requirements:			**39 Credits**
• ENGL	1010	Introduction to Writing	3
• ENGL	2020	Intermediate Writing—Science/Technology	3
• MATH	1210	Calculus I	5
Complete one of the following:			3
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• HIST	1700	American Civilization	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Complete the following:			
• PHIL	2050	Ethics and Values	3
• HLTH	1100	Personal Health and Wellness	
or PES	1097	Fitness for Life	2
Distribution Courses			
• BIOL	1010	General Biology*	3
• CHEM	1210	Principles of Chemistry I	4
• PHYS	2210	Physics for Scientists and Engineers I	4
• Humanities Distribution			3
• Fine Arts Distribution			3
• Social/Behavioral Science			3
Pre-Engineering Core Requirements:			**23 Credits**
• MATH	1220	Calculus II	5
• PHYS	2220	Physics for Scientists and Engineers II	4
• CNS	1250	Object-Oriented Programming I	3
Complete ONE of the following sets of courses			11
Mechanical/Civil Courses			
• ENGR	2000	Engineering Statics	3
• ENGR	2020	Engineering Dynamics	3
• ENGR	2040	Strength of Materials	3
• Complete two credits of Pre-Engineering Electives			
Electrical/Computer Courses			
• EENG	2750	Circuit Theory	4
• EENG	2740	Digital Design I	4
• Complete three credits of Pre-Engineering Electives			
Chemical/Biological Courses			
• CHEM	2310	Organic Chemistry I	4
• ENGR	2000	Engineering Statics	3
• Complete four credits of Pre-Engineering Electives			

AS PRE MAJOR IN PRE-ENGINEERING SCIENCE (CON'T) — 62 CREDITS

Pre-Engineering Electives:			
Students should carefully select electives based on the engineering discipline they are interested in and the college or university they want to attend to finish their BS degree. See your advisor.			
Introduction to Engineering Disciplines			
• ENGR	1000	Introduction to Engineering	3
• ENGR	2210	Computational Methods for Engineering Analysis	3
• ENGR	295R	Special Topics	1
Math and Science Electives (required by most engineering programs):			
• MATH	2210	Calculus III	3
• MATH	2270	Linear Algebra	3
• 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	1215	Principles of Chemistry I Laboratory	1
Biological and Chemical Engineering Electives:			
• BIOL	1610	College Biology I	4
• BIOL	1615	College Biology I Laboratory	1
• BIOL	1620	College Biology II	3
• BIOL	1625	College Biology II Laboratory	1
• MICR	2060	Microbiology for Health Professionals	4
• CHEM	1220	Principles of Chemistry II	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
Civil and Mechanical Engineering Electives:			
• ENGR	2200	Fundamentals of Electric Circuit Analysis	4
• ENGR	2400	Engineering Thermodynamics	3
• DT	1040	Computer Aided Drafting—AutoCAD	3
• DT	1400	Surveying	4
Computer and Electrical Engineering Electives:			
• CNS	1350	Object-Oriented Programming II	3
• CNS	1380	Assembly Language and Computer Architecture	3
• CNS	2300	Discrete Structures I	3
• CNS	2400	Object-Oriented Data Structures	3

Graduation Requirements:
1 Completion of a minimum of 62 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 UVSC.
4 Completion of GE and specified departmental requirements.

*CHEM/BIOL engineering students should consider BIOL 1610 in lieu of BIOL 1010.

APE ASSOCIATE IN PRE-ENGINEERING — 68 CREDITS

General Education Requirements:			**28 Credits**
• ENGL	1010	Introduction to Writing	3
• ENGL	2020	Intermediate Writing—Science/Technology	3
Complete the following three Natural and Physical Science courses			
• BIOL	1010	General Biology	3
• CHEM	1210	Principles of Chemistry I	4
• CHEM	1215	Principles of Chemistry I Laboratory	1
• PHYS	2210	Physics for Scientists and Engineers I	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 American Institutions, Humanities, Fine Arts, and Social/Behavioral Science			9
• Humanities (from list)			
• Fine Arts (from list)			
• Social/Behavioral Sciences (from list)			
American Institutions			
• HIST	2700	US History to 1877	
and HIST	2710	US History since 1877	
• HIST	1700	American Civilization	
• ECON	1740	US Economic History	
• POLS	1000	American Heritage	
• POLS	1100	American National Government	
Pre-Engineering Core:			**18 Credits**
• MATH	1210	Calculus I	5
• MATH	1220	Calculus II	5

APE ASSOCIATE IN PRE-ENGINEERING (CON'T) 68 CREDITS

• CNS	1250	Object-Oriented Programming I	3
• PHYS	2220	Physics for Scientists and Engineers II	4
• PHYS	2225	Physics for Scientists and Engineers II Lab	1

Specialty Core: 22-23 Credits

Complete one of the following emphases (see detail below):

•	Civil and Mechanical Engineering Emphasis	22
or	Biological and Chemical Engineering Emphasis	23
or	Computer and Electrical Engineering Emphasis	23

Graduation Requirements:

1 Completion of a minimum of 68 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 UVSC.
4 Completion of GE and specified departmental requirements.

Civil and Mechanical Engineering Emphasis

Civil and Mechanical Engineering Core: 9 Credits

• ENGR	2000	Engineering Statics	3
• ENGR	2020	Engineering Dynamics	3
• ENGR	2040	Strength of Materials	3

Civil and Mechanical Engineering Electives: 13 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.

• DT	1040	Computer Aided Drafting - AutoCAD	3
• DT	1400	Surveying	4
• ENGR	1000	Introduction to Engineering	3
• ENGR	2200	Fundamentals of Electric Circuit Analysis	4
• ENGR	2210	Computational Methods for Engianeering Analysis	3
• ENGR	2400	Engineering Thermodynamics	3
• ENGR	295R	Special Topics	3
• MATH	2210	Calculus III	3
• MATH	2270	Linear Algebra	3
MATH	2280	Ordinary Differential Equations	3

Biological and Chemical Engineering Emphasis

Biological and Chemical Engineering Core Requirements: 8 Credits

• CHEM	1220	Principles of Chemistry II	4
• CHEM	1225	Principles of Chemistry II Laboratory	1
• ENGR	2000	Engineering Statics	3

Biological and Chemical Engineering Electives: 15 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.

• BIOL	1610	College Biology I	4
• BIOL	1615	College Biology I Laboratory	1
• BIOL	1620	College Biology II	3
• BIOL	1625	College Biology II Laboratory	1
• MICR	2060	Microbiology for Health Professionals	4
• CHEM	1220	Principles of Chemistry II	4
• 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
• ENGR	1000	Introduction to Engineering	3
• ENGR	2210	Computational Methods for Engineering Analysis	3
• ENGR	295R	Special Topics	3
• MATH	2210	Calculus III	3
• MATH	2270	Linear Algebra	3
• MATH	2280	Ordinary Differential Equations	3

Computer and Electrical Engineering Emphasis

Computer and Electrical Engineering Core: 8 Credits

• EENG	2750	Circuit Theory	4
• EENG	2740	Digital Design I	4

Computer and Electrical Engineering Electives: 15 credits

Students should carefully select electives from the following list, 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.

APE ASSOCIATE IN PRE-ENGINEERING (CON'T) 68 CREDITS

• CNS	1350	Object Oriented Programming II	3
• CNS	1380	Assembly Language and Computer Science	3
• CNS	2300	Discrete Structures I	3
• CNS	2400	Object-Oriented Data Structures	3
• EENG	3740	Digital Design II	3
• ENGR	1000	Introduction to Engineering	3
• ENGR	2210	Computational Methods for Engineering Analysis	3
• ENGR	295R	Special Topics	3
• MATH	2210	Calculus III	3
• MATH	2270	Linear Algebra	3
• MATH	2280	Ordinary Differential Equations	3

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

EENG 2740
Digital Design I
4:3:2 F, Sp
• Prerequisite: CNS 1380 (Recommended)
Studies the design and application of combinational and sequential logic circuits with discrete and programmable logic devices. Includes the use of CAD tools for system design and verification. Integrates a laboratory.

EENG 2750
Circuit Theory
4:3:2 F, Sp
• Prerequisite: MATH 1210, PHYS 2210
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. Integrates a laboratory.

EENG 3720
Interfacing to Microprocessors
3:3:0
• Prerequisite: MATH 1210, EENG 3710
Develops the theory and technology necessary for the interconnection of devices and systems to microprocessors through hardware and software interface examples and student projects. Covers implementations of buses, interrupts, controllers, and device drivers.

EENG 3740
Digital Design II
3:3:0 F, Sp
• Prerequisite: EENG 2740
Covers the design and verification of digital systems. Emphasizes hierarchal design principles and the use of programmable logic devices (PLDs). Utilizes modern CAD tools and design languages (VERILOG).

EENG 3750
Signals and Systems I
3:3:0 F
• Prerequisite: EENG 2750, MATH 1220
Studies the time and transfer 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.

EENG 3770
Signals and Systems II
3:3:0 Sp
• Prerequisite: EENG 3750
Studies the time and transfer domain analysis of discrete time systems subjected to periodic and non-periodic input signals. Introduces signal and transform theory and the application of Fourier and Z transforms.

EENG 4730
Embedded Systems
3:3:0 F
• Prerequisite: EENG 2740
Presents the design of hardware and software required for embedded, real-time systems. Covers types of real-time systems and the hardware and software required for preemptive and non-preemptive multi-tasking, tasking scheduling algorithms, task synchronization and design of a kernel for real-time systems.

EENG 4740
Queuing Theory
3:3:0
• Prerequisite: MATH 2040, EENG 3750
Includes computer systems network modeling using stochastic processes: queuing theory models, performance analysis, resource allocations, large-system response parameters.

EENG 4750
Digital Signal Processing
3:3:0 F
• Prerequisite: EENG 3770
Introduces the theory of digital signal processing and its application to practical problems. Covers z-transforms, discrete-time Fourier transforms, FIR (Finite Impulse Response) and IIR (Infinite Impulse Response) digital filter design.

EENG 4760
Electronic Systems
4:3:2 Sp
• Prerequisite: EENG 2750
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. Introduces the design of electronic components and systems for instrumentation, communication, control and power applications. Integrates a laboratory.

ENGR 1000
Introduction to Engineering
3:3:0 F, Sp
• Prerequisite: MAT 1000 or MAT 1010
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. Emphasizes problem solving skills and the processes and procedures of engineering design. Includes lectures, projects, guest speakers, field trips, and in-class exercises.

ENGR 2000
Engineering Statics
3:3:0 F, Sp
• Prerequisite: 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.

ENGR 2020
Engineering Dynamics
3:3:0 F, Sp
• Prerequisite: ENGR 2000 and MATH 1220
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.

ENGR 2040
Strength of Materials
3:3:0 F, Sp
• Prerequisite: ENGR 2000
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.

ENGR 2200
Fundamentals of Electric Circuit Analysis
4:3:2 On Sufficient Demand
• Prerequisite: MATH 1220, PHYS 2220
Studies fundamental electric circuit analysis techniques. Develops analysis techniques using Kirchoff's laws, Thevenin and Norton equivalents, superposition, and phasors. Covers transient and steady-state time-domain analysis, and frequency analysis.

ENGR 2210
Computational Methods for Engineering Analysis
3:2:2 F
• Prerequisite: MATH 1210, CNS 1250
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.

ENGR 2400
Engineering Thermodynamics
3:3:0 Sp
• Prerequisite: ENGR 2020
Studies the first and second laws of thermodynamics and their application in engineering problem solving. Covers analysis of open and closed systems, equations of state, steady state, power and refrigeration cycles, gas mixtures, chemical reactions and an introduction to heat transfer.

ENGR 295R
Special Topics
1-3:1-3:0 On Sufficient Demand
• Prerequisite: 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.

ROTC
AIR FORCE AND ARMY

Contact: Army ROTC

Captain Alexa O'Leary
Master Sergeant Jeff Davis
Sergeant First Class Kevin Boughton
Office: WB 137, UVSC Orem Campus
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Contact: Air Force ROTC

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School of Business

Dean: James W. Fenton, Jr.
Office: WB 128
Telephone: 801-863-8260

Associate Dean: Janice Gygi
Office: WB 219
Telephone: 801-863-8863

Assistant Dean: Mikki O'Connor
Office: WB 129
Telephone: 801-863-8850

CROSS-ENROLLMENT AGREEMENT

The College offers ROTC through a cross-enrollment agreement with Brigham Young University (BYU). The Military Science courses are taught at UVSC and the Aerospace Studies courses are taught at BYU.

Compliance with BYU standards, as listed in the current BYU catalog, is an obligation while participating in ROTC activities and at all times on the BYU campus.

General information on Aerospace Studies (Air Force ROTC) and Military Science (Army ROTC) is given below. More detailed information is available in the appropriate BYU catalog listing.

GENERAL INFORMATION

The ROTC program is designed to produce highly qualified commissioned officers for the U.S. Air Force, U.S. Army, Army Reserve, and Army National Guard.

The traditional ROTC program extends over four years of college and consists of two phases: a two-year basic course during the freshman and sophomore years, and a two-year advanced course covering the junior and senior years of college.

To receive a commission as a second lieutenant in the U.S. Air Force, U.S. Army, Army Reserve or Army National Guard, students must earn a baccalaureate degree prior to age 30. An exception will be made for prior service, which may extend the age limit to 34. If designated for Air Force pilot or navigator training, all commissioning requirements must be met prior to age 29. Students must be citizens of the United States to be commissioned.

Physical and academic standards for the basic course are the same as for those of the university. To qualify for the advanced program, students must pass a mental and physical examination during the year preceding entry into the advanced course. At the beginning of the fall semester of their junior year students are sworn into the Air Force or Army Reserves and sign an agreement to complete the last two years of ROTC and to serve on reserve or active duty upon graduation. Students incur no military obligation prior to joining the reserves.

PROGRAM OF INSTRUCTION

The ROTC program is designed to complement the civilian goal of acquiring a baccalaureate degree in a personal course of study while enabling students to develop the knowledge, skills, and attitudes for transition into the United States Armed Forces upon commissioning and to fulfill a military obligation as a reserve or active duty officer. Students do not major in Aerospace Studies or Military Science but may receive a minor in these areas upon their request and depending upon the requirements of the college or university from which the students received their baccalaureate degree. ROTC military and leadership training provides ROTC graduates with many special skills and experiences which will enable them to compete as leaders in the military and/or business, civic, and community affairs.

SCHOLARSHIPS

ROTC offers many two- and three-year scholarships for which students may compete, awarded on merit. The scholarships pay full tuition, textbook costs, lab, and other required college fees, related education expenses such as classroom materials, and a $350-400 per month subsistence allowance. These scholarships are among the finest scholarships offered and can be used at hundreds of other universities and colleges across the United States for students to complete their baccalaureate training at a four-year school. ROTC scholarships are offered on a competitive basis and applications must be submitted through either the Air Force or Army ROTC Detachments. In most cases, deadline for scholarship applications is January of the year prior to enrollment; however, it is suggested that interested parties check with specific ROTC departments since in certain instances deadlines may vary. ROTC scholarships are not affected by other grants, loans, or VEAP. To be eligible for a scholarship, a student must be eligible to receive a baccalaureate degree by his or her 30th birthday, be a U.S. Citizen, be at least age 17 1/2 at the time the scholarship is to be used, and be willing to serve on active duty for a period of four years if a scholarship is utilized by a student. There are also Reserve Component Scholarships awarded each year for National Guard and Reserve duty.

AEROSPACE STUDIES (AIR FORCE)

All students in the Air Force ROTC program must attend a four- or six-week field training camp at an Air Force base, usually in the summer between sophomore and junior years.

All Air Force ROTC students are required to attend a leadership laboratory for two hours each week. Practical experience in leadership and command techniques are emphasized during all laboratory periods.

MILITARY SCIENCE (ARMY)

A five-week Advanced Leadership Course is required in the summer between the junior and senior years.

All Army ROTC students are required to attend a leadership laboratory for two and one half hours each week. Practical experience in leadership applications such as small unit tactics, rappelling, weapons familiarization, etc., are emphasized during laboratory periods.

BA/BS IN INTEGRATED STUDIES — 123 CREDITS

The following Integrated Studies emphases are available (see the Integrated Studies section of this catalog for complete degree requirement listings):

- Military Science

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements. Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

AERO 1000
Leadership Laboratory 1A
0.5:0:2 F
Studies basic fundamentals of military leadership: drill, courtesy, planning, and organizing at various levels of responsibility.

AERO 1010
Leadership Laboratory 1B
0.5:0:2 Sp
Studies basic fundamentals of military leadership: drill, courtesy, planning, and organizing at various levels of responsibility.

AERO 1100
The Air Force Today
1:1:0 F
• Corequisite: AERO 1000
Teaches development, organization, and doctrine of the U.S. Air Force. Emphasizes Strategic Force requirements.

AERO 1110
Aerospace Defense General Purpose and Support Forces
1:1:0 Sp
• Corequisite: AERO 1010
Studies U.S. Air Force Defensive Forces, General Purpose Forces, and Tactical Air Forces.

AERO 143R
Air Force Physical Training
0.5:0:2 F, Sp
• Corequisite: 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
0.5:0:2 F
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
0.5:0:2 Sp
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
1:1:0 F
• Corequisite: AERO 2000
Studies development of various concepts of air power employment, emphasizing factors that have prompted research and technological change.

AERO 2110
The Development and Growth of Air Power-B
1:1:0 Sp
• Corequisite: 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
0.5:0:2 F
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
0.5:0:2 Sp
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 305R
Leadership Laboratory Honor Guard
1:0:3 F, Sp
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 eight credits.

AERO 3100
Management and Leadership-A
3:3:0 F
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
3:3:0 Sp
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
2:2:0 F
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
4:0:8 Su
• Prerequisite: Instructor Approval for Air Force ROTC Cadets only
Provides advanced fundamentals of military leadership, planning, organizing, and team building at various levels of responsibility.

AERO 400R
Leadership Laboratory 4A
0.5:0:2 F
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 two credits.

AERO 401R
Leadership Laboratory 4B
0.5:0:2 Sp
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 two credits.

AERO 4100
National Security Affairs-A
3:3:0 F
Studies the military profession, civil-military interaction, and the forming of defense strategy.

AERO 4110
National Security Affairs-B
3:3:0 Sp
Studies the military profession, civil-military interaction, and the forming of defense strategy.

MILS 1200
Introduction to Leadership Excellence I
2:2:0 F
• Corequisite: MILS 145R
Presents historical overview and development of military value systems and philosophies. Studies individual leadership styles, 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
2:2:0 Sp
• Prerequisite: MILS 1200 or Department Approval
• Corequisite: MILS 145R
Compares and analyzes 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
1:0:3 F, Sp
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.

MILS 145R
Introduction to Leadership Dynamics and Techniques
1:0:3 F, Sp
• Prerequisite: Department Approval
Leadership lab for UVSC 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 UVSC Military Science 1000- and 2000-level classes. Students not enrolled in Army ROTC may take this class up to six credits with department approval.

MILS 2200
Advanced Organizational Leadership I
2:2:0 F
• Prerequisite: MILS 1210 or Dept. Approval
• Corequisite: 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
2:2:0 Sp
• Prerequisite: MILS 2200 or Dept. Approval
• Corequisite: 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 in any career field they choose.

MILS 245R
Leadership Studies
1:0:3 F, Sp
• Prerequisite: 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 3200
Small Unit Leadership I
3:3:0 F
• Prerequisite: MILS 2210
• Corequisite: 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
3:3:0 Sp
• Prerequisite: MILS 3200
• Corequisite: 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
1:0:3 F, Sp
• Prerequisite: Departmental Approval
Leadership lab for UVSC 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 UVSC 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
3:3:0 F
• Prerequisite: Departmental Approval
• Corequisite: 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
3:3:0 Sp
• Prerequisite: MILS 4200 or Departmental Approval
• Corequisite: 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
1:0:3 F, Sp
• Prerequisite: Departmental Approval
Leadership Lab for UVSC 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 UVSC Military Science 4000-level classes. ROTC students may take this course up to 4 credits with departmental approval.

TECHNOLOGY MANAGEMENT

Department Chair: David Johnson

Office: CS 601a
Telephone: 801-863-6152

Faculty:
Associate Professor
Floyd Olson

Advisor: Amy Ostler
Office: GT 616a
Telephone: 801-863-8138

Advisory Committee: Justin Alvey, Pratt Billing Systems; Brett Beal, Micron; Merritt Bessey; James Bliss, Modern Technology Corporation; Brent Butterfield, Dairy Farmers of America; Russell Turpin, Qualsafe Consulting; Ben Sivert, A&L Contractors; Scott Bills, Hensel Phelps; Spencer Jones, Color Country Housing.

School of Computing, Engineering and Technology

Dean: Tom McFarland
Office: CS 720b
Telephone: 801-863-8995

CAREER OPPORTUNITIES

Multiple opportunities exist for students completing the Technology Management degree in corporate and operations management; as business owners, project managers, site superintendents, supervisors, and chief project officers; as well as with state agencies and the U.S. military.

Opportunities have become especially lucrative in nationally known companies. Based on a survey conducted in 2005, salaries range from $25,000 to $110,000. Companies seeking globally competitive, world-class managers, who have experience and knowledge of both the analytic and applied aspects of professional management are especially interested in our graduates.

PROGRAMS

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

Matriculation Requirements:
1. Completion of 35 semester credits in UVSC Technical Specialty courses with a cumulative GPA:2.5 minimum.
2. Completion of an Associate in Science or any Associate in Applied Science degree from a regionally accredited institution of higher education with a designated technical specialty area of 45 credits or more. Deficiencies in the technical specialty must be taken at UVSC under advisement of the Technology Management Advisor. Minimum grade of "C" in all courses.

General Education Requirements: 35 Credits

BS IN TECHNOLOGY MANAGEMENT (CON'T) 124 CREDITS

- ENGL 1010 Introduction to Writing 3
- ENGL 2010 Intermediate Writing—Humanities/Social Science 3
- or ENGL 2020 Intermediate Writing—Science and Technology

Complete one of the following: 3
- MATH 1030 Quantitative Reasoning (recommended for Humanities or Arts majors)
- MATH 1040 Introduction to Statistics (recommended for Social Science majors)
- MATH 1050 College Algebra (recommended for Business, Education, Science, and Health Professions majors)
- One course that requires MATH 1050 as a prerequisite (excluding MATH 1060)
- An Advanced Placement (AP) Mathematics Test score of 3 or higher

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

Complete the following:
- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health & Wellness
- or PES 1097 Fitness for Life 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: 44 Credits
- ACC 3000 Financial, Managerial and Cost Accounting Concepts 4
- ENGL 4310 Advanced Technical Writing 3
- LEGL 3000 Business Law 3
- MGMT 3170 Entrepreneurship 3
- or TECH 3010 Technological Innovation and Creativity
- MGMT 3430 Human Resource Management 3
- TECH 3700 Purchasing, Inventory Control, Capacity Management 5
- TECH 3850 Quality and Inspection in Technology 3
- TECH 4000 Reliability Engineering and Safety 3
- TECH 4200 Technological Marketing and Distribution 3
- TECH 4400 Project Evaluation and Economics 4
- TECH 4420 Organization Information Technologies 3
- TECH 4500 Technological Project Management 4
- TECH 4910 Senior Capstone Project 3

Specialty Core Requirements: 45 Credits Minimum

Complete one of the following Technical Specialties (see relative department for details):
- Air Conditioning and Refrigeration Technology
- Apprentice
- Art and Visual Communication
- Automotive Technology
- Aviation Science
- Building Construction and Construction Management
- Building Inspection Technology
- Cabinetry and Architectural Woodwork
- Collision Repair Technology
- Diesel Mechanics Technology
- Drafting Technology
- Electrical Automation and Robotics Technology
- Electronic and Computer Technology
- Facilities Management
- Fire Science
- Lineman Technology
- Multimedia Communication Technology
- Sheet Metal
- Welding Technology
- Others from regionally accredited institutions offering an AAS degree

Graduation Requirements:
1. Completion of a minimum of 124 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 UVSC, with at least 10 hours earned in the last 45 hours
4. Completion of GE and specified departmental requirements.

NOTE:
No upper division Technology Management (i.e. Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

ADVISING REQUIREMENTS

Students should meet with a Technology Management advisor each semester for an update of their records and a degree audit of their progress.

BACHELOR OF APPLIED TECHNOLOGY — 122 CREDITS

Matriculation Requirements:
1. Have completed an AAT degree from UCAT in a sponsoring School at UVSC (60 credit hours)
2. Meet with an advisor in the AAT-emphasis discipline-related program and develop an academic contract specifying discipline-related courses, BAT core, BAT support courses, and BAT electives

General Education Requirements*: 23 Credits

Complete one of the following: 3
- HIST 1700 American Civilization
- HIST 2700 US History to 1877
- and HIST 2710 US History since 1877
- ECON 1740 US Economic History
- POLS 1000 American Heritage
- POLS 1100 American National Government

Complete the following:
- PHIL 2050 Ethics and Values 3
- HLTH 1100 Personal Health and Wellness
- or PES 1097 Fitness for Life 2

Distribution Courses
- Biology 3
- Physical Science 3
- Additional Biology or Physical Science 3
- Humanities Distribution 3
- Fine Arts Distribution 3

BAT Core Requirements: 81 Credits
- Complete AAT Degree in Community Health or Information Technology 60
- ENGL 4310 Advanced Technical Writing 3
- ISYS 3270 Business Presentation Applications 3
- MGMT 2200 Written Business Communication 3
- TECH 3850 Quality and Inspection in Technology 3

COMMUNICATION: Complete one of the following courses 3
- ENGL 2030 Rhetoric of Persuasion
- MGMT 4220 Management Communication
- MGMT 3320 Cross-Cultural Communications for International Business

SUPERVISION: Complete one of the following courses 3
- ISYS 3650 Training Lifecycle
- TECH 4500 Technological Project Management

TEAM BUILDING: Complete one of the following courses 3
- MGMT 3500 Leadership Process
- PSY 4250 Human Behavior in Organizations and Work

Elective Requirements: 18 Credits

Complete a minimum of one of the following courses: 3
- ISYS 3120 Principles of Information Systems: A Managerial Approach
- LEGL 3000 Business Law
- MGMT 3000 Organizational Behavior
- MGMT 3170 Entrepreneurship
- MGMT 3440 Managing Organizations
- MGMT 3600 Principles of Marketing
- MGMT 3620 Consumer Behavior
- MGMT 3630 Consumer Service
- MGMT 3650 Selling and Sales Management
- PHIL 3510 Business and Professional Ethics
- SOC 3460 Political Sociology
- SOC 4400 Social Change

BACHELOR OF APPLIED TECHNOLOGY (CON'T) 122 CREDITS

- TECH 4000 Reliability Engineering and Safety
- TECH 4100 Technology and Operations Management
- TECH 4200 Technology Marketing and Distribution

Upper-Division Discipline-Related Courses:

- Coursework planned with advisor 15

Graduation Requirements:

1. Completion of a minimum of 122 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 UVSC, with at least 10 hours earned in the last 45 hours.

NOTES:
*ENGL 1010, ENGL 2010 or ENGL 2020, MATH 1050, Social/Behavioral Science completed in the AAT degree)
**Students desiring to take more than three School of Business courses at or above the 3000 level must have a minimum accumulated GPA of 2.5 and have successfully completed the core foundation courses in the School of Business Information Technology program.

BA/BS IN INTEGRATED STUDIES 123 CREDITS

The following Integrated Studies emphases are available (see the Integrated Studies section of this catalog for complete degree requirement listings):

- Technology Management

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

TECH 2000 SS
Technology and Human Life
3:3:0 F, Sp
- Prerequisite: ENGL 1010

Designed to acquaint students with the main technologies affecting their culture and the global community. Places special emphasis on the moral, social, economic, legal, and political consequences. Introduces students to the major biotechnologies, information technologies, robotics and manufacturing, space, and military technologies of their generation. Explores the central writings and personalities leading the analysis of technology in the 21st century.

TECH 3010
Technological Innovation and Creativity
3:3:0 F

Focuses on principles of creativity and innovation as they apply to technological enterprises. Covers some theoretical bases of creativity, several structured methods of creative problem solving, and inventors and the invention process. Uses lecture, discussion, group projects, case studies, class activities, and guest lecturers.

TECH 3020
Product Innovation
3:3:0 Not 05-06
- Prerequisite: BSTM Matriculation or BSTM advisor approval

For Bachelor's Degree Technology Management majors. Introduces the management and development of technological products. Includes decision-making, value engineering, and make-buy justification. Uses case studies, tours, and laboratory experiences to identify appropriate technologies.

TECH 3030
Materials in Technology
3:3:0 Not 05-06
- Prerequisite: MATH 1060 or instructor approval and BSTM matriculation

For Bachelor's Degree Technology Management majors. Covers the basic principles of static, coplanar force systems, coplanar-nonconcurrent force system, stresses and strains, properties of materials, Poison's ratio, shear and bending diagrams, and beam design. Explores materials used in modern technology.

TECH 3700
Purchasing Inventory Control Capacity Management
5:5:0 Sp

Teaches principles of purchasing, raw and finished goods inventories, determining and managing capacity of equipment and workers. Explains Just-in-time, Kanban and scheduling. Prepares student for national certifications.

TECH 3850
Quality and Inspection in Technology
3:3:0 Sp

An advanced course in quality management related specifically to technical careers. Includes ISO 9000, continuous process/product improvement, statistical tests, performance measurements, supplier partnerships, costs, leadership and employee participation, Quality Function Deployment, and global quality initiatives. Prepares student for professional certification.

TECH 4000
Reliability Engineering and Safety
3:3:0 F

Studies interrelated aspects of reliability, safety, environmental concerns, and ergonomic considerations in a technological enterprise. Presents a mixture of academic study, investigation of numerous actual cases, surveys of local businesses, and discussion of current events in these areas. Studies OSHA, the EPA, and various governmental agencies.

TECH 4100
Technology and Operations Management
3:3:0 Not 05-06
- Prerequisite: BSTM Matriculation or BSTM advisor approval

For Bachelor's Degree Technology Management majors. Concentrates on manufacturing management and systems. Focuses on organization/planning, quality assurance, labor relations, cost control, material flow, facilities planning, materials handling, and production processes.

TECH 4200
Technology Marketing and Distribution
3:3:0 F

Teaches management of marketing, forecasting, and distribution within technical fields. Focuses on market-based profit and customer satisfaction. Applies concepts to technology planning and innovation. Prepares for national distribution certifications.

TECH 4300
Advanced Technical Experience
3:3:0 Not 05-06
- Prerequisite: Senior standing, BSTM advisor approval, and department approval

A capstone course for Bachelor's Degree Technology Management majors. Broadens technical skills through group participation, individual investigation, problem solving, and the application of applied research in technology development. Includes the preparation of development plans in a student's chosen discipline.

TECH 4400
Project Evaluation and Economics
4:4:0 F
- Prerequisite: ACC 3000
- Corequisite: ISYS 105D or instructor approval

Analyzes basic cost justification techniques for making economic decisions in technical organizations. Focuses on benefit/cost ratios, rate of return, uncertainty and probability, sensitivity analysis, estimating cash flows, accomplishing multiple and conflicting objectives, and inflation. Studies depreciation of technology, mutually exclusive alternatives, constrained project selection, geometric gradients, and replacement analysis.

TECH 4420
Organization Information Technologies
3:3:0 Sp

Introduces students to how information, and the management of that information, can affect the structure of organizations and how they operate. Covers technical and organizational foundations of information systems along with contemporary approaches to building, managing and protecting information systems. Emphasizes how information technology affects the decision-making and policy development process. In addition, examines the ethical and legal issues raised by the capabilities of information technology.

TECH 4500
Technological Project Management
4:4:0 Sp
- Prerequisite: LEGL 3000

Presents advanced management techniques for technological operations. Includes a systems approach to planning, scheduling, and controlling. Focuses on management techniques important for world-class, globally competitive companies. Appropriate for mega projects, international projects, and small businesses.

TECH 481R
Cooperative Work Experience
2-4:0:10-20 Su, F, Sp

- Prerequisite: Completion of 28 technical credits at Associate level; TECH 3700, TECH 4000, and TECH 4400; ENGL 4310

Provides a leadership transition from college to work where learned theory is applied to actual practice through a meaningful on-the-job paid experience. Includes student, employee and coordinator evaluation, on-site work visits, written assignment, and oral presentations. Completers should obtain experience in establishing and accomplishing individualized work objectives that improve work performance. Two credit hours may be used for credit.

TECH 485R
Cooperative Work Experience Correlated Class
1:1:0 Su, F, Sp

- Prerequisite: Completion of 28 technical credits at Associate level; TECH 3700, TECH 4000, and TECH 4400; ENGL 4310

Identifies on-the-job managerial problems through class discussion and study. Teaches resume and job interview letter writing, interviewing techniques, and personal and career goal setting. Provides experience in managerial problem solving. May include lectures, guest speakers, video tapes, role playing, case analysis, oral presentations, and written assignments. One credit hour may be used for credit.

TECH 4910
Senior Capstone Project
3:1:6 Su, F, Sp

- Prerequisite: Senior Status

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.

THEATRICAL ARTS FOR STAGE AND SCREEN

Department Chair: D. Terry Petrie
Office: FA 709
Telephone: 801-863-7222

Faculty:
Professor
G. Randall King
Assistant Professor
James Arrington
Elaine Hansen
Terry Petrie
Lecturer
Rick Moody
Stephen Purdy

School of Humanities, Arts, and Social Sciences

Dean: William W. Cobb, Jr.
Office: LA 209d
Telephone: 801-863-7435

The Department of Theatrical Arts for Stage and Screen offers programs of study leading to the Associate in Science degree. Courses satisfy general education requirements and transfer to four-year institutions. Students trained in theatrical arts find careers in education (children's theatre, K-12, college and conservatory), entertainment (performance, direction, or writing), production (design and construction or implementation for lights, sound, sets, props, and costumes and make-up), and management (producing, public relations, house and stage management, theatre ownership and arts management) in both the theatre and film industries.

Theatre students perform and support from six to nine public productions per year, including musical, classical, and modern genres. The study of both theatre and film provides cultural enrichment for students (majors and non-majors alike) cultivating life skills necessary for success in all professional pursuits. Each emphasis attempts to balance traditional, academic-style learning with applied, practical skills. Students of each emphasis experience hands-on training, an immediate feeling of belonging and multiple opportunities for personal growth, interpersonal development, cultural enrichment, and social understanding.

PROGRAMS

AS PRE-MAJOR IN THEATRE ARTS — 63 CREDITS

General Education Requirements: 35 Credits
- Complete General Education requirements as detailed in the General Education section of this catalog, using THEA 1013, Introduction to Theatre, as the Fine Arts Distribution.

Discipline Core Requirements: 28 Credits
Complete the following:
- THEA 1713 Script and Text Analysis 3
- THEA 1033 Fundamentals of Acting I 3
- THEA 1513 Stagecraft for Stage and Screen 3
- THEA 2553 Stage and Production Management 3
- THEA 259R Production Practicum for Stage and Screen (minimum of 1 credit per semester)* 4

Complete 12 credits within the desired emphasis below: 12

Performance
- THEA 1113 Voice and Diction
- THEA 2033 Fundamentals of Acting II
- THEA 2123 Introduction to Movement for the Actor
- THEA 2213 Makeup for Stage and Screen II
- THEA 2713 Introduction of Writing for the Stage and Screen
- THEA 2613 Directing Actors for Stage and Screen
- THEA 2443 Acting for Musical Theatre I
- THEA 2453 Acting for Musical Theatre II
- THEA 3713 Childrens Theatre in the Elementary School
- THEA 219R Performance Practicum for Stage and Screen

Design/Technical
- THEA 2033 Fundamentals of Acting II
- THEA 2213 Makeup for Stage and Screen II
- THEA 2223 Costumes for Stage and Screen
- THEA 2533 Lighting and Sound Design for Stage and Screen
- THEA 2523 Set and Prop Construction and Painting
- THEA 2613 Directing Actors for Stage and Screen
- THEA 219R Performance Practicum for Stage and Screen

Film
- THEA 1023 Introduction to Film
- THEA 2533 Lighting and Sound Design for Stage and Screen
- THEA 2313 Film History I
- THEA 2713 Introduction of Writing for the Stage and Screen
- THEA 2613 Directing Actors for Stage and Screen
- THEA 219R Performance Practicum for Stage and Screen (a maximum of 3 credits may be applied toward graduation)

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 UVSC.
4. Completion of GE and specified departmental requirements.

Notes:
*259R (repeatable production classes) is required by all tuition waiver and scholarship students in all emphases.
Production Participation: All AS Theatre students are required to work on at least one UVSC Theatre production crew per semester. These crews include (but are not limited to) set (construction and running), costume (construction and running), makeup, front of house, lighting (hanging and running), sound (creation and running), and stage management. Consequently students are **required** to register for 1 hour of THEA 259R (Production Projects for Stage and Screen) per semester for a total of four semesters. Receipt of four credits in less than four semesters does not fulfill the Production Participation requirement. Students should ideally diversify their crew experiences. Add cards are available in the Theatre Office, FA 707. It is the responsibility of the student to obtain the necessary instructor signature and to return the signed card to the Theatre Office.
Performance Participation: All AS Theatre students are required to attend department auditions at the beginning of each semester. Students who are cast to act in a production may register for one to two credits of THEA 219R per production. Add cards are available in the Theatre Office, FA 707. It is the responsibility of the student to obtain the necessary instructor signature and to return the signed card to the Production Stage Manager or to the Theatre Office.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

FAMT 281R
Cooperative Work Experience
2-9:1:5-40 F, Sp
• Prerequisite: 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.

THEA 1013 FF
Introduction to Theatre
3:3:0 Su, F, Sp
An dynamic introductory course which 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 FF
Introduction to Film
3:2:3 Su, F, Sp
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. Uses selected motion picture examples to examine the filmmaker's manipulation of time, space, and sound. Combines lecture, screening, and demonstration with critical discussions of assigned readings and films.

THEA 1033 GF
Fundamentals of Acting I
3:3:0 Su, F, Sp
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 GF
Voice and Diction
3:3:0 F, Sp
Designed for theatre, communication, and film majors; and other students interested in improving their vocal skills. Studies control and enhancement of the vocal mechanism. Stresses

respiration, phonation, and articulation. Includes vocal exercises, oral presentations and study of the International Phonetic Alphabet (I.P.A) combined with lectures, films, demonstrations, and critiques.

THEA 1223 GF
Makeup for Stage and Screen I
3:3:0 Sp
• Prerequisite: THEA 1513
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.

THEA 1513 GF
Stagecraft for Stage and Screen I
3:3:0 F, Sp
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.

THEA 1713
Script and Text Analysis
3:3:0 F, Sp
Introduces students to the analysis of story-based text across a range of media. Covers dramatic narrative and semiotic theory and dramatic literature from various periods in theatre history. Utilizes lecture, discussion, script and text analysis, film viewing, and live production attendance.

THEA 2033 GF
Fundamentals of Acting II
3:3:0 Sp
• Prerequisite: THEA 1033, THEA 1113
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 2113
Auditioning for Stage and Screen
3:3:0 F
• Prerequisite: THEA 1033
Prepares the student with the specific skills and knowledge to audition for stage and/or screen and to find success in the audition process, both psychologically and physically. Includes resumes and interview skills.

THEA 2123 GF
Introduction to Movement for the Actor
3:3:0 Sp
Designed to help 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 2133
Acting for Film
3:3:0 F, Sp
• Prerequisite: THEA 1033 or MCT 1110
Introduces the specialized techniques of performance, audition, and agent/actor relationships as they apply to the film and television industries.

THEA 219R GF
Performance Practicum for Stage and Screen
1-3:0:3-9 F, Sp
• Prerequisite: Permission of instructor
Provides opportunity for earning college credit for supervised performance opportunities in production. Applies learned skills in actual production performance. Criteria for project completion will be negotiated with the instructor on an individual basis. May be repeated for a maximum of 3 credits toward graduation.

THEA 2203
Theatre Costume Construction
2:1:2 Sp
Familiarizes students with sewing machine and serger operation, basic sewing techniques and skills of costume construction. Provides opportunity for practical experience working on UVSC Theatre Department productions.

THEA 2213 GF
Makeup for Stage and Screen II
3:3:0 F
• Prerequisite: THEA 1223
Continues the study of the development of physical characterization for scripted characters. Emphasizes makeup design and application, character analysis, and three-dimensional masks. Introduces prosthetics and various types of characterizations such as abstract, animal, monster, fantasy, and realistic.

THEA 2223 GF
Costumes for Stage and Screen
3:3:0 F
• Prerequisite: THEA 2513
Presents theories and fundamentals of costume design with practical application through research and rendering. Provides an overview of costume history and period research. Emphasizes conceptual ideas based in script and director's concept.

THEA 2313 FF
Film History I
3:2:3 F
• Prerequisite: THEA 1023
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 2323 GF
Film History II
3:2:2 Sp
• Prerequisite: THEA 1023
Survey of cinema history focused upon social, aesthetic, business, and technical dimensions of film and media from 1945 to the present. Emphasizes the parallel emergence and interrelationship of Hollywood and international cinema. Some films screened may be considered controversial and carry an "R" rating.

THEA 2333 GF
Race Class and Gender in Film
3:2:2 Sp
Raises cultural awareness through aesthetic, critical, and interdisciplinary examination of the evolution of ethnic and minority film in America. Focuses on how both Hollywood and independent minority filmmakers have "created" various ethnic and minority groups for the mass audience (i.e. "Representation"). Some films screened may be considered controversial and carry an "R" rating.

THEA 234R
Special Topics in Film Studies
3:2:2 F, Sp
• Prerequisite: 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 2443
Acting for Musical Theatre I
3:3:0 F
• Prerequisite: THEA 2033
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. Also incorporates the art of transitioning between dialogue and song.

THEA 2453
Acting for Musical Theater II
3:3:0 Sp
• Prerequisite: THEA 2443 or private audition
Builds upon basic musical theatre skills, training, and experience. Refines acting, singing, and dancing for musical theater. Links trends in musical theater with past and present artistic choices. Explores design aspects of musical theater and thematic integration of acting, singing, and dancing. Includes lecture, discussion, film, rehearsal, and performance.

THEA 249R
Musical Theatre Practicum
2:0:6 F, Sp
• Prerequisite: Instructor approval by audition
Prepares the student to perform in musical theatre through development of acting, singing, and dance techniques in performance showcase forum. Offers performance opportunities. May

be repeated for a maximum of 6 credits toward graduation.

THEA 2513
Introduction to Design for Stage and Screen
3:3:0 Sp
• Prerequisite: THEA 1513
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.

THEA 2523
Set and Prop Construction and Painting
3:3:0 Sp
• Prerequisite: THEA 2513
Surveys all elements and phases of set construction, property construction, and paint finishes for theater and television sets. Includes shop experience and work on actual productions. Emphasizes shop safety and professionalism. Utilizes lecture, demonstration, films, and observation of working production facilities and personnel.

THEA 2533 GF
Lighting and Sound Design for Stage and Screen
3:3:0 F
• Prerequisite: THEA 2513
Presents lighting and sound design techniques; study of and practices in conceptual perspective drawings, plot drafting, and sketching. Stresses sound creation, manipulation and reinforcement. Emphasizes conceptual ideas based in script and director's concept and design. Includes some production assignments, although it is not specific to production.

THEA 2543
Sets and Properties Design for Stage and Screen
3:3:0 F
• Prerequisite: THEA 2513
Presents theories and fundamentals of set design techniques through study of and practice in rendering, perspective drawing, plan drafting, sketching, and model building. Provides a general overview of the history of scenery and period research. Emphasizes conceptual ideas based in script and director's concept.

THEA 2553
Stage and Production Management
3:3:0 F, Sp
• Prerequisite: THEA 1513
Introduces the roles and responsibilities of the production stage manager and production manager including production book, scheduling rehearsals, production, and shooting schedules. Emphasizes leadership in all production areas and meeting the needs of the director. Isolates the differences in stage management for theatre and film.

THEA 2563
Art Direction for Film
3:3:0 Sp
Prerequisite: THEA 2513
Emphasizes the creation of studio sets as well as location selection, props and costumes for film. Involves collaboration with director and art department to create design elements for film production.

THEA 259R GF
Production Practicum for Stage and Screen
1:0:3 F, Sp
Provides opportunity for earning college credit for supervised projects in any area of production, excluding performance. Involves the development of a contract between student and the assigned instructor. May be repeated for a maximum of 4 credits toward graduation.

THEA 2613 GF
Directing Actors for Stage and Screen
3:3:0 F
• Prerequisite: (THEA 1713 and THEA 1033) or MCT 2110
Introduces basic directing techniques utilized in casting and rehearsing actors for stage and screen performance. Places emphasis on achieving 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, casting techniques, and rehearsal techniques.

THEA 2713
Introduction of Writing for the Stage and Screen
3:3:0 F
Introduces dramatic writing in plays and screenwriting. Covers script formatting, dramatic structure, theatre and film conventions, use of dialogue, character, and plot development. Requires writing monologues, scene treatments, a short one-act play, and a short screenplay.

THEA 290R
Independent Study
1-5:1-5:0 F, Sp
For students with advanced 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.

THEA 3713 XF
Childrens Theatre in the Elementary School
2:2:1 F, Sp
For students majoring in elementary education and/or theatre, speech, or communications. Emphasizes child drama and speech activities in the elementary school. Studies storytelling, story theatre, mask drama, puppetry, and creative dramatics. Includes lectures, demonstrations, workshops, rehearsals and performances before children in local elementary schools. Addresses the Utah State Core Curriculum in Theatre for the elementary school. Completion of a second course is required to satisfy the fine arts requirement (see Graduation section of catalog).

WELDING TECHNOLOGY

Department Chair: Steve Fordham

Office: GT 616c
Telephone: 801-863-8167

Program Coordinator: Lynn Baadsgaard
Office: GT 525a
Telephone: 801-863-8382

Faculty:

Instructor
Lynn Baadsgaard

Office Manager/Advisor: Jennifer Merkley
Office: GT 613e
Telephone: 801-863-7405

Advisory Committee: Steve Robertson, Flowserve; Robert Patch, Patch's Majestic Metals; Skip Peterson, Earthtec Testing and Engineering; Daryn Smith, United States Welding; Steve Anderton, EZARC; Rob Simmons, Klemp.

School of Computing, Engineering and Technology

Dean: Thomas McFarland
Office: CS 720b
Telephone: 801-863-8995

CAREER OPPORTUNITIES

The Welding Technology program is closely coordinated with business and industry needs to provide concentrated courses in manipulative and technical skills required for the various welding fields. Course content includes state-of-the-art training in such welding skills as oxy-acetylene, arc, resistance, shielded metal, braze, soft soldering and hardfacing, mig and tig welding, and plastic welding. Includes experiences with manual, semi-automatic, and automatic welding machines. The program includes familiarization with computer programming of welding machines with digital functions.

Courses include blueprint reading fundamentals, layout, and trade terminology. Metallurgy and heat treating of metals will also be taught. Processes such as oxy-fuel gas and plasma cutting processes, and preparing metals for welding or other fabrication by grinding, drilling, punching, shearing or forming in a press, break, or rolls will be taught. In addition, basic mathematics and technical writing skills as used in business and industry will be included.

Upon successful completion of this program, students should be prepared to meet business and industry standards for entry level jobs in the various welding and metals fields. Their training in the Welding Technology program will prepare them for employment as welders, boilermakers, iron workers, pipe fitters, mechanics, maintenance welders, fabricators, construction welders, layout persons, and quality control.

PROGRAMS

Three programs are available: The Two-year Diploma, Associate in Applied Science Degree (AAS), and the Bachelor of Science in Technology Management Degree.

DIPLOMA IN WELDING TECHNOLOGY — 55 CREDITS

Discipline Core Requirements:			55 Credits
• CLSS	1000	Student Success	
or ENGL	106A	Career Writing for Technology—A	2
• DT	1000	Basic Drafting	2
• HLTH	1200	First Aid	2
• WELD	1100	Essentials of Welding	8
• WELD	1200	Intermediate Arc Welding	6
• WELD	1210	Print Reading and Layout	6
• WELD	1250	Math for Welders	2
• WELD	2300	Portable & Advanced Arc Welding	7
• WELD	2310	Welding Inspection	2
• WELD	2320	Metallurgy	4
• WELD	2400	Industrial Joining Processes	8
• WELD	2410	Advanced Blueprint and Design	3
• Social/Behavioral Science			1
• MET	1350	Related Machine Shop Practice	2

AAS IN WELDING TECHNOLOGY — 64 CREDITS

General Education Requirements:			16 Credits
ENGLISH			2
• ENGL	1010	Introduction to Writing	
• ENGL	1060	Career Writing for Technology	
• ENGL	106A	Career Writing for Technology—A	
• MGMT	2200	Written Business Communication	
MATHEMATICS			2
• MAT	1010	Intermediate Algebra	
• Any higher Mathematics Course			
• Any approved Departmental Mathematics Course			
HUMANITIES/FINE ARTS/FOREIGN LANGUAGE			2
• PHIL	2050	Ethics and Values	
• Any approved Humanities, Fine Arts, or Foreign Language Distribution Course			
SOCIAL AND BEHAVIORAL SCIENCE			2
• MGMT	3000	Organizational Behavior	
• Any approved Behavioral Science, Social, or Political Science Distribution Course			
BIOLOGY OR PHYSICAL SCIENCE			2
• PHYS	1810	Principles of Technology I	
• PHYS	1820	Principles of Technology II	
• Any approved Biology or Physical Science Distribution Course			
PHYSICAL EDUCATION/HEALTH/SAFETY OR ENVIRONMENT			1
• Any approved Physical Education, Health, Safety or Environment Course			
• ADDITIONAL CREDITS FROM ANY OF THE ABOVE			5
Discipline Core Requirements:			48 Credits
• DT	1000	Basic Drafting	2
• WELD	1100	Essentials of Welding	8
• WELD	1200	Intermediate Arc Welding	6
• WELD	1210	Print Reading and Layout	6
• WELD	1250	Math for Welders	2
• WELD	2300	Portable & Advanced Arc Welding	7
• WELD	2310	Welding Inspection	2
• WELD	2320	Metallurgy	4
• WELD	2400	Industrial Joining Processes	8
• WELD	2410	Advanced Blueprint and Design	3
Recommended Courses:			
• BUS	1000	Keyboarding Basics	
• ISYS	1350	Beginning Word Processing	

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 hour—minimum of 20 credit hours through course attendance at UVSC
4. Completion of GE and specified departmental requirements

Students desiring to transfer to a four-year college for a bachelor's degree in Welding Technology should take the approved General Education courses as outlined in the Graduation section of the catalog. They should also take 28 hours of approved Welding credits. Check with the department for further information.

For students desiring short-term training, a brief four-month Welding Essentials course is offered. This training provides learning through hands-on experiences and applications. Practical, relevant assignments provide knowledge in the variations in welding parameters that affect the weld being made. Students are taught skills needed to obtain work at an entry level. (WELD 1210 and WELD 1250 are offered Spring semester only).

WELDING ESSENTIALS

• WELD	1100	Welding Essentials	8
• WELD	1210	Print Reading and Layout	6
• WELD	1250	Math for Welders	2

For more information, contact the Mountainland Applied Technology Center on the West Campus, 863-7565; or the Dean of Technology, Trades, ad Industry, 863-8350.

BS IN TECHNOLOGY MANAGEMENT — 124 CREDITS

The following technical area is available (see the Technology Management section of this catalog for complete degree requirement listings).

Welding Technology

Specialty Core Requirements:			46 Credits
• DT	1000	Basic Drafting	2
• WELD	1100	Essentials of Welding	8
• WELD	1200	Intermediate Arc Welding	6
• WELD	1210	Print Reading and Layout	6
• WELD	2300	Portable & Advanced Arc Welding	7
• WELD	2310	Welding Inspection	2
• WELD	2320	Metallurgy	4
• WELD	2400	Industrial Joining Processes	8
• WELD	2410	Advanced Blueprint and Design	3

NOTES:
No upper division Technology Management (i.e. Technology Management or Business Management) course work older than six years can be counted toward graduation.
If student chooses HIST 2700 and HIST 2710, the additional three hours may be used towards a social science distribution requirement.
Students will be limited to 15 hours of upper division (3000-4000 level) coursework until matriculation requirements are complete and students have been admitted into upper division status. Students will not be allowed to matriculate and graduate in the same semester.

Due to the technical nature of the material in these courses, additional reading and math instruction may be required. More information will be given during advisement.

See Apprenticeship section of the catalog for welding related apprentice classes.

COURSE DESCRIPTIONS

The following descriptions may include other important information regarding each course, such as: general education (GE) code, terms offered (Su=Summer, F=Fall, Sp=Spring), or pre- and/or corequisite requirements.
Courses marked with a double asterisk (**) indicate an honors course is available. Some

sections of courses marked with a dagger (†) may be applied toward Service Learning credit (see the Student Services section of the catalog for more information).

WELD 1010
Related Oxyacetylene Welding
2:1:3 F, Sp
A specialty course for various trades and community members. A beginning course which covers theory and practice of oxyacetylene fusion welding of sheet steel, including cutting, welding and braze welding of ferrous and non-ferrous metal.

WELD 1020
Related Arc Welding
2:1:3 F, Sp
A specialty course designed for various trades and community members. For beginning students interested in learning basic arc welding techniques, theory, and practices including types of machines, electrodes and their application. Studies types of joints, expansion and contraction of metals, inspection and testing of welds, care and use of tools and equipment, as well as safe practices in welding.

WELD 1030
Related Oxyacetylene and Arc Welding
3:1:7 F, Sp
A specialty course designed for refrigeration, 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.

WELD 1040
Fundamentals of Welding and Sculpture
3:1:7 F, Sp
Covers the use of welding processes in the design, fabrication, and production of welded structure including sculpture. Introduces the theory and practice of basic oxyacetylene welding, brazing and silver braze. Includes the design principle, art technique, and the history of metal sculpture.

WELD 1100
Essentials of Welding
8:3:15 F
For Welding Technology majors and interested community members. Beginning course in entry level skills basic to industry in principles and techniques of oxyacetylene welding and cutting and arc welding. Includes use of mild steel stick electrodes for beading, fillet and groove welds in flat positions. Emphasizes safety, proper care and use of equipment.

WELD 1200
Intermediate Arc Welding
6:2:13 Sp
• Prerequisite: WELD 1100
For Welding Technology majors with emphasis on the welding of 3/16 to 1/2 inch steel plate, using AWS E6010, E7014, E7018, and E7024 mild steel and low alloy electrodes. Emphasizes fillet and groove welds in horizontal and vertical positions. Includes lab.

WELD 1210
Print Reading and Layout
6:5:3 Sp
• Prerequisite: DT 1000
For Welding Technology majors. Studies basic print interpretation and visualization for industrial applications. Includes weld symbols, covers layout techniques, from shop drawings to fabrication, of sheet metal, plate, pipe and structural shapes. Includes lab.

WELD 1250
Math for Welders
2:2:0 Sp
• Prerequisite: MAT 0800 or instructor approval.
For Welding Technology majors. Covers a practical application of algebra and geometry as used in industry. Introduces trigonometry and advanced measurement.

WELD 2300
Portable and Advanced Arc Welding
7:3:13 F
• Prerequisite: WELD 1100, WELD 1200
Studies theories and principles of internal combustion gasoline and diesel engines pertaining to portable welding power plants. Includes basic electrical principles, preventative maintenance, and troubleshooting. Emphasizes vertical and overhead positions welding. Includes lab. Successful completers must have passed welding qualification tests in all four welding positions with AWSE7018.

WELD 2310
Welding Inspection
2:2:0 F
For Welding Technology majors. Presents skills and techniques to assist welders and welding inspectors to better perform their duties. Procedure and qualification testing welds and welders are studied. Studies inspection procedures. Includes destructive and non-destructive testing for the various welding defects. Emphasizes heat treatment operations.

WELD 2320
Metallurgy
4:4:0 F
For Welding Technology majors. Emphasizes welding carbon and alloy steels used with metals such as cast irons, aluminum and its alloys, copper, and nickel. Studies electrodes, processes and techniques. Discussions and demonstrations are given on various methods of heat treatment. Emphasizes metal properties.

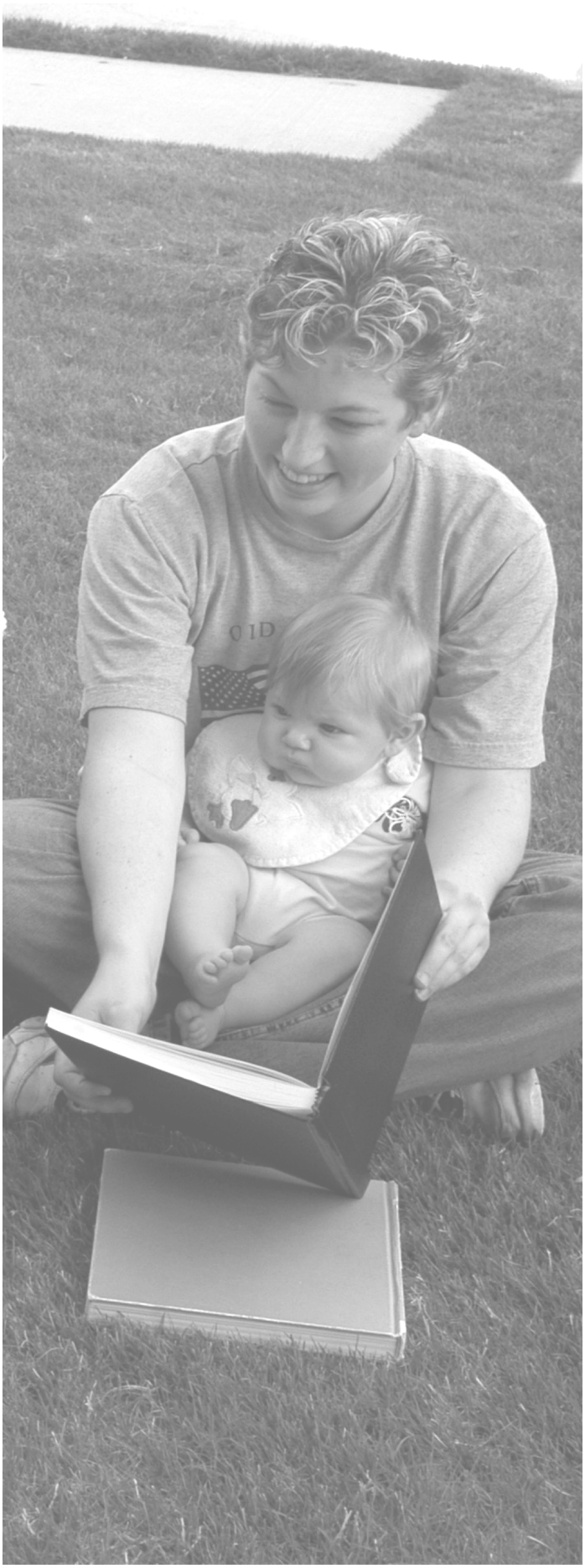
WELD 2400
Industrial Joining Processes
8:3:15 Sp
• Prerequisite: WELD 1100, WELD 1200, WELD 2300
For Welding Technology majors. Covers common current industrial welding processes, namely tungsten-arc, gas metal-arc, resistance, and other special manual and semi-automatic welding processes. Includes carbon arc cutting, welding of aluminum, stainless steel, and alloy steels. Emphasizes qualification testing on open-root tig. Stresses pipe welding techniques, cost estimation and industrial rigging terminology. Includes lab.

WELD 2410
Advanced Blueprint and Design
3:2:3 Sp
• Prerequisite: DT 1000 and WELD 1210
For Welding Technology majors. Covers interpretations of advanced blueprints and layout problems. Uses advanced design and fabrication techniques on personal projects. Discusses new concepts in pattern design and instrumentation use. Includes lab.

WELD 281R
Cooperative Work Experience
1-8:0:5-40 F, Sp
• Corequisite: WELD 285R
Designed for Welding Technology majors. Provides paid, on-the job work experience in the student's major. Work experience and the correlated class are coordinated and approved by the Cooperative Coordinator. Includes student, employer, and coordinator evaluations, on-site work visits, written assignments, and oral presentations. Gives experience in writing and completing individualized work objectives that improve present work performance.

WELD 285R
Cooperative Correlated Class
1:1:0 F, Sp
• Corequisite: WELD 281R
For Welding Technology majors. Designed to identify on-the-job problems and provide 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. Methods include 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.

WELD 299R
VICA
1:1:0 F, Sp
Designed for Welding 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.



School of Continuing and Adult Education

The School of Continuing Education has specially designed courses and programs to serve non-traditional students. Accordingly, Continuing Education has designed our courses and programs to provide lifelong educational opportunities for people with very diverse educational needs.

ASSISTANT VICE PRESIDENT/DEAN: PAMELA J. GARDNER

Office: Continuing Education Center
Telephone: 801-863-8779

Dean: J. D. Davidson
Wasatch Campus
Office: WC 209d
Telephone: 801-863-8449
435-654-6284

Associate Dean: Robert G. Burns
Office: WC 127
Telephone: 801-863-8088

Assistant Dean: Ted Ungricht
Office: MT-105
Telephone: 801-863-8008

PROGRAMS OFFERED

Evening School/Weekend College

Director: Robert G. Burns
Coordinator: John P. Macfarlane
Office: WB 101d
Telephone: 801-863-8449

- Evening Classes
- Weekend College
- Driver Education
- University Mall Education Center
- Spanish Fork Education Center
- North Valley Education Center

Distance Education

Director: Scott Herd
Office: LC 216j
Telephone: 801- 863-6241
Website: www.uvsc.edu/disted

Center for Lifelong Learning

Director: Lenora Plothow
Office: Continuing Education Center
Telephone: 801-863-8009

Non-Credit Registration Center

Supervisor: Olena Hunt
Office: Continuing Education Center
Telephone: 801-863-8399

Centro Hispano-Command Spanish

Coordinator: Diana Hunter
Office: Continuing Education Center
Telephone: 801-863-7427

Community and Adult Education

Director: Lenora Plothow
Manager: Russ Collett
Office: Continuing Education Center
Telephone: 801-863-8372

Conferences and Workshops

Coordinator: Luella Jones
Program Coordinator: Connie Vincent
Administrative Assistant: Janet Alverson
Office: Continuing Education Center
Telephone: 801-863-8485

Elderhostel

Coordinator: Gary Nielsen
Program Assistant: Kathleen Pribyl
Office: Continuing Education Center
Telephone: 801-863-8495

Mountainland Adult School-To-Careers

Director: Dennis Hales
Office: Red House southwest corner of MATC
Telephone: 801-863-7548

Utah Valley Elder Quest

Director: Lenora Plothow
Program Assistant: Ernest Krey
Office: Continuing Education Center
Telephone: 801-863-8398

Equity in Education: Training and Resource Center

Director: Jenny L. Chamberlain
Office: FA 701
Orem, UT 84058
Telephone: 801-863-8498
Website: www.uvsc.edu/conted/equity

High School Concurrent Enrollment

Director: Ted Ungricht
Office: MT-105
Telephone: 801-863-8376

Turning Point

Director: Carol Verbecky
Assistant Director: Dixie Sevison
Office: MT, Room 116
987 South Geneva Rd.
Telephone: 801-863-7580

Wasatch Campus

Dean: J. D. Davidson
Wasatch Campus
Office: WC 209d
Telephone: 801-863-6600
435-654-6482

The Wasatch Campus is beautifully located north of Heber City, Utah in Wasatch County. The Campus currently offers associate degrees in science and arts. Students can complete the first two years of college and transfer the degrees to another institution to complete a baccalaureate degree. Courses are offered with the same quality and rigor as found on the Orem Campus of UVSC.

The tuition and fees are the same as the Orem Campus.
Parking is better.

Contact:
Academic Advisor: Donna Creighton
Office: WC 2091
3111 College Way
Heber City, UT 84032
Telephone: 801-863-6600
435-654-6482

Academic Advisor: Katie Young
Office: WC 210
3111 College Way
Heber City, UT 84032
Telephone: 801-863-6619
435-654-6482

Women's Resource Center

Coordinator: Peggy Pasin
Office: WB 146r
Telephone: 801-863-8080 Programs Offered

CONTINUING AND ADULT EDUCATION

School of Continuing and Adult Education

Dean: Pamela J. Gardner
Office: CE 205
Telephone: 801-863-8779

Dean: J.D. Davidson
Wasatch Campus
Office: WC 209d
Telephone: 801-863-6600
435-654-6284

Associate Dean: Robert G. Burns
Office: WB 127
Telephone: 801-863-8088

Assistant Dean: Ted Ungricht
Office: MT 105
Telephone: 801-863-8008

PURPOSE

The School of Continuing Education has designed courses and programs to provide lifelong educational opportunities for people with diverse educational needs–

- to earn college credit while attending high school.
- to earn a degree or certificate in their field of interest.
- to advance their careers by keeping them informed of new developments in their field.
- to enhance the quality of their personal and intellectual lives.
- to offer opportunities for educational travel and the creative enjoyment of leisure time.
- to offer courses via technology regardless of location.

TUITION AND FEES

Tuition and student fees are established by the State Board of Regents for credit bearing courses. Specific information is contained in the "Tuition and Fees" section of this catalog as well as in each semester's class schedule.

Fees for special courses, workshops and conferences vary, depending on enrollment, location, and special instructional costs. Please consult the current semester class schedule for detailed information.

FINANCIAL AID

A varied and comprehensive program of financial aid is available to all students at the College who meet the criteria for financial assistance. For detailed information, please consult the "Financial Aid" section of this catalog.

COURSES AND PROGRAMS

A large selection of credit and noncredit courses, as well as special seminars, training programs and workshops are offered through Continuing Education. All credit courses are sponsored by the academic departments of the College, and classes are offered in the evening, on weekends, at off-campus centers, through the Internet and on television to meet the special needs of individuals and groups in the community and throughout the State of Utah. Please consult the semester class schedule for detailed information, or contact Continuing Education 801-863-8450.

DISTANCE EDUCATION

Director: Scott Herd
Office: LC 216
Telephone: 801-863-6241
Website: www.uvsc.edu/disted

Distance Education Support Services
Director: Monty Georgi
Telephone: 801-863-HELP (4357)
(Outside Utah County: 1-888-425-4412)
Fax: 801-863-7298
E-mail: DEHelp@uvsc.edu

Project Development
Coordinator: Anne Arendt
Office: CS 635
Telephone: 801-863-7328

Course Delivery
Coordinator: Elizabeth Warner
Office: CS 601f
Telephone: 801-863-8907

Marketing and Public Relations
Coordinator: Farah A. Chase-Dunn
Office: CS601d
Telephone: 801-863-8041

Finance:
Coordinator: Stacy Fowler
Office: CS601c
Telephone: 801-863-6225

Distance Education delivers and supports a variety of credit, non-credit, and certificate-based courses, using a number of technologies including Internet, broadcast, cable and satellite television, point-to-point interactive television (EDNET), videotape, DVD, and CD-ROM. Distance Education provides a one-step service center designed to meet the needs of distance education students and faculty. Students can access a service representative in person, by phone, Live HELP, e-mail, fax or regular mail. The center assists students in obtaining course materials and rents telecourse video and DVD sets for a minimal fee. The center is open 8:00 a.m.-9:00 p.m MST. Monday through Friday. Service representatives work with faculty in producing, duplicating, and distributing materials. They also receive, track and return assignments and tests.

The Distance Education website www.uvsc.edu/disted provides listings on all courses offered through UVSC Distance Education. Online distance education orientation, degrees offered, prices and fees, off-campus learning site listings, and instructions on how to obtain course materials are provided. Helpful information on Financial Aid, Registration, the UVSC Library, Bookstore, Online Writing Lab (OWL), Career and Academic Counseling Center, and the Distance Education Service Center are listed for student convenience. The website supports the three different modes of course delivery for Distance Education: Internet/Online, Television/Video, and Interactive.

Internet/Online Courses

Distance Education offers over 120 Internet courses. These courses are taken online through the Distance Education System. Online courses allow students to develop a more flexible learning schedule. Online courses are delivered anywhere and anytime a student has access to the Internet.

Some courses may require the student to have the following skills:

- Send and receive e-mail
- Send and receive attachments
- Download files to a disc and print them off
- Locate a specific website or URL
- Word processing

Broadcast/Telecast

Telecourses allow students to learn via broadcast on local stations, or by renting prerecorded video and DVD course sets from the Distance Education Service Center on the UVSC Orem Campus in CS 601. Courses are available on a number of different channels within the state of Utah, including:

KULC (Channel 9)

KBYU (Channel 11)

ATT Cable 14

ATT Cable 17 (North Utah County)

Some broadcast courses also require Internet connectivity to access support material. The course syllabi indicate such a requirement.

Interactive Courses

Interactive courses take place in a group at a high school or community center that is connected through interactive television to electronic classrooms at UVSC. Sites throughout Utah are connected to UVSC using various technologies including two-way audio/video fiber optic, microwave, and compressed video links. At these sites you can see, hear and talk to one another, and your instructor. A few sites that use satellite technology to connect to

UVSC allow you to see, hear, and talk to an instructor live.

Online Degrees

Credit from Distance Education courses may be applied towards a degree at UVSC, or degree programs offered entirely online. UVSC currently offers over 150 courses through Distance Education. The credits from these courses will apply to any degree offered by UVSC.

Online Aviation Degrees: In conjunction with flight schools throughout the United States, UVSC offers Associate in Science (Job Ready Degrees), Associate in Science and Bachelor degrees in Aviation Science.

Online Criminal Justice Degree: This degree is offered by a consortium of Utah community and state colleges working together to make courses available throughout the state. Students must register through their home institutions. For information, contact the Legal Studies Advisor at 801-863-8489.

Utah Electronic College (UEC)

The Utah Electronic College is a consortium of Utah community and state colleges working together in a united and seamless fashion to make all the electronically delivered courses and programs offered readily available to students in Utah and throughout the world. This greatly increases access to degrees and courses.

If a student chooses to enroll in courses through UEC, he/she should select UVSC as the "home" institution. For more information go to the UEC website: www.uec.org or call toll free 1-877-533-9235.

HIGH SCHOOL CONCURRENT ENROLLMENT

Director: Ted Ungricht
Office: MT 105
Telephone: 801-863-8376

Qualified high school students may, with approval, take college-level courses at their high school.

High school faculty who are certified UVSC adjunct instructors teach concurrent enrollment courses held at the high schools. These classes parallel those at UVSC, including course syllabi, textbooks, modes of instruction, examinations, and evaluation.

The only fee charged to high school students for these classes is the one-time admission fee. Examples of classes that may be offered include college algebra, American civilization, drafting, and college writing. Arrangements for these college classes are made cooperatively between the respective school principal and the UVSC Concurrent Enrollment Office. All courses are approved by the school district.

Many courses are delivered by interactive television and Internet to high school sites throughout the state. Students are expected to pay for their own textbooks for these classes.

In addition, many students desire to enroll in college classes on the college campus. High school students who desire to attend classes on the college campus should see their high school counselors. Students attending classes on the UVSC campus are expected to pay the admission fee, tuition, students fees and text books.

For information on high school concurrent enrollment programs, contact the UVSC School of Continuing Education at 801-863-8933.

CENTER FOR LIFELONG LEARNING

Director: Lenora Plothow
Office: Continuing Education Center
Telephone: 801-863-8009

The mission of the Center for Lifelong Learning is to provide learning opportunities that improve skills and enrich the lives of students of all ages and all walks of life. Such opportunities are provided for children and youth, traditional college-age students, adults including the ever-increasing mature population, and populations with particular needs. Assessing and addressing community wants and needs are a continual priority within each of the Center's program areas. Excellent program content and skilled management give the Center for Lifelong Learning a first-class reputation throughout the state, region and, in some instances, the nation.

The unique partnership with school districts to provide optimum community education opportunities is a model program. UVSC Elderhostel programs that repeatedly enroll returning students from across the country include intergenerational activities and particularly the programs which focus on skiing in Park City and at Sundance. The Adult School-to-Careers program continues to be a model that is addressing the needs of special populations. The Center for Lifelong Learning continually strives to remain at the forefront of exciting new and ongoing educational programming.

COMMUNITY EDUCATION

Director: Lenora Plothow
UVSC/Alpine School District/Provo School District
Community Education Manager: Russ Collett
Telephone: 801-863-7428
UVSC Coordinator: Eric Palmatier
Telephone: 801-863-7427
Registration Technician: Sally Menefee
Telephone: 801-863-8012

UVSC/Alpine and Provo School Districts: A unique and effective partnership exists between UVSC and both Provo and Alpine School Districts which provides extensive outreach to communities within Utah Valley.

A variety of non-credit courses are offered at several locations throughout the community including UVSC main campus, University Mall Education Center, at several school buildings within Alpine and Provo School Districts and at other sites. In addition, classes are available online. Areas of focus include topics in general, vocational, professional, recreational, and avocational education. All subject matter is developed and offered with the needs and interests of the community in mind. Seasonal classes/activities are provided in the fall, winter and summer.

Continuing Education Units (CEUs) are granted for most courses and a transcript is generated for each student. Certificates are given for appropriate courses/activities.

Community Education non-credit classes are advertised in the DISCOVER brochure published by the School of Continuing Education prior to the beginning of each semester. This brochure is distributed by mail throughout the community. It is also available on-line on the UVSC web site, at the Continuing Education Offices on the Main Campus, at the Education Center at University Mall, and at all public libraries throughout Utah County. For additional information, call 801-863-8012.

MOUNTAINLAND ADULT SCHOOL-TO-CAREERS

Director: Dennis L. Hales
Office: 991 S. Geneva Rd.
Telephone: 801-863-7548

Adult students seeking more skills or education to improve upon their current employment situation can find assistance through the Adult School-To-Careers Service Center at UVSC.

This program serves non-traditional adult students who are either non-high school graduates, self-supporting youths not in school, limited English-speaking adults, or unemployed or underemployed adults with limited skills or training.

Due to the unique circumstances of the students, the education and training services differ from the traditional approaches. Participants benefit from learning marketable skills that will allow them to obtain and retain meaningful employment.

School-to-Careers offers a variety of services such as comprehensive assessment of per-

sonal, educational, and career needs, educational and occupational counseling, tracking and mentoring support, appropriate level educational placement services, high school completion and GED preparation, work-based learning experiences and coordination of local resources.

Additional resources are provided through partnerships with the Department of Workforce Services, Adult High Schools, Department of Rehabilitation Services, Center for Personal and Career Development, Mountainland Applied Technology Center, Project Read, Community Action Agency, Workforce Investment Act, and Utah Valley State College.

ELDERHOSTEL

Coordinator: Gary Nielsen
Office: Continuing Education Center
Telephone: 801-863-8495
Program Assistant: Kathleen Pribyl
Telephone: 801-863-8490

Elderhostel is a short-term education/travel program for adults 55 and over who want to expand their horizons and to develop new interests and enthusiasms. It is a non-profit educational organization offering short-term academic programs hosted by educational institutions around the world. The Center for Lifelong Learning offers Elderhostel programs on campus, at Park City, Vernal, Delta and Salt Lake City with a new concept program entitled "Sample Utah." "Sample Utah" provides a historical and geological exploration as the students move from site to site exploring Utah history, geology and cultures.

ELDER QUEST

Program Assistant: Ernest Krey
Telephone: 801-863-8398

Utah Valley Elder Quest was organized in 1992 and is modeled after Institutes for Learning in Retirement where classes are taught by instructors who are willing to share their knowledge and expertise. Classroom, field study, and travel experiences combined with social activities provide lifelong learning in unique and companionable surroundings. Utah Valley Elder Quest is an affiliate of the Elderhostel Institute Network.

CONFERENCES & WORKSHOPS

Coordinator: Luella Jones
Program Coordinator: Connie Vincent
Administrative Assistant: Susan Palmer
Office: Continuing Education II
Telephone: 801-863-8485
Website:
www.uvsc.edu/conted/seminars

Conferences and Workshops is committed to offering professional development courses, seminars, workshops and conferences that encompass professional development, training, upgrading and/or career enhancement opportunities. Often these events are held in conjunction with on-campus departments or educational associations in the community.

TURNING POINT

Director: Carol Verbecky
Office: MT 116
987 South Geneva Rd.
Telephone: 801-863-7580

The Turning Point Center for Personal and Career Development is a resource for school and community populations throughout the Mountainlands Region. Those individuals who want to improve on a personal and/or professional level are encouraged to contact the Center. Turning Point is dedicated to delivering quality services through supportive and educational processes which increase the emotional, social and economic well-being of the participants. Some participants may qualify for services at little or no cost. Individuals who can benefit from the program include:

- Low-income families, single parents, dislocated workers, displaced homemakers and the working poor.
- Individuals who are making education or career decisions.
- Those who are re-entering the workforce after a long absence or who are retraining for new positions.
- Couples wanting to increase communication skills and enhance their relationships.
- Those wanting to improve their responses to anger.
- Those adjusting to divorce.

CLASSES INCLUDE:

Personal Development

Learn how to communicate effectively with others. See how understanding yourself is a key to understanding and improving personal relationships. This class covers communication styles, listening skills, conflict resolution and exploring loving relationships, and personal empowerment.

Professional Development

Professional Development is for the individual seeking information about education or employment opportunities. The curriculum focuses on understanding personal strengths and abilities, the current labor market and specific job-seeking skills. Topics covered include transitional skills, networking, informational interviewing, resume writing, interviewing techniques, non-traditional jobs, sexual harassment, dressing for success, etc. The class is taught in a relaxed, informal atmosphere.

Successful Life Management

Successful Life Management is a class that combines both personal and professional development. It is designed to help participants improve communication and job-seeking skills. Clients develop a professional resume and interviewing expertise needed for today's job market.

Anger Management

Increased rates of abuse in the community led to the development of the Anger Management curriculum. The course focuses on understanding what triggers anger and appropriate methods of resolving conflict. The class combines lecture, experiential learning and practical application. Time is given in class for participants to practice newly acquired skills.

Parenting Skills

This class incorporates many of the skills taught in the Personal Development course with the focus on creating self-esteem in children and leaning to communicate effectively with them.

Enhancing Marriage Relationships

This class is specifically for couples who want to learn to communicate effectively. Skills are identified and practiced. Opportunity is given to work through existing problems and barriers. The class involves both learning theory and practical application and is facilitated by skilled therapists. This class is offered to anyone planning on getting married and for married couples who want to learn to communicate effectively.

ADDITIONAL SERVICES:

Divorce Adjustment

Designed to help those who are adjusting to the challenges of being divorced, this class covers topics such as forgiveness, setting and maintaining boundaries, problem solving, understanding the child's divorce experience, redefining roles, resuming dating, etc.

Wee Care Childcare Center

The Wee Care Center is designed to meet the childcare needs of student parents. First priority is given to those who are low-income, and all services are based on a sliding scale. Quality care is provided to children ages six weeks to twelve years.

The Women's Resource Center

Coordinator: Peggy Pasin
Office: WB 146f
Telephone: 801-863-8080

The Women's Resource Center provides student support to both women and men seeking a UVSC education. An on-site coordinator provides advocacy, mentoring, scholarship information, tutoring information and community referrals to those in need.

Services include:

- Assessment/Remediation
- Educational/Career Information
- Financial Resources for Training/Education
- Inter-Agency Referrals

- Personal Counseling/Therapy
- Job-Seeking Information
- Resume/Application Assistance
- Scholarships
- Supportive Services/Daycare

EVENING SCHOOL

Director: Robert G. Burns
Coordinator: John P. Macfarlane
Coordinator: E. Linda Moore
Office: WB 101d
Telephone: 801-863-8449
E-mail: eveweek@uvsc.edu
Web-Site: www.uvsc.edu/conted

UVSC evening classes serve over 6,000 students with over 450 classes each semester. Evening School classes begin at 5:00 PM and are held on the UVSC Orem Campus. Evening classes are scheduled Fall and Spring Semester, as well as Summer Term. All evening classes are sponsored by the academic departments of the College and carry full academic credit.

The evening offering of classes serves a diverse population of students from the community. Traditional students wanting to accelerate their program make up a portion of the students taking evening classes but by far the greatest number of students enrolling in evening classes are non-traditional, part time students. To a large degree these students look to the evening offering of classes as their sole means of pursuing their educational goals.

Students may complete their requirements for a degree in the evening in various subject areas. The large selection of general education classes that are available after 5:00 PM allow students to schedule their classes around their busy personal lives. Many different programs are available to students interested in earning a degree, increasing the job skills necessary for career advancement, or for personal enrichment.

Many student services are available during evening hours on the Orem campus: the Library, Classroom Testing Center, College Bookstore, Computer Labs, Campus Connection, Food Services, and many more.

Evening School courses are listed each semester in the regular UVSC class schedule.

Students register for evening classes through the central UVSC Registration Office, by registering in person, over the phone, or by using on-line registration over the Internet. Students are strongly encouraged to speak to an Academic Advisor (801-863-8425) before registering.

DRIVER EDUCATION

Director: Robert G. Burns
Office: University Mall Center
Telephone: 801-863-7322
Web-Site: www.uvsc.edu/conted

The School of Continuing and Adult Education offers a 30-hour intensive adult Driver Education course that emphasizes safe driving practices, understanding the Utah Traffic Code, proper attitude, courtesy, and concern for human life. This course is available not only in a live classroom setting but also on the Internet.

The internet based portion of this course covers only the classroom instruction. The driving portion of this course will be done in a vehicle with a licensed deiver education instructor. The course consists of:

- Accessing the course on the internet
- Completing 9 lessons online
- Viewing 9 CDs containing lesson videos
- Passing 18 quizzes online at 90% or above
- Passing the 100 question Practice Exam online at 80% or above
- Passing the 100 question Final Exam online at 80% or above

The live Driver Education classes are open entry and students may begin the course each week night. Vehicle sessions are scheduled with each individual student and should be completed within a month. The course consists of:

- 18 classroom hours (nine 2 hour sessions)
- 6 driving hours
- 6 observation hours

Students must successfully complete all of the classroom sessions and driving/observation sessions.

Each student must be at least 15 years and 9 months of age, have verbal and written expertise in the English language, be able to read and understand highway signs, and be able to understand verbal directions in English.

Registration is completed online at: www.uvsc.edu/disted/php/drivers_ed/

UNIVERSITY MALL EDUCATION CENTER

Director: Robert G. Burns
Coordinator:
Location: University Mall, Orem, Ut
Telephone: 801-863-7322
E-mail: eveweek@uvsc.edu
Web-Site: www.uvsc.edu/conted

The UVSC University Mall Center is a multi-functional facility, consisting of 4 classrooms and a computer lab. The Center is home to a UVSC Information Center; UVSC credit courses; UVSC Community Education non-credit courses; and a seminar/workshop facility.

The UVSC Information Center has admission applications, college catalogs, class schedules, and also general information on UVSC courses, programs, etc.

The UVSC University Mall Education Center serves more than 1100 students and offers over 50 academic credit courses. Students taking classes at the Center can fill their UVSC General Studies requirements and complete course requirements for the Individualized Associate Degree. Classes are available during the day and evening hours. *Contact the Center for a free listing of credit courses at 801-863-7322.

UVSC Adult and Community Education offers a wide variety of non-credit classes to the community at the Center. Classes, available during the day and evening hours, offer general education, vocational, and recreational opportunities. Contact the UVSC Adult and Community Education office for a free listing of non-credit classes at 801-863-8012.

The Seminar/Workshop Facility within the Center has limited facilities available day and evening times. Facilities including classrooms holding 30 people, and a state of the art 24 station computer lab are available to the community, and business and industry organizations. Contact the Center at 801-863-7322 if you are interested in scheduling the facilities.

*University Mall classes are listed each semester in a separate University Mall Center class schedule which can be obtained from the University Mall Center. (Courses are also listed in the regular UVSC class schedule and online at www.uvsc.edu/schedule.)

WEEKEND COLLEGE

"Saturday Morning on Campus"

Director: Robert G. Burns
Coordinator: John P. Macfarlane
Coordinator: E. Linda Moore
Office: WB 101d
Telephone: 801-863-8449
E-mail: eveweek@uvsc.edu
Web-Site: www.uvsc.edu/conted.

Over 1000 students are enrolled each Fall and Spring Semester with the Weekend College at UVSC in 50+ credit classes. Weekend College works closely with each academic department to ensure that the needs of weekend students are being addressed.

All weekend classes are sponsored by the academic departments of the College and carry full academic credit.

Weekend College concentrates on offering a large selection of general education courses, allowing students to complete their general education and course requirements for the Individualized Associate Degree by attending

classes on Saturday. *"Saturday Morning on Campus"* enables students to actively pursue a college degree while working during the week. Students can also accelerate their college schedule by taking two classes on Saturdays.

The Weekend College is characterized by smaller classes, quiet surroundings, excellent teachers, free parking, and personal interaction among instructors and students.

Many student services are available on Saturdays: the Library, Classroom Testing Center, College Bookstore, Computer Labs, Campus Connection, Food Services, and the Weekend College Office.

Weekend classes are listed each semester in a separate Weekend College Class Schedule which can be obtained from WB 101d. (Weekend courses are also listed in the regular UVSC class schedule and online at www.uvsc.edu/schedule.)

Weekend students register for Saturday classes through the main UVSC Registration Office, by registering in person, over the phone, or by using on-line registration over the Internet. Students are strongly encouraged to speak to an Academic Advisor (801-863-8425) before registering.

OFF-CAMPUS EDUCATION CENTERS

Director: Robert G. Burns
Coordinator: Ruth Gowans
Office: WB 101d
Telephone: 863-6216
E-mail: eveweek@uvsc.edu
Web-Site: www.uvsc.edu/conted

The School of Continuing and Adult Education directs and facilitates the delivery of academic credit courses at off-campus locations. Off-Campus Education sites provide important benefits to students: flexibility through convenient locations; evening courses; easy access and parking; generally smaller classes; and a mission to meet the needs of a diverse population (traditional students or returning adults seeking degrees, new skills, or personal enrichment).

A goal of the School of Continuing and Adult Education is to make education available and closer to where people work and live. Academic credit courses, as well as skill and enrichment classes, help to fulfill that mission. Courses are taught to almost 1000 students each semester by UVSC faculty on site or through Distance Education (interactive). Students can complete their UVSC General Education Studies requirements and complete course requirements for the Individualized Associate Degree at these sites.

Academic credit courses for each site are listed in the regular UVSC Class Schedule as well as separate North Valley and Spanish Fork Class Schedules and online at www.uvsc.edu/schedule.

Students can register for off-campus courses through the main UVSC Registration Office, by registering in person, over the phone, or by using on-line registration over the Internet.

Presently there are two off-campus Centers, located at: North Valley (Lehi High School) and Spanish Fork High School.

NORTH VALLEY:

Lehi High School
180 North 500 East
Lehi, Utah

SPANISH FORK:

Spanish Fork High School
99 North 300 West
Spanish Fork, Utah

These centers offer:

- instructor-led courses on-site
- over 20 live and interactive evening courses at each Center
- 1000 & 2000 level UVSC credit courses
- UVSC General Education core and distribution courses

EQUITY IN EDUCATION: TRAINING AND RESOURCE CENTER

Director: Jenny L. Chamberlain
Office: FA 701
Orem, UT 84058
Telephone: 801-863-8498
website: www.uvsc.edu/conted/equity

Mission Statement: The Equity in Opportunity Training and Resource Center was established to 1) promote inclusion, tolerance and respect for diversity in Utah classrooms, work environments, and communities and 2) assist Utah's workforce and future workforce in becoming economically self-sufficient through knowledge of opportunities and positive decision-making. The Equity Center does not discriminate on the basis of race, color, national origin, age, sex or disability.

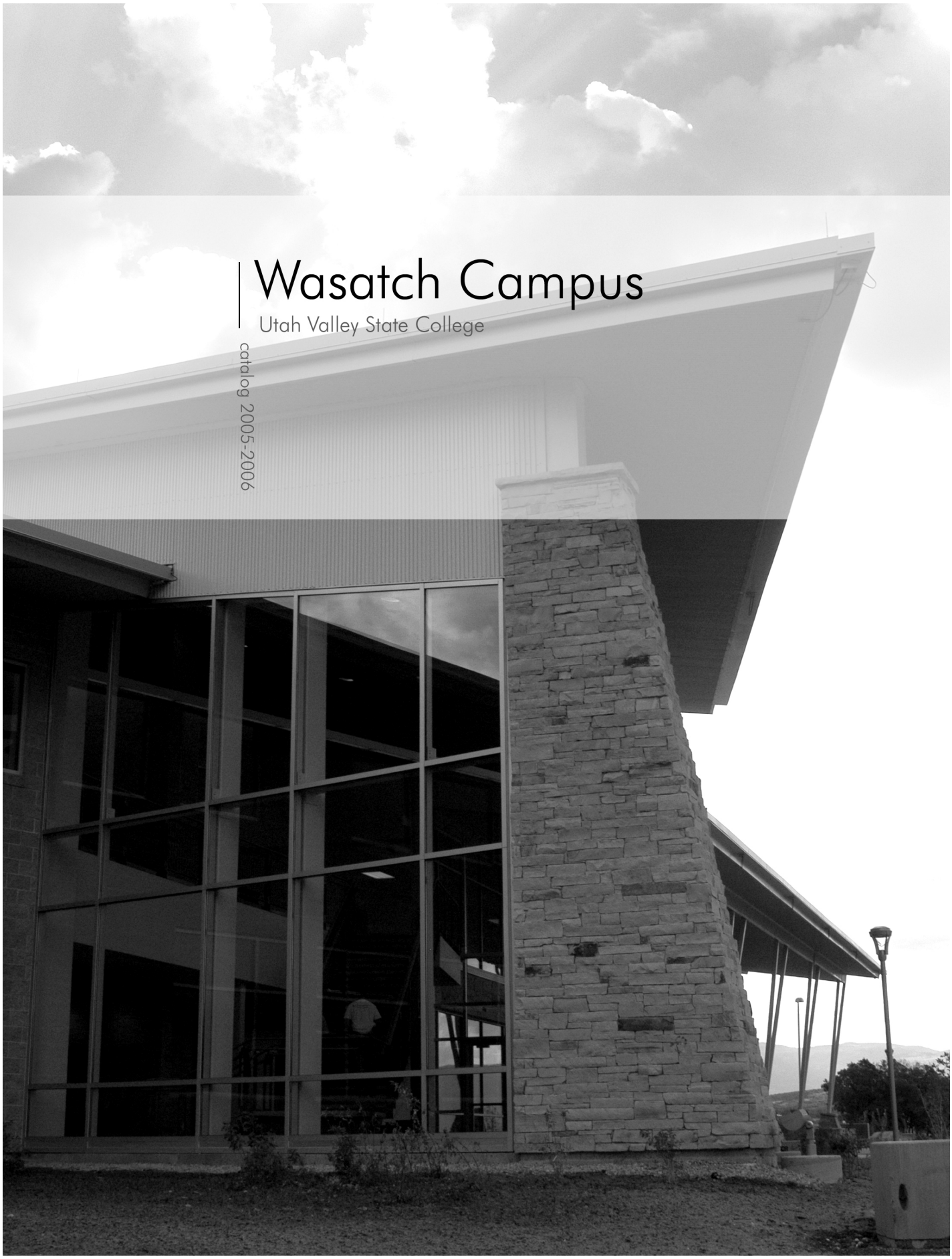
The Equity Center serves as a technical assistance, training and resource center for the community, secondary school districts and post-secondary schools in Utah. The Equity Center offers nationally recognized MECCA (Making Equity Count for Classroom Achievement) workshops and training materials covering a wide range of topics impacting issues in education and employment. The topics covered include: 2) fairness does not mean sameness–focusing on evaluating and shifting paradigms to recognize and address personal biases, 2) bias as a pattern hurts–builds empathy while identifying unconscious biases, 3) classroom teacher/student interaction–identifies interaction patterns and evaluates classroom practices while identifying essential skills for the future workforce, 4) equity and language-analyzes language and its impact on individuals and attitudes, 5) communication and humor–illustrates effective methods of communicating and working through conflict, 6) achievement issues–helping all students to learn and ask their own questions, 7) critical thinking and integration–encourages the development of higher-order thinking and illustrates connections, 8) media and stereotyping–examines the impacts of media messages on students and provides skills to critically analyze the media, 9) cultural diversity–examines the origins of prejudice and builds understanding to enable individuals to function effectively with others different from themselves, 10) preparation for the future, 11) sexual harassment, bullying, and other violence issues–presents strategies to prevent and address these issues and 12) partnership and working together–analyzes common barriers and models skills to encourage cooperation among students and co-workers.

The Equity Center also houses a free resource library available to the public. The resources include videos, a collection of books, newsletters, posters, brochures and hand-outs dealing with a variety of issues impacting and developing an understanding of equity concerns (as outlined in the training topics.)

Wasatch Campus

Utah Valley State College

catalog 2005-2006



WASATCH CAMPUS

3111 North College Way – Highway 40
Heber City, Utah 84032

Assistant Vice President, Dean School of Continuing Education: Pamela J. Gardner
Office: WC 209b
801-863-6602

Dean Wasatch Campus: JD Davidson
Office: WC 209d
801-863-6600

Student services and program information:

Academic Advisor: Katie Young
Office: WC 210
801-863-6618
435-654-6482

Cashier, Admissions and Registration Officer: Caryl Miles
Office: WC 131
801-863-6607
435-654-6482

Utah Valley State College offers a full service campus located in Heber City, approximately 30 miles from the main campus in Orem.

Here, at the new 75,000 sq foot facility, classes remain small and obtainable and are taught by highly qualified instructors.

General Education classes, essential to meeting the general education requirements for an Associate in Arts or Science degree, are offered each semester. Both day and evening classes are available.

All classes are accredited by Northwest Accreditation and transfer to other colleges and universities within the state of Utah, and credits should be accepted by other accredited institutions. Complete information about the classes for the current semester is available online at the website www.uvsc.edu.

DEGREE PROGRAMS

The Wasatch Campus offers two-year degrees in both Associate in Arts and Associate in Science. Pre-requisite classes for entrance into other programs are also offered.

Completion of the Utah Valley State College general education requirements will fulfill the general education requirements at all colleges and universities within the Utah System of Higher Education.

An Associate Degree is a minimum of 60 hours, and the candidate must show satisfactory completion of appropriate program requirements.

Graduation requirements for the Associate in Science/Arts Degree are:

- Completion of a minimum of 60 credits;
- Overall GPA of 2.0 (C) or above;
- Residency hours - minimum of 20 credit hours earned through course attendance at UVSC;
- Completion of general education requirements;
- Completion of specific (major) requirements.

Starting fall semester 2005, the Wasatch Campus will offer a bachelor degree in Elementary Education. Students for the first cohort have been admitted to the program and will be graduating in spring 2007. Pre-professional courses for admission into the Elementary Education Program will be offered at the Wasatch Campus beginning fall semester. Students interested in the degree should be taking preparatory classes for admission into future cohorts.

Fall semester 2006 a nursing baccalaureate degree cohort will be started at the campus. Interested students need to be preparing themselves for admission.

STUDENT SERVICES

The following student services are available:

- Academic and financial aid advisement
- Admissions, registration and cashiering services
- Testing and assessment services
- Complete full-service computer labs equipped with internet access
- Bookstore
- Library
- Distance Education

catalog 2005-2006

MOUNTAINLAND APPLIED TECHNOLOGY COLLEGE

MATC Student Services
801-863-MATC (6282)
www.MountainlandATC.org
Robert O. Brems, President

MATC Orem Campus
987 S Geneva Road
Orem, UT 84058

MATC American Fork Campus
759 E Pacific Drive
American Fork, UT 84003

MATC Nebo Learning Center
579 S Main Street
Springville, UT 84663

MATC Wasatch Campus
3111 N College Way
Heber, UT 84032
MATC Student Services

At Mountainland Applied Technology College (MATC), a student will receive the quality hands-on technical training necessary to compete in the market place of today and tomorrow. Course work is designed to teach necessary entry level and upgrade skills required by local businesses. This training is done in the shortest time possible so the student will be job-ready and working in one of many technical fields in a matter of weeks or months.

As a regional campus of the Utah College of Applied Technology, the MATC offers competency-based Associate of Applied Technology (AAT) Degrees in Information Technology and Medical Assistant. Many programs also offer competency-based UCAT Certificates of Completion or MATC Certificates of Proficiency.

The MATC delivers training at various sites across the Mountainland Region. Students have the opportunity to train at the closest MATC location: American Fork, Heber, Orem, Park City, or Springville.

Through our relationship with the business community, we are able to partner in the development of training programs designed to specifically meet industry needs. Through the guidance of business and industry advisory committees, MATC's programs continually improve to offer up-to-date training. Programs producing much demanded skills make MATC training more valuable as any individual faces the challenge of moving into the work force. MATC's training prepares the student for personal and financial success in a chosen career

THE FOLLOWING SERVICES ARE AVAILABLE:

MATC Testing Center:

To improve basic skills in reading, math, language and keyboarding, students may begin by taking a test that will indicate the appropriate placement level to begin in the Mountainland Regional Learning Center. Students may test prior to enrolling for training at the MATC to determine if math or reading skills need strengthening. Personality and interest tests are available here to assist in career planning. Learning styles tests and study skills assistance also are available.

The MATC Testing Center is an authorized Prometric and VUE (Virtual University Enterprises) test site. The MATC administers information technology certification tests such as Novell, Microsoft, CompTIA and Linux. Other certification testing is also available. Call 801-863-MATC (6282) for information.

CHAMP:

(For high school students only.) CHAMP (Center for Higher Achievement, Motivation, and Productivity) helps disadvantaged at-risk vocational students become more employable. To qualify for the program students must be in high school, be enrolled in a vocational class, and be economically or academically disadvantaged.

The program provides flexible entry and exit, enabling students to be referred throughout the school year. Participants receive individualized instruction on a regular basis in math, English, and reading. Students are also referred from vocational classes for short-term help with a specific theory or assignment. Students may also receive assistance in clarifying vocational goals, developing pre-employment skills (job search information, completing application forms, preparing for interviews, communication skills, etc.) ways of improving self-esteem and human relations skills.

Mountainland Regional Learning Center:

The newly-upgraded Learning Center, a 20 station computer-interactive self-paced learning program, is designed to upgrade basic English, reading, and math skills and to help students with a high school diploma or GED. Students may also work here to prepare for Math 1010, English 1010, and other classes at UVSC or MATC. ESL (English as a second or other language) is also offered through MRLC. Counselors and instructors are on site. The MRLC is open to anyone 16 years and older Monday-Thursday from 10AM - 8PM and Friday from 10AM - 4PM. For more information call 801-863-7620.

The following programs are available:

Industry Upgrade Training:

Worker retraining and skills upgrade is part of every strategic business plan today. MATC partners with many Mountainland Region employers to provide flexible seminars, workshops and courses delivered during regular work hours, evenings and weekends.

Job Preparation Training:

In today's job market, technical skills are critical to both new and experienced workers. MATC's short-term, noncredit, competency-based training is important in preparing for competitive jobs in the Mountainland Region communities.

High School Programs:

MATC Programs are available to high school students and offer high school credit. Tuition for MATC programs is free for high school students and payment is required only for program fees, books, and materials. High school students enroll for MATC programs through their high school counselors.

English as a Second Language:

This program focuses on basic conversational skills, terms, phrases, and pronunciation. Students will also become proficient in the English communications skills of listening, speaking, writing and reading. Intermediate/Advanced and Beginning courses are available

MOUNTAINLAND APPLIED TECHNOLOGY COLLEGE CERTIFICATE AND DEGREE PROGRAMS

AUTOMOTIVE TECHNICIAN PROGRAMS:

(See Transportation Programs)

Advanced Emissions and Diagnostics:

This course is designed to help an auto technician understand the causes of emission failures and the correct procedures to make proper repairs, with an emphasis on newer technology, fuel injection, and emission controls (loaded mode testing and OBD II). Training includes lecture, discussions, and hands-on exercises.

ASE (AUTOMOTIVE SERVICE EXCELLENCE) CERTIFICATION PROGRAM:

Each class is specially designed to provide focused preparation for a specific ASE test. Each class will include a review of the subject, a sample test, answers, and analysis of the test. The following test preparation classes are offered: Engine Repair; Manual Drive Train

and Axles; Suspension and Steering; Brakes; Electrical/Electronic Systems; Heating and Air Conditioning; Parts Specialist; Engine Performance; and Automatic Transmission/ Transaxle.

Automotive Technology:
Several automotive courses are available including: Auto Technology Fundamentals, Brakes, Engine Repair, Electrical Systems, Engine Performance, Manual Drive Train, Automatic Transmission, Suspension and Steering. There is also an open lab for the students to practice the skills learned.

Auto Collision Repair:
(For high school students only.) Learn to repair and refinish damaged vehicles. Skills learned include: how to prepare metal surfaces for painting, analyzing minor damage and applying metal working techniques, use and maintenance of shop paint and spray equipment, blending, tinting, detailing and much more. (UVSC Concurrent Enrollment available.)

Diesel Mechanics:
(For high school students only.) The class covers basic operating principles and technical information. Diesel engine rebuilding, cooling systems, lubricating systems, induction and exhaust systems will be focuses of the class. The class also provides theory and lab experiences on diesel engines. The student will study PC computers for managing shop information, work orders and reports. The curriculum also provides for the student to learn theories of operation, and troubleshooting -repair skills in automotive electrical systems. (UVSC Concurrent Enrollment available.)

Vehicle Safety Inspection:
Course is designed to prepare trainees for Vehicle Inspection Certification from the Utah Department of Safety. Lecture and laboratory cover registration and insurance, tires and wheels, steering and suspension, altered vehicles and trailers, brakes, vehicle glazing, lighting and electrical systems, frame and body, and exhaust and fuel systems. Courses are available for both light and heavy vehicle certification.

BUSINESS PROGRAMS:

(See also Computer Application Programs, Office/Clerical Programs, and Computer Technology and Certification Programs)

Accounting Levels I, II, and III
Three levels of spreadsheet and automated systems training teach the accounting cycles for sole proprietorship, partnerships and corporations. These courses include ledgers, journals, financial reports, etc.

APICS (Resource Management) Certifications:
The APICS program is designed for professional development and/or preparation for designation as Certified in Production and Inventory Management (CPIM) or Certified in Integrated Resource Management (CIRM). Each of 10 separate courses is taught three hours per week for 10 weeks. APICS is a non-profit educational organization respected throughout the world for its education and professional certification programs, and is recognized globally as the source of knowledge and expertise for manufacturing and service industries across the entire supply chain in such areas as materials management, information services, purchasing and quality.

Business Technology:
Partnering with the seven regional school districts, this MATC program will prepare students for a career in business. Courses include word processing, spreadsheet and database applications, office procedures, keyboarding, machine transcription, business communications, accounting procedures, and records management.

Human Resource Management:
The roles and responsibilities of Human Resource (HR) professionals are growing dramatically in corporate, government, educational, and other institutions. To keep pace in this changing field, professional training is essential. Those entering or practicing in the field must be informed about the latest in management practices, recruiting, training, employee relations, workplace regulations, and other developments.

This intensive program is based on the Mathis and Jackson text which also reflects the body of knowledge tested by the Human Resource Certification Institute (HRCI). In 44 hours of classroom studies, both new and experienced professionals will have the opportunity to learn what they need to enhance HR management skills and also prepare for certification as a Professional in Human Resources (PHR) or Senior Professional in Human Resources (SPHR).

ISM (Purchasing and Supply Management) Certifications:
These seminars provide preparation for successfully passing the new certification exams sponsored by the Institute for Supply Management (ISM) in obtaining professional designation as a Certified Purchasing Manager (C.P.M.) and/or an Accredited Purchasing Practitioner (A.P.P.). Four 18 hour modules/ courses include the following: Purchasing Process; Supply Environment; Value Enhancement Strategies; and Management. This program is also suitable for those desiring entry into the purchasing or supply management profession.

QuickBooks Pro:
This course is designed for the business owner or bookkeeper who wishes to track financial records with greater ease and accuracy. The basics of inflows, outflows, inventory control, account balances, employee records, job costing and customized financial reports are discussed.

Computer Applications Programs:
(See Computer Graphics and Multimedia Design Programs and Business Programs)

Computer Literacy:
This course was designed with the beginning computer user in mind. It instructs students in how computers work, what is needed to get started, and gives hands-on experience with IBM compatible computers. The course also introduces a variety of software applications including word processing, spreadsheets, database, Windows XP, sending and receiving email, using the internet, and more. This training will provide basic information to prepare the student for training in other computer application areas.

Microsoft Access:
Access is an application which uses tables, forms and reports to help define, sort, manage and view information in the database.

Microsoft Excel:
Excel is a powerful spreadsheet program that can be used to efficiently store and work with lists of data, calculate numbers and create reports and charts.

Microsoft Outlook:
Microsoft Outlook is an integrated electronic mail, calendar and task management program that can be used to efficiently schedule appointments and tasks, record information about personal and business contacts, and organize files.

Microsoft PowerPoint:
PowerPoint is the world's leading presentation-making program. It takes the text and numbers that have been collected and hands back slides and charts with the professional polish demanded by today's sophisticated audiences.

Microsoft Word:
Word is a powerful word processing program that can be used to efficiently create and modify many kinds of documents.

COMPUTER GRAPHICS AND MULTIMEDIA DESIGN PROGRAMS:

Adobe Illustrator:
Adobe Illustrator combines precise control with powerful desktop tools. The student will learn how to create flawless designs and technical diagrams for use in desktop publishing, presentations, and multimedia productions. This course provides the education for marketable graphic design skills and portfolio building.

Adobe InDesign:
Explore the principles of typography and layout design using Adobe InDesign, the choice among the world's leading designers, editors,

and publishers. The student will learn to enter, edit, manipulate text, scan, import, place graphics and photographs and work seamlessly with other Adobe software. Creation of business cards, brochures, catalogs, newsletters, booklets, and corporate identity systems are also taught in this course.

Adobe Photoshop:
The student will learn to create and manipulate photographs, digital images, Internet images and clip-art using Adobe Photoshop, the industry standard software for image editing. Explore scanning photographs and graphics, digital cameras, special effects and Photo CDs as part of the curriculum. Also create incredible graphic designs and stunning images for advertisements, business publications and personal portfolios.

Digital Video Production:
The curriculum for this course includes the teaching of production of digital video projects for DVDs, videotapes, the Internet, and multimedia. It uses the industry-standard software Adobe Premiere and Final Cut Pro. Students will learn to capture video and sound from miniDV, tapes, CDs and keyboards. Students will assemble video clips, animations, still images, titles, and audio tracks with amazing transitions and effects using Motion, LiveType, and Soundtrack. The curriculum also covers exporting finished videos to DVD, VHS, and to the Web as well as techniques in using digital video camcorders and other equipment.

Macromedia Director:
Macromedia Director is the standard authoring tool for multimedia developers and is used in this course to teach students to build professional-quality multimedia titles for deployment on CD-ROM or the web. The curriculum provides hands-on instruction in designing interface elements such as buttons and background images, then combining interactive scripting with video, animations, bitmapped, vector and text objects to produce games and computer-based learning titles.

Multimedia I - Design & Development:
Create stunning images and presentations with leading graphics software including: Quark Xpress, Adobe Photoshop, Adobe Illustrator and Corel Bryce. Explore photo enhancement, computer illustration, 3D modeling, animation, video and multimedia authoring. Learn to scan, retouch, composite and enhance images, draw vector illustrations and diagrams, layout corporate documents such as business cards, stationery, brochures and newsletters and much more.

Multimedia II - Production:
The student will focus on developing professional level design and multimedia production skills using examples and models from industry. The use of Adobe Photoshop, Adobe Illustrator, 3D Studio Max, Macromedia Flash, Adobe Premiere, Adobe After Effects and Macromedia Director software is included to create a series of projects for actual business clients that will prepare students for full-time employment. These projects, worked on as teams, include planning and designing Flash based websites; creating models, animations and programming for game development; and much more.

QuarkXPress:
Students will explore the principles of typography and layout design using QuarkXPress, the choice among the world's leading designers, editors and publishers. Students will also learn to enter, edit and manipulate text, scan, import, and place graphics and photographs, create business cards, brochures, catalogs, newsletters, booklets and corporate identity systems.

Web Page Design with Macromedia Studio:
This course teaches the fundamentals of effective web page design using the popular suite of software from Macromedia. Using Dreamweaver the student will learn to assemble Web pages that use the latest features of html without requiring years of programming experience. Create data tables, graphics, text and layout styles, interactivity, links to other sites, templates, multiple layers, and frames. The student will also learn principles of effective web design that will catch and hold site visitors' attention. With Fireworks the student will learn to convert bitmapped and vector graphics into images that are optimized for the Web. With Flash the student will learn to add the latest capabilities in vector-based site animation and event scripting and design and activate a personal web site as part of the class.

HEALTHCARE PROGRAMS:

According to the U.S. Department of Labor, the medical field is one of the fastest growing career fields in the country.

Certified Nursing Assistant (CNA):
CNA training teaches the practical, emotional, and social skills needed to work as a Certified Nursing Assistant. First Aid and CPR certifications are included. Upon successful completion, students are prepared to pass the State Nursing Assistant Certification Exam.

Dental Assistant:
Dental Assistants are hired to perform chairside assisting skills, front office procedures, radiology techniques and commonly used dental material manipulations in a dental office. This course prepares students for work in the dental field through classroom lecture, lab work, and an externship in a general dental office as well as in specialty practice such as orthodontics, oral surgery, pediatric dentistry, periodontics or prosthodontics. Students also receive hands-on training in a dental clinic. This training includes up-to-date dentistry procedures, technical training in taking radiographs, the manipulation of dental materials, and front office skills and procedures.

Emergency Medical Technician:
This EMT Basic Course prepares students for a career in public service. It helps prepare for employment in Law Enforcement, Fire or Emergency Medicine, or teaches what to do when faced with a medical emergency. Training includes clinical and classroom hands-on training experiences. Topics include HAZMAT awareness, basic First Aid, patient assessment, triage multi-casualty, emergent and non-emergent patient move (with and without CNS injury), airway management, CPR, shock & bleeding control, and more. Students can become a key member of the EMS system.

Exercise Science/Physical Therapy Aide:
This course prepared students to work in the areas of physical therapy and athletic training. Students learn anatomy, medical terminology, First Aid/CPR, modalities, therapeutic exercise and taping techniques.

Medical Assistant:
Nationwide opportunities exist for trained Medical Assistants. Medical Assistants are hired to assist physicians in their offices and to perform duties such as insurance billing, basic lab procedures, physical exam assisting, injections, basic patient care, and more. Medical Assisting programs cover three basic fields of training: administrative, theory and laboratory. Subjects covered in these areas include patient administration, filing, accounts, insurance control, anatomy and physiology, diet and nutrition, pharmacology, hematology, urinalysis, injection techniques, CPR and more. Training includes classroom lectures, lab and an internship. An Associate of Applied Technology degree is offered in Medical Assisting. This is an open-entry open-exit program.

Medical Office Administrative Assistant (MOAA):
In MOAA, the student will be prepared to obtain employment as a receptionist or billing specialist in a physician's office or as a unit clerk, ward, clerk, medical records specialist or receptionist in a hospital among other positions in the health care community. Students learn medical terminology, transcription, scheduling appointments, telephone triage, accounts payable, accounts receivable, banking, insurance coding and billing, payroll, organizing medical records and filing, employment skills, resumes, law and ethics in the physician's office, collection procedures, and computer billing. Medical Office Administrative Assistant I prepares students to qualify for a Certificate of Proficiency. This is an open-entry open-exit course.

Medical Office Skills:
This course introduces the student to anatomy of the body as a whole and assists the student

in learning to read, write, spell, abbreviate and understand medical terminology used in the health care field. It teaches vocabulary as well as introduces the student to all systems of the body and how they function. There is an introduction to billing procedures for all major insurance companies, CPT coding and follow-up/problem solving regarding claim filing. This class is designed for students who are not working in the medical field and who have not already been exposed to CPT coding and insurance billings.

Phlebotomy:
This course prepares the student to pass both a hands-on and written test to receive Utah State Certification to be able to draw blood. Students learn the correct and most efficient means of drawing blood.

Veterinary Assistant:
This course prepares students to support veterinarians by providing assistance during animal examinations, treatment, monitoring, and administration. Students also learn to keep animal and health-related records and perform a wide range of practice-related duties. The course is excellent preparation for pre-veterinary or veterinary technology programs, and includes hands-on training in classroom and veterinary shelters.

Mountainland Applied Technology College has partnerships with private providers in the area to facilitate student access to the following healthcare programs (please contact 863-MATC (6282) about opportunities to access these programs through MATC):

Massage Therapy, Advanced:
The objective of this 30-week course is to train students to become highly skilled practitioners in both traditional massage therapy and the advanced therapies practiced in the cranial sacral arena. The course focuses on treating infant, adolescent, adult and elderly medical disorders. Students gain an understanding of how the nervous system communicates with the body - whether visceral, skeletal, muscular, lymphatic, or within the cranial system. Therapists must pass the Utah State Massage Law & Rule Examination to practice in the State of Utah. The National Certification Examination for Therapeutic Massage & Bodywork is also available and strongly recommended.

Ophthalmic Assistant:
This 30-week course trains students to assist the optometrist or ophthalmologist in his/her private practice. Course includes Basic Anatomy, Physiology, and Optics; Front Office Procedures; Soft Contact Lenses; Rigid Gas Permeable Contact Lenses; Eye Glasses; Eye Injuries; Eye Surgeries; The Partially Sighted; Low Vision; basic word processing and computer skills; and an externship of 240 hours. Students will also be prepared to take the certification examinations of the American Board of Opticians and become certified opticians. (CPR classes and computer labs will be held outside the scheduled hours.)

Pharmacy Technician:
This program prepares the student to become licensed and employed as a Pharmacy Technician. Licensed Pharmacy Technicians assist the pharmacist in filling prescriptions, filing insurances, stocking shelves, and helping patients find products they need. Pharmacy Technicians can be employed in small private pharmacies, chain pharmacies, or in hospital pharmacies. The Pharmacy Technician is an integral component of the health care team. The program consists of 30 weeks of classroom and laboratory training followed by an externship of 240 hours for a total of 36 weeks. The program is approved through the Utah State Department of Commerce Licensing Division.

Surgical Technologist:
The goal of this program is to train surgical technologists to assist in operations under the supervision of surgeons, registered nurses, or other surgical personnel. Before surgery the surgical technologist helps to set up and prepare for surgery by checking equipment, instrumentation and needed supplies. Surgical technologists prepare, transport and position patients, check vital signs and assist surgical teams with gowning and gloving. During surgery the technologists pass instruments and other sterile supplies to surgeons. They may hold retractors, cut sutures, care for tissue specimens taken from the patient and help apply dressings. The course includes 600 hours of in-class tutorials and 600 hours clinical on-site training.

INDUSTRY AND VOCATIONAL PROGRAMS:

Biotechnology:
The Biotechnology course is designed to create an awareness of career possibilities in the biotechnology field. The student will learn about genetic engineering, cloning, recombinant DNA, and recombinant protein production.

Chef Prep:
Chef Prep provides students with professional cookery skills in preparation for employment or further development in culinary arts or hospitality management. This course also introduces and trains the student for opportunities in the food service industry, in addition to learning the art of performing quality food preparation. This course also offers the opportunity to test out of eight college credits in the UVSC Culinary Arts Program, or three college credits in the UVSC Hospitality Management Program.

Cosmetology:
This 2000-hour program prepares students to become licensed cosmetologists in the State of Utah. Students will learn several different techniques of hair cutting, styling, coloring, perms, manicures and basic esthetics.

Introduction to Capsule Filling Technology:
Designed by and for the dietary supplement industry, this training focuses on the evolution of capsules and filling, proper identification of universal filling machine parts, safe setup and operation of high speed filling machines, troubleshooting the entire filling operation, and sanitation and cleaning the machine. Offered as a certified, short-term intensive course, the student will experience demonstration techniques, student-teacher interaction and individual hands-on experience. Seasoned industry professionals and MATC instructors will facilitate individual use of a state-of-the-art high speed filling machine.

Job Seeking Skills and Workplace Relations:
This course helps students develop their career by preparing them to successfully apply and interview for employment. They develop essential human relation skills needed to maintain gainful and satisfying employment. This course also includes familiarization with problematic areas found in the workforce including solving problems, understanding relationships and diversity, increasing personal ethics, and developing strong personal, interpersonal and human relation skills.

Public Safety Dispatching (Introduction):
This course is designed as an introduction to a career in dispatching. The course includes classroom lecture and practical exercises. Training covers telephone, police and radio procedures, legal aspects of dispatching, communication equipment, dispatch technology, crime classification, and public safety. Students will be exposed to the skills and knowledge necessary to apply for employment as dispatchers in law enforcement agencies.

INFORMATION TECHNOLOGY AND CERTIFICATION PROGRAMS:

A+ Certification-Computer Hardware and Operating Systems:
This is a complete training program designed not only to prepare the student for the computer repair industries A+ Certification, but also to provide the student with the fundamental skills and knowledge base required for a career in this rapidly changing industry. A+ Certification offers an industry recognized and valued credential that clearly demonstrates to a prospective employer or client the student's expertise in hardware and software support. A+ Certified technicians have enhanced job opportunities, increased opportunities for advancement, and high customer confidence. (Prerequisites: Basic computer literacy skills. Must have experience in DOS and in the Windows environment.)

Advanced Server Administration:
This course teaches students how to configure common server services on a Linux server. These services include NFS, NIS, DNS, DHCP, ftp, and the Apache web server. Students will also be taught how to configure the Samba service to act as a file and print server and a Windows NT Domain controller. Kernel compiling, package management, remote administration, and file system management are also taught. Upon completion of the course, the student will be able to install and administer a Linux server in a small- to medium-sized business environment.

Fundamentals of Linux+:
Linux+ certification provides technicians with an industry recognized and valued credential that can help them get a foot in the door with a prospective employer or client. CompTIA, the Computing Technology Industry Association, has introduced the Linux+ certification to measure foundation-level linux operating system proficiency as a reliable indicator of employee success for both professionals and employers. The Linux+ certification measures vendor-neutral Linux knowledge and skills for an individual with at least six months practical experience. Linux+ certification is for any individual interested in demonstrating fundamental Linux knowledge and skills. CompTIA developed the Linux+ certification, which serves as a stepping-stone towards higher level Linux certification tracks from LPI and Sair, with the expertise of industry leaders such as Bradford Learning, Caldera, Compaq, ElementK, Guru Labs, Hewlett-Packard, IBM, Prosofttraining.com, Intel, Linux- Care, and SuSE.

Information Technology:
Information Technology is an open-entry open-exit course that allows students to begin any time during the year, proceed at their own pace, and finish when competencies are mastered. During the course the student will be prepared to take the industry-standard exams to be certified in CompTIA's A+, Network+, Security+, Server+, and Linux+ as well as Microsoft MCP, MCSA, MCSE, Novell's CNA, CNE and Cisco's CCNA. Students may also set up a program that will fulfill requirements to receive UCAT certifications and degrees. The skill sets acquired in this course will allow for employment in many of the Information Technology fields anywhere from entry-level to intermediate positions.

MCSA Windows:
Train for a career in network administration, upgrade networking skills, and prepare for certification exams through this course as a Microsoft Certified Systems Administrator in Windows. The MATC offers short-term, non-credit programs designed for individuals desiring skills in the operation and management of local area networks. The MCSA is a certification from Microsoft designed for the Information Technology professional who manages, supports, and troubleshoots the ongoing needs of Microsoft Windows server-based operating environments.

Networking Essentials:
Network+ certification provides technicians with an industry recognized and valued credential that can help them get a foot in the door with a prospective employer or client. The exam is targeted for technicians with 18 to 24 months of experience in the Information Technology industry or the A+ certification. Earning the Network+ certification means that the candidate possesses the knowledge needed to configure and install the TCP/IP client. This exam covers a wide range of vendor and product neutral networking technologies that can also serve as a prerequisite for vendor specific IT certifications.

Security Professional:
Security+ helps prepare candidates to successfully complete the Security+ certification exam for skills required of foundation-level security practitioners. Course participants receive instruction on general security concepts, communication security, infrastructure security, basics of cryptography, and operational / organizational security. (Prerequisites: CompTIA A+ and/or Network+ equivalent knowledge is strongly recommended).

OFFICE/CLERICAL PROGRAMS:

(See also Business Programs)

Basic Office Skills:
Course is designed to teach and upgrade skills in accounting, business correspondence, business English, typing, filing and 10-key operation. (Prerequisite: Type 25 WPM).

Data Entry:
MATC's basic data entry course prepares students for data-entry jobs. Using data entry pads on the electronic calculator as well as the computer keyboard, students learn 10-key functions, layout, fingering techniques and data-entry. Course is preparatory to taking the Department of Workforce Services 10-key test.

Keyboarding/Typing:
This introductory typing course is designed to teach and improve typing/keyboarding skills. Emphasis is on speed and accuracy through improved techniques and timed writings. The intermediate course is designed for beginning students familiar with the keyboard, but are not yet typing 25 WPM.

Speedbuilding:
Training is designed to increase typing speed and accuracy. The course includes a computerized keyboarding program that allows students to work at a self-paced rate with emphasis on the areas that most need improving.

Online Web-based Courses:
The MATC offers a broad range of Online web-based courses. These Online courses will allow students to acquire valuable new skills from the comfort and convenience of the home or office. Classes begin the 2nd Wednesday of each month and last six weeks. Each course has 12 lessons (2 per week) and requires approximately 2 hours per lesson. A Certificate of Completion is provided after successful completion of each course. A list of courses can be found at www.Mountainland-ATC.org.

TRANSPORTATION PROGRAMS:

(See also Automotive Programs)

Automobile Dealer Education Program:
State law requires all automobile dealers in Utah to attend education classes in order to become and remain certified as a dealer. MATC offers this program in partnership with the Motor Vehicle Enforcement Division of the Utah State Tax Commission. It is designed to provide the critical knowledge and skills relating to motor vehicle dealers as mandated by state law. Dealers receive in-depth information on motor vehicle laws and rules. Dealers (including owners, partners, corporate officers, bond indemnifiers and managers) starting out in the business must attend an 8-hour orientation course. After the initial certification, a representative of the dealership (recommended to be one of the dealership representatives) must attend a three-hour recertification course each year in order to renew the dealer's license. Both of these courses are available through MATC.

CDL 3rd Party Testing:
This training prepares individuals with the knowledge and expertise to administer the skills portion of the Commercial Drivers License (CDL) exam. Individuals who successfully complete the five-day/40-hour training program can then apply for authorization by the State of Utah to test and certify drivers in the pre-trip inspection / off-road skills maneuvering / road test portion of the CDL.

Commercial Truck Driver Program:
The growing demand for skillfully trained, ethical truck drivers is greater now than at any time in the past decade. In fact, there is a critical shortage of drug-free and accident-free drivers. Employment in professional driving may depend on the ability to meet employer requirements, such as DOT mandated drug screening and a satisfactory driving history. This three-week program prepares students for varying conditions such as road, weather, equipment, and traffic, pickup and delivery, hauling goods or materials, and loads that typically exceed 20 tons.

Flagging:
Individuals who successfully complete this

training receive Utah Department of Transportation certification to secure employment as Utah flaggers. Participants must be 18 years old. Training is offered at different locations and dates throughout the year.

Pilot/Escort Certification:
Individuals who successfully complete this training will receive Utah Department of Transportation Pilot/Escort certification. This eight-hour course includes an overview of the pilot car industry, state standards for vehicle and equipment, recommended safety and other equipment, communication, flagging, oversize loads, pre-escorting procedures and maneuvering techniques. Pre-registration is required. Pilot/Escort recertification is also available.

CUSTOMIZED TRAINING:

Vice President of Customized and Short-Term Training: Lionel Blau

Customized Training Rep: Randall Reeves

Customized Training Rep: Roger Rice

Customized Training Secretary: Charalene Whitehead

MATC Customized Training unites business and education in a training partnership to provide a skilled labor force which will promote economic growth. Customized training is developed and delivered to meet industry-specific requirements. Training may be delivered at the MATC or on the job site. Training programs may include technical and specialized courses such as computer software and hardware applications, forklift operation, OSHA compliance, ISO 9000, capsule filling technology, Total Quality Management, IV certification, and more. Soft skills training includes personal effectiveness, human resource functions, leadership/supervision, customer service, and English/Spanish as a second language.

Other customized training services available through this program include:

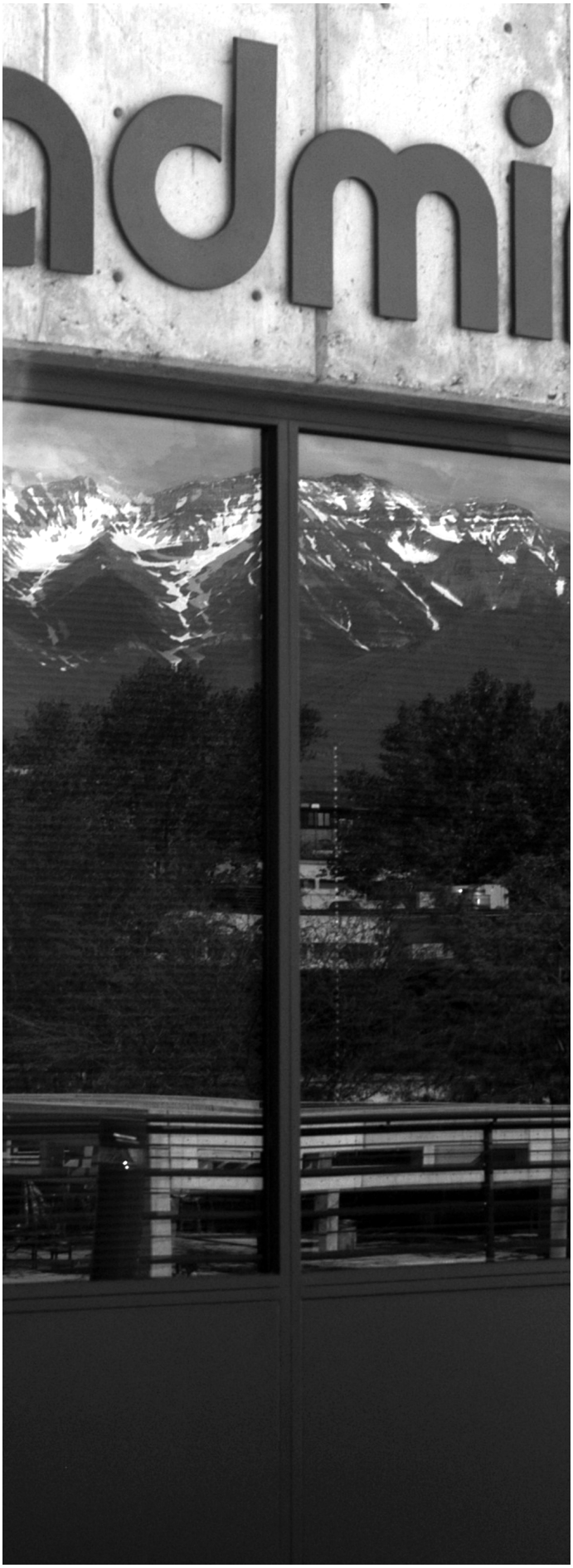
- Assessment/evaluation
- Pre-employment/post-employment training
- Skills upgrade training
- Curriculum development
- Train the trainer
- Workshops/seminars

Companies may qualify for state funds to offset costs associated with development and delivery of training through the MATC.

Reference

Utah Valley State College

catalog 2005-2006



Administration

GENERAL OFFICERS

President ..... William A. Sederburg

Assistant Attorney General ..... David C. Jones

Assistant to the President ..... Cameron K. Martin

Vice President, Academic Affairs ..... Bradley J. Cook

Vice President, Student Affairs and
Strategic Planning ..... Cory L. Duckworth

Vice President, Administration and External Affairs ..... Val L. Peterson

Vice President, Institutional Advancement and Marketing Ian K. Wilson

Director of Budgets ..... Linda L. Makin

Internal Auditor ..... Brent R. Turner

ACADEMIC AFFAIRS

Vice President ..... Bradley J. Cook

Associate Vice President, Curriculum and
Accreditation ..... J. Karl Worthington

Associate Vice President, Faculty Relations ..... Bruce D. Parker

Associate Vice President, Scholarship & Outreach ..... TBA

Assistant Vice President/CTE Director ..... Dee Martin

Dean, School of Business ..... James W. Fenton Jr.

Associate Dean, School of Business ..... Janice Gygi

Dean, School of Computing, Engineering
and Technology ..... Thomas McFarland

Associate Dean, School of Computing, Engineering
and Technology ..... Ernest Carey

Associate Dean, School of Computing, Engineering
and Technology ..... Dennis Fairclough

Associate Dean, School of Computing, Engineering
and Technology ..... Larry Marsing

Associate Dean, School of Computing, Engineering
and Technology ..... Gordon Stokes

Dean, School of Education ..... Briant J. Farnsworth

Dean, School of General Academics ..... Bonnie Henrie

Associate Dean, School of General Academics ..... K.D. Taylor

Dean, School of Humanities, Arts and
Social Sciences ..... William W. Cobb, Jr.

Associate Dean, School of Humanities, Arts and
Social Sciences ..... Kathie Debenham

Dean, School of Science and Health ..... Samuel Rushforth

Associate Dean, School of Science and Health ..... Bill Evenson

Associate Dean, School of Science and Health ..... Lori Barber

Dean, Wasatch Campus ..... J. D. Davidson

Dean, Continuing Education ..... Pamela Gardner

Director, Faculty Center for Teaching Excellence .. Jerry Christopherson

ADMINISTRATION AND EXTERNAL AFFAIRS

Vice President ..... Val L. Peterson

Associate Vice President, Facilities/Planning ..... Jim Michaelis

Associate Vice President,
Finance and Human Resources ..... Douglas E. Warner

Associate Vice President, Information Technology/CTO ..... Ray Walker

Assistant Vice President, Business Services/Controller ..... Mike Francis

Director, Parking Services and Transportation ..... Steve Jackson

Director, Risk Management ..... Joe Marrott

Director, Grounds ..... Jack Boswell

Director, Public Safety ..... Tracy Marrott

Director, Physical Plant ..... Robert Clark

Director, Space Management ..... Frank Young

Director, Accounting ..... Michael Jones

Director, Auxiliary Services ..... Kenneth Matthews

Director, Business Affairs ..... Bernell Hofheins

Director, Human Resources/Equity Officer ..... Nancy Bartlett

Director, Printing Services ..... David Scott

Director, Purchasing ..... Ryan Lindstrom

Director, McKay Events Center ..... Mark Hildebrand

Director, Infrastructure and Programming ..... Eddie Sorensen

Director, Special Projects and Security ..... Bryan Snow

Director, IT User Services ..... Brian Harward

Database Administrator ..... Tracy Adams

Director, Telephone Services ..... Tom Branam

Director, Center for Student Computing ..... David Tobler

Director, Web Development Services ..... Nathan Gerber

Director, Computer and Technician Help Desk ..... JoAnn Innes

Director, Administrative Programming ..... Dan Lukins

Director, Infrastructure Implementation and Management .. Nate Hene

IT Security Officer ..... Leroy Brown

Director, Automation & Integration ..... Mike Duffin

Director, Media Services ..... Travis Tasker

Director, Infrastructure Operations ..... Brett McKeachnie

Director, Administrative Computing ..... Joe Belnap

BUDGET OFFICE

Director of Budgets ..... Linda Makin

Senior Budget Analyst ..... Ellen Y. Sweat

INSTITUTIONAL ADVANCEMENT

Vice President ..... Ian Wilson

Assistant Vice President ..... Tom Rasmussen

Associate VP, International Affairs ..... Rusty Butler

Director, Alumni Relations ..... Jeri Allphin

Director, Annual Fund ..... Cristina Pianezzola

Associate Vice President, College Marketing &
Communications ..... Derek Hall

Director, Data Management ..... Bart Jacobs

Director, Studios & Engineering ..... Tom Nielson

Director, Stewardship and Donor Relations ..... Nancy Smith

Director, Major Gifts ..... Kathleen Bingham

Director, Planned Giving ..... Glenn Simmons

STUDENT AFFAIRS & STRATEGIC PLANNING

Vice President ..... Cory L. Duckworth

Associate Vice President, Student Services ..... Michelle Lundell

Director, Prospective Student Services ..... Jill Smith

Senior Director, Student Services/Banner ..... Shad Sorenson

Senior Director, Career and Academic Counseling ..... Paula Tibbitts

Multicultural Center ..... Gwen Anderson

Senior Director, Career and Student Employment ... Wayne Mangelson

Director, Financial Aid ..... Joanna McCormick

Senior Director, One Stop Shop ..... Liz Childs

Registrar ..... LuAnn Smith

Director, Enrollment Marketing ..... Michael Shapp

Director, Graduation/Transfer Services ..... Margaret Bellon

Director, Accessibility Services ..... Kimberly Beck

Director, Testing Services ..... Colleen Sorensen

Director, TRIO Support Services ..... Keith Jensen

Director, TRIO/Upward Bound/Talent Search ..... Maraia Weingarten

Assistant Vice President, Student Life, Dean of Students Bob Rasmussen

Director, Sorensen Student Center/Auxiliary Services ..... Ken Mathews

Director, Student Health Services ..... Bill Erb

Director, Student Leadership and Activities ..... Phil Clegg

Director, UV Leaders, Center for Student Excellence ..... Julie Bagley

Director, Experiential Learning and Student Media ..... Grant Flygare

Director, Dispute Resolution/Judicial Affairs..... Clay Chivers

Assistant Vice President of Strategic Planning,
Institutional Research, Institutional Effectiveness,
Partnerships and Student Services..... E. Mark Bezzant

Interim Director, Institutional Research .....Andrea Brown

Director, Student Services Grants..... Greg Jackson

Director, School, College and University Partnerships .....Liz Andrus

Director, Athletics.....Michael V. Jacobsen

Associate Athletic Director, External Operations.....D. J. Smith

Assistant Director, Athletics,
Senior Woman Administrator .....Megan Kennedy

Assistant Director, Athletics, Internal Operations ..... TBA

Assistant Director, Athletics, Marketing and Promotions ....Chris Brown

Faculty

Tenured and tenure-track faculty members are listed in alphabetical order. Date in parentheses indicates first year of full-time employment at UVSC.

A

ABBOTT, Scott (1999); *Director, Integrated Studies/Professor, Humanities and Philosophy;* B.A., German Literature; M.A., German Literature, Philosophy minor, Brigham Young University; Ph.D., German Literature, Princeton University.

ADAMS, David M. (1999); *Assistant Professor, Electrical Automation and Robotics Technology*; B.S. Mining Engineering, Virginia Polytechnic Institute and State University; professionally licensed Electrical Contractor, Building Inspector and Master Electrician.

ADAMS, Lynn L. (2000); *Instructor, Business Management*; B.S., Math-Science, Brigham Young University; MBA, Westminster College; Ph.D., (ABD) Organizational Leadership, University of Phoenix.

ALBRECHT-CRANE, Christa (2001); *Assistant Professor, English/Literature*; B.A., American Literary and Cultural History, Ludwig-Maximilians University; M.A., American Studies, Washington State University; Ph.D., Rhetoric and Technical Communication, Michigan Technological University.

ALLISON, Charles (2001); *Assistant Professor, Computing and Networking Sciences*. B.S., Mathematics/Portuguese; M.S., Mathematics/Statistics, Brigham Young University; M.S. (Ph.D. ABD), Applied Math/ Computer Science, University of Arizona.

ALLISON, Dennis (1997); *Professor, Mathematics*; B.S., Mathematics, B.A., History, M.S., Mathematics, University of Houston.

AMIN, Masood (1997); *Associate Professor, Pre-Engineering Science*; B.S.; M.S., Mechanical Engineering, Brigham Young University.

AMOSA, Milo (2001); *Lecturer, English/Literature*; B.A., English, Brigham Young University - Hawaii; M.A., English; M.A., History, Brigham Young University.

ANDERSON, Douglas D. (1978); *Department Chair/Professor, Art and Visual Communications*, B.A., Fine Arts; M.S., Industrial Education, Brigham Young University.

ANDERSON, Genan (2001); *Assistant Professor, Early Childhood Education*; B.S., Elementary Education and Child Development, Utah State University; M.S., Child Development, Utah State University; Ph.D., Marriage, Family and Human Development, Brigham Young University.

ANDERSON, Karin A. (1991); *Professor, English/Literature*; B.A., English, Utah State University; M.A., English, Brigham Young University; Ph.D., Literary Theory and Creative Writing, University of Utah.

ANDRIST, Kathryn (2001); *Assistant Professor, Mathematics*; B.S.; M.S.; Ph.D. Mathematics, Brigham Young University.

ARMSTRONG, Vaughn S. (2003); *Assistant Professor, Business Management*; B.S., Mathematics, Brigham Young University; J.D., J. Reuben Clark College of Law, Brigham Young University; Ph.D., Finance, Arizona State University.

ARRINGTON, James (1999); *Assistant Professor, Theatre and Film*; B.F.A., Theater, Utah State University; MA, Brigham Young University.

ASBELL, Scott R. (1994); *Lecturer, Ballroom Dance*.

B

BAADSGAARD, Lynn (2000); *Instructor, Welding*; B.S., Agricultural Education, Utah State University.

BACKUS, Ellen (2002); *Assistant Professor, Mathematics*; B.A., Math Education; M.A., Mathematics, Brigham Young University.

BAHR, Damon L. (1997); *Associate Professor, Elementary Education*; B.S., Elementary Education, Brigham Young University; M.Ed., Elementary Education, Utah State University; Ed.D., Curriculum & Instructional Science, Brigham Young University.

BAIRD, Deborah K. (1993); *Associate Professor, Business Management*; B.A., Business Accounting/Management (Marketing); M.B.A. (Economics Emphasis), Brigham Young University.

BAIRD, Kellan (1998); *Assistant Professor, Cabinetry and Architectural Woodwork*; B.S., Industrial Education, Brigham Young University.

BALDEN, John A. (1996); *Associate Professor, Accounting*; B.S., Accounting; M.Acc. (Federal Taxation emphasis), Brigham Young University; CPA.

BARBER, Lori (1996); *Associate Dean, School of Science and Health/ Associate Professor, Nursing*; B.S.; M.N., Nursing, University of Phoenix.

BARGERON, Brent (2002); *Department Chair/Professor, Physics*; B.S., Physics, Brigham Young University; M.S., Ph.D., Physics, University of Illinois-Urbana.

BARNES, James E. (1969); *Assistant Vice President/ATE Director*; B.S.I.E.; M.S., Industrial Education/Electronics, Utah State University.

BARTHEL, Brian R. (1998); *Associate Professor, Community Health*; B.S.; M.S., Health Science/Community Health, Brigham University; Ph.D., Health Education, Southern Illinois University.

BARTHOLOMEW, Kimberly W. (1994); *Associate Professor, Computer Information Technology Education*; B.S.; M.S., Computer Science, Brigham Young University.

BAYER, Virginia E. (2000); *Assistant Professor, Biology*; B.S. Biological Science; B.A., Classical Languages, University of California, Irvine; Ph.D., Medical Sciences,-Neuroscience, Cornell University Graduate School of Medical Science; D.V.M., Cornell University College of Veterinary Medicine.

BEAN, Ben (1990); *Professor, Accounting*; M.B.A., Accounting Emphasis; B.S., Business Management, University of Utah; CPA.

BEAN, Paul (1997); *Assistant Professor, Automotive Technology*; B.S., Industrial Education, Brigham Young University; Certified Lexus Instructor; ASE Master Certified; Hunter Certified.

BEARNSON, Barbara B. (1977); *Professor, Behavioral Sciences*; B.S., Human Development and Family Relations, Early Childhood Emphasis; B.S., Elementary Education; M.S., Family Science/Early Childhood, Brigham Young University.

BENDER, Melinda A. (1998); *Assistant Professor, Basic Composition/ English as a Second Language*; B.S., Speech Communication; MAIS, Communication and Human Development, Oregon State University.

BENIONI, Juanita (2002); *Assistant Professor, Elementary Education*; B.S., ESL Education, Church College of Hawaii; M.Ed., Curriculum and Instruction, Brigham Young University.

BENNETT, Lyn E. (1996); *Associate Professor, History and Political Science*; B.A., History; B.A., Anthropology; MSE Curriculum and Instruction; Ph.D., History, University of Kansas.

BENSON, Alvin K. (2001); *Professor, Physics*; B.S.; Ph.D., Physics, Brigham Young University

BENSON, Linda F. (1999); *Department Chair/Associate Professor*, Elementary Education/Secondary Education; B.S.; M.S., Education, Utah State University; Ed.D., Educational Specialist, Brigham Young University.

BENTLEY, Jan (1999); *Assistant Professor, Computer Information Technology Education*; B.S. Marketing and Distributive Education, Brigham Young University; M.S. Business Information Systems and Education, Utah State University.

BERGLUND, Emilie (2003); *Instructor, Developmental Mathematics*; B.S., Statistics, B.A.S., Math Education, University of Minnesota; M.S., Statistics, Montana State University.

BERRY, Gregory R. (2004); *Associate Professor, Business Management*; Bachelor of Education, M.B.A., Ph.D., Organizational Analysis, University of Alberta.

BIRCH, Brian D. (1999); *Department Chair/Associate Professor, Humanities and Philosophy*; B.S.; M.S., Philosophy, University of Utah; Ph.D., Philosophy of Religion, Claremont Graduate School.

BLACK, Katherine D. (2005); *Associate Professor, Accounting*; B.S. Accounting, Utah State University; M.Ac., Taxation, Utah State University; J.D., UC Davis School of Law; LL.M., Taxation, McGeorge School of Law.

BLACKHURST, Kelvyn A. (2003); *Instructor, Diesel Mechanics Technology*; AAS, Diesel and Heavy duty Mechanics, UVSC.

BLACKWELL Robert H. (1968); *Professor, Biology/Cooperative Education/ Community Health*; B.S.; M.S., Zoology, Brigham Young University.

BLUNDELL, Simon (2004); *Assistant Professor, Art and Visual Communications*; B.S. Photographic Imaging, M.F.A., Photography, University of Utah.

BOGGESS, Cris Dee (1999); *Instructor, Automotive/Diesel Technology*; Certificate, Auto Body Repair, Utah Technical College at Salt Lake.

BOHL, Dean (2001); *Assistant Professor, Diesel Technology*; A.A.S., Diesel Equipment Technology, UVSC; ASE Master Truck and Engine Machinist Certified.

BOND, Calvin A. (2001); *Assistant Professor, Chemistry*; B.S., Chemistry; Ph.D., Environmental and Analytical Chemistry, University of Maryland.

BRACKEN, Mark (1997); *Associate Professor, Biology*; B.S., Physiology; Ph.D., Exercise Physiology, Brigham Young University.

BRADFORD, Joel A. (1993); *Assistant Professor, Manufacturing Engineering Technology*; B.S., Vocational Education, Southern Illinois University.

BRADLEY, Douglas F. (1983); *Department Chair/Professor, Automotive Programs*; B.S., Technical Education Automotive, Utah State University; M.I.E., Industrial Education, Brigham Young University; Certified Caterpillar Instructor, Caterpillar Tractor, Peoria, IL; ASE Certified.

BRANDT, David W. (1992); *Associate Professor, Mathematics*; B.S., Electrical Engineering; B.S., Mathematics, University of Missouri; M.S., Mathematics, University of Illinois.

BRISCOE, Gregory G. (2002). *Assistant Professor, Languages*; B.A., Spanish, Utah State University; M.A., Spanish, University of California, Berkeley; Ph.D., Spanish, University of Pennsylvania.

BROWN, Kathren A. (2002) *Assistant Professor, History and Political Science*; B.A., Alma College; M.A., World History; Ph.D., World History; Bowling Green State University.

BULE, Steven C. (1999); *Professor, Art and Visual Communications/ Humanities*; B.A., Italian and Art History, Brigham Young University; Ph.D., Art History, Ohio State University.

BULGER, Jeffery W. (1996) *Associate Professor, Philosophy*; B.S., Geology (Petroleum Engineer), University of North Dakota; M.A., Theology, Western, Seminary-Portland; Ph.D., Philosophy, University of Tennessee, Knoxville.

BULLOCK, W. Brent (1990); *Department Chair/Associate Professor*, Legal Studies; B.S., Law Enforcement Administration; M.P.A., Public Administration; J.D., J. Reuben Clark College of Law, Brigham Young University.

BUNDS, Michael P. (2001); *Assistant Professor, Earth Science*; B.A., Geological Sciences, University of California, Santa Barbara; M.S., Geology, University of California, Davis; Ph.D., Geochemistry, University of Utah.

BURTON, David N. (1991); *Associate Professor, Diesel Mechanics Technology*; ASE Certified.

BYBEE, Paul (1993); *Professor, Earth Science*; A.S., General Science; B.S., Zoology/Botany/Geology, Weber State University; M.S., Ecology; Ph.D., Zoology (Comparative Evolutionary Biology; Vertebrate Paleontology), Brigham Young University.

BYRD, Elaine H. (1991); *Professor, Education, Child and Family Studies*; B.S., Social Work, Brigham Young University; M.A., Education/Reading Specialist, Hood College, Maryland; Ed.D., Education/Reading Specialist, Brigham Young University.

C

CADET, Eddy L. (1993); *Associate Professor, Earth Science/Environmental Technology*; B.S., Biology, University of Illinois; M.S., Registered Environmental Health Specialist (REHS).

CAKA, Fern (2001); *Assistant Professor, Chemistry*; B.A., Chemistry; M.S.; Ph.D., Analytical Chemistry, Brigham Young University.

CALDIERO, Alex (2002); *Visiting Scholar, Humanities*.

CALL, Jolayne (1991); *Associate Professor, English/Literature*; B.A., English; B.Ed., Alberta, Edmonton; M.A., English and Dramatic Arts, Brigham Young University.

CALLISON, James (1994); *Associate Professor, Earth Science/Environmental Technology*; B.S., Biology, Southern Utah University; M.S., Range Science, Brigham Young University; Ph.D., Watershed Management, University of Arizona.

CAMPBELL, Robert (1989); *Program Coordinator/Assistant Professor, Automotive Technology*; A.A.S., Automotive/Diesel Technology, Utah Technical College; ASE Certified.

CAREY, Ernest L. (1992); *Associate Dean, School of Computing, Engineering and Technology/Professor, Computing and Networking Sciences*; B.S., Mathematics, College of Southern Utah; M.S., Mathematics, Brigham Young University; Ed.D., Curriculum, University of Hawaii.

CARLSON, Gary G. (1984); *Professor, Mathematics*; B.S., Mathematics, South Dakota School of Mines and Technology; M.S., Mathematics, Colorado State University.

CARLTON, Gaya (1989); *Professor, Nursing*; A.S., Nursing, Weber State College; B.S., Nursing; M.S. Nursing, University of Utah.

CARNEY, Rob (1997); *Associate Professor, English/Literature*; B.A., English, Pacific Lutheran University; M.F.A., Creative Writing-Poetry, Eastern Washington University; Ph.D., English, University of Southwestern Louisiana.

CARTER, Elaine C. (1987); *Professor, College Success and Academic Literacy*; B.S., Elementary Education; M.Ed., Elementary Education-Curriculum/Instruction, Brigham Young University.

CHAMBERLAIN, Jenny (1998); *Director, Equity in Opportunity: Training and Resource Center*; B.A., Humanities; M.S., Sociology, Brigham Young University.

CHAN, Jeannine M. (2004); *Assistant Professor, Chemistry*; B.F.A, Ballet, B.S., Chemistry, University of Utah; Ph.D., Biochemistry, Utah State University.

CHIPMAN, Kenneth (1990); *Professor, Developmental Mathematics*; B.Ed., Mathematics, University of Calgary; M.Ed., Educational Administration, University of Montana; Ed.D., Educational Leadership, Brigham Young University.

CHOU, Grace (2002); *Assistant Professor, Behavioral Science*; B.A., Sociology, National Taiwan University; M.A.; Ph.D., Sociology, University of California, Riverside.

CHRISTOFFERSON, Max L. (1994); *Department Chair/Instructor, Lineman Technology and Lineman Apprenticeship Training Program*; Journeyman Lineman.

CLARK, Steven C. (2000); *Assistant Professor, Behavioral Science*; B.S., Psychology, Brigham Young University; M.A., Ph.D., Psychology, University of New Hampshire.

CLARKE, Alan (2003), *Associate Professor, Integrated Studies;* LL.M Human Rights Law, Queen's University, Kingston, Ontario, J.D. , College of William and Mary.

CLUFF, Elizabeth (2002); *Assistant Professor, Computer and Networking Sciences*; B.S.; M.S., Computer Science, Brigham Young University.

COBB, William W. Jr. (1994); *Dean, School of Humanities, Arts, and Social Sciences/ Professor, History and Political Science*; B.A., Philosophy; M.A., History, Colorado State University; Ph.D., History, University of Colorado.

COLD, S. Jeff (1994); *Associate Professor, Computing and Networking Sciences*; Certificate, Networking, Utah Valley State College; B.S., Physical Plant Administration, Brigham Young University; M.B.A., University of Nebraska.

COLLEDGE, Jacqueline (2000); *Lecturer, Dance (Ballet)*.

CONDIE, Heidi (2001); *Assistant Professor, Basic Composition/English as a Second Language*; B.A., German Literature, Brigham Young University; M.A., Linguistics, University of Utah.

COOK, Bradley J. (1999); *Vice President for Academic Affairs*; B.A., International Relations, Stanford University; M.A., Social Science and Education, Stanford University; Ph.D., Middle Eastern Studies and Comparative Education, University of Oxford, England.

COOK, Lyndon W. (1991); *Curator of Special Collections/Associate Professor, History and Political Science*; B.A., Spanish and Hebrew; M.A., Political Science and Government, Brigham Young University.

COUSINS, Robert J. (1998); *Associate Professor, English/Literature*; B.A., Humanities, Brigham Young University; M.A.; Ph.D., American

Studies, Purdue University.

COZZENS, Charles F. (1998); *Assistant Professor, Business Management*; B.S., Psychology; M.B.A., Marriott School of Business Management, Brigham Young University.

CRANDALL, Richard W. (1998); *Director of Aviation/Flight Instructor*; B.S., Sociology, Brigham Young University; Certified Flight Instructor; Advanced Ground Instructor; Commercial and Instrument Flight Rating; Retired Air Force Colonel.

CRANE, Mark E. (2002); *Computerized Lab Supervisor/Assistant Professor, English*; B.S., English Literature, Brigham Young University; M.A., English Literature, Portland State University; Ph.D., Composition and Rhetoric, University of Louisville.

CRAVEN, Marianne (1995); *Associate Professor, Nursing*; B.S., Nursing, Brigham Young University; M.N., Nursing, University of Phoenix.

CRAWFORD, Malcolm (1985); *Professor, Physics*; B.E.S.; M.S.E.E., Electrical Engineering, Brigham Young University.

D

DARAIS, Karin M. (1992-1999, 2003) *Assistant Professor, Accounting*. B.S., Accounting, Brigham Young University; M .Acc., Management Accounting, Brigham Young University; Ph.D. Accounting, University of Utah.

DAVIDSON, J.D. (1972); *Dean, Wasatch Campus/Associate Professor, English/Literature*; B.A., English, Brigham Young University; M.S., English, Utah State University.

DAVIS, Ben Fred (1994); *Associate Professor, Building Inspection Technology*; B.S., Geography/Urban Planning, University of Utah.

DEBENHAM, Kathie (1995); *Associate Dean, School of Humanities, Arts, and Social Sciences/Artistic Director Synergy Dance/Associate Professor; Dance;* B.A.; M.A., Physical Education/Dance, Brigham Young University; Certified Laban/Bartenieff Movement Analyst, University of Utah.

deBRY, Roger K. (1998); *Assistant Professor, Computing and Networking Sciences*; B.S., Mathematics; M.S., Computer Science; Ph.D., Electrical Engineering (Computer Science), University of Utah.

DeSART, Jay A. (2004); *Assistant Professor, History and Political Science*; B.A., Political Science and International Relations, Concordia College; M.A., Ph.D., Political Science, University of Wisconsin-Milwaukee.

deWITT, Robert B. (1986); *Professor, Art and Visual Communications*; B.A., Art; M.F.A., Art/Painting, Brigham Young University.

DINKLAGE, William S. (2002); *Assistant Professor, Earth Science*; B.A., Physics, Carleton College; Ph.D., Geology, University of California, Santa Barbara.

DOWNING, Catherine (1996); *Associate Professor, Art and Visual Communications*; B.F.A., Drawing, University of Florida; M.F.A., Painting, University of South Florida.

DOWNS, Doug (2004); *Assistant Professor, English & Literature*; B.A., English, Southeast Missouri State University; M.A., English, Emporia State University; Ph.D., English, University of Utah.

DRAPER, David D. (1986); *Associate Professor, Electronic and Computer Technology*; B.A., Art & Design, Brigham Young University; B.S.E.E., Electrical Engineering, Utah State University.

DUCKWORTH, Cory (2003); *Vice President for Student Affairs & Strategic Planning*;B.A., Political Science and Psychology, Utah State University; M.A., Political Science, University of Utah; J.D., University of Utah, College of Law.

DUNKLEY, Paul W. (1980); *Professor, Electronics and Computer Technology*.

DUNN, Robert H. (1972); *Program Coordinator/Professor, Building Construction and Construction Management*.

DURNEY, Brian (2001); *Associate Professor, Computing and Networking Sciences*; B.S., Computer Science, University of Utah; M.S. Computer Science, Stanford University; Ph.D., Computer Science, University of Oregon.

E

EAGAR, L. Brent (1999); *Associate Professor, Finance and Economics*; B.S.E.E., University of Utah; M.B.A., University of Michigan; Ph.D., Business Management; University of Washington.

ELDREDGE, Bryan K. (1998); *Associate Professor, Languages (ASL)*; B.A., English; M.A., Linguistics, Brigham Young University.

ENGLEHARDT, Elaine Eliason (1979); *Associate Vice President for Academic Affairs/Professor, Humanities and Philosophy*; B.A., Journalism; M.A., Communications, Brigham Young University; Ph.D., Communications, University of Utah.

ERDMANN, DeWayne (1999); *Assistant Professor, Building Construction and Construction Management*; B.S., Industrial Education, Brigham Young University.

ERICKSON, Wayne E. (1987); *Professor, Music*; A.S., Music, College of Eastern Utah; B.M., Music, Utah State University; M.M., Music, Brigham Young University.

ESMAY, Rodayne (2003); *Associate Professor, Multimedia Communication Technology*; B.S., Art, Brigham Young University; M.F.A., Illustration, Syracuse University.

EVENSON, William E. (2004); *Associate Dean, School of Science and Health*; B.S., Physics, Brigham Young University; Ph.D., Theoretical Physics, Iowa State University of Science and Technology.

EYRAUD, Kevin (2001); *ESL Program Director/Assistant Professor, Basic Composition/English as a Second Language*; B.A., Spanish; B.A., Liberal Arts and Sciences, Utah State University; M.A., Teaching English as a Second Language, Northern Arizona University.

F

FAIRCLOUGH, Dennis (1990); *Associate Dean, School of Computing, Engineering and Technology/Department Chair/Professor, Pre-Engineering*; B.S.E.E., Electrical Engineering, University of Utah; M.S.E.E., Electrical Engineering, University of Santa Clara; Ph.D., ABD, Electrical Engineering, Brigham Young University.

FALLIS, Diana J. (1998); *Instructor, Culinary Arts Institute*; A.A.S., Culinary Arts, Utah Valley State College; Certified Chef de Cuisine.

FARMER, Suzette (1995-97, 1998); *Associate Dean, School of Science & Health/Associate Professor, Nursing*; A.S., Nursing, Weber State University; B.S.; M.S.N., Nursing, University of Utah; Ph.D., Nursing, University of Utah.

FARNSWORTH, Briant J. (1998); *Dean, School of Education/Associate Professor, Education, Child and Family Studies*; B.S., Biological Sciences; M.S., Education, University of Utah; Ed.D., Elementary Curriculum and Instruction, Brigham Young University.

FARNSWORTH, F. Dennis Jr. (1972); *Professor, History and Political Science*; B.A., Asian Studies; M.A., International Administration, Brigham Young University.

FAUROT, Don (2002); *Associate Professor, Mathematics*; B.S., Engineering, UCLA; M.S., Mathematics, California State University-Northridge, Ph.D., Mathematics, University of Oregon.

FEARNLEY, David (2000); *Assistant Professor, Mathematics*; B.S.; M.S.; Ph.D., Mathematics, University of Oxford.

FENTON, James W. Jr. (2002); *Dean, School of Business/Professor, Business Management*; B.A.; M.B.A, Business Administration, University of Toledo; Ph.D. Business Administration, University of Iowa.

FERREIRA, Debora R.S. (2001); *Assistant Professor, Languages (Portuguese)*; B.A., Language and Literature, Universidade Federal de Pernambuco, Recife, Brazil; M.A., Romance Languages, University of Georgia Ph.D., Romance Languages, University of Georgia.

FIELD, Lewis (2000); *Rodeo Coach/TTI Recruitment Coordinator*; A.A.S., Building Construction, Utah Valley State College.

FILLMORE, Curtis D. (1997); *Associate Professor, Legal Studies*; B.S., Sociology; M.P.A., Public Administration, Brigham Young University.

FLINT, G. David (2003) *Assistant Professor, Finance and Economics and Business Management*; B.A. Grand Canyon University; M.I.M., International Management, American Graduate School of International Management; Ph.D., Management, Texas A & M University.

FORDHAM, Steve (1989); *Department Chair, Air Conditioing and Refrigeration Technology, Building Construction and Construction Management, Building Inspection Technology, Cabinetry and Architectural Woodworking, Facilities Management, Lineman Technology, Welding Technology/Associate Professor, Air Conditioning and Refrigeration Technology*; A.S., Refrigeration, Utah Technical College.

FORTE, Gregory C. (1991); *Director/Chef/Associate Professor, Culinary Arts Institute*; Culinary Institute of America, Hyde Park, New York; Certified Executive Chef; Certified Culinary Educator; American Academy of Chefs; B.A., Syracuse University.

FRENCH, Kathryn (1995); *Associate Professor, Early Childhood Education*; B.A., General Studies, Shimer College; M.S., Early Childhood Education; Ed.D., Educational Psychology, Northern Illinois University.

FRITZE, Tamara (1997); *Associate Professor, English/Literature*; B.A., English/Anthropology, Linfield College; M.A., English, Eastern Washington University; Ph.D., American Studies, Washington State University.

FULLMER, David (2002); *Assistant Professor, Music*; B.M.; M.M., Music Education, Brigham Young University; D.M.A., Instrumental Conducting, University of Washington.

FULLMER, Steve B. (1998); *Assistant Professor, English/Literature*; A.S., English, Utah Valley State College; B.A.; M.A., English, Brigham Young University.

G

GALLOWAY, Shane P. (2003); *Assistant Professor, Physical Education and Recreation*. B.S., Journalism and Political Science, Indiana University; M.S., Outdoor Recreation Resource Management, Indiana University; Ph.D., Leisure Behavior and Education Psychology, Indiana University.

GARDNER, Norman (1995); *Professor, Finance and Economics*; B.A., Spanish; M.B.A. (Business Administration emphasis), Brigham Young University; Ph.D., Business Administration, Finance, University of Utah.

GARDNER, Pamela J. (1999); *Dean, School of Continuing and Adult Education*; B.A.; M.Ed., Secondary and Higher Education Foundations and Curriculum; Ed.D, Educational Leadership, Brigham Young University.

GARDNER, Steve (1990); *Baseball Coach/Instructor, Physical Education and Recreation*; B.S., Physical Education, Weber State College; M.S., Physical Education; M.A., Professional Leadership, Brigham Young University.

GIBSON, Stephen D. (2001); *Assistant Professor, English/Literature*; B.A., English, Brigham Young University; M.A., Creative Writing and Literature, Purdue University; Ph.D., Creative Writing and Literature, University of Houston.

GLENN, Lowell M. (1999); *Department Chair/Assistant Professor*, Finance and Economics; B.S., Public Administration/Political Science; M.B.A., Brigham Young University; Ph.D., Economics, George Washington University.

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R

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S

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SHAW, Michael M. (2003); *Assistant Professor Philosophy and Humanities*; B.A., Philosophy, Bates College; M.A., Philosophy, Villanova University; Ph.D., Philosophy, Villanova University.

SHELTON, Linda (2000); *Lecturer, English/Literature*; B.A., Speech/ Drama Secondary Education; M.A., Communications, Brigham Young University.

SHIELDS, Jon R. (1981); *Associate Professor, Fire Science*; A.A.S., Fire Science, Utah Technical College; Outreach Instructor for National Fire Academy.

SHIVELY, Michael J. (1993); *Professor, Biology*; M.S.; Ph.D., Anatomy; D.V.M., Purdue University.

SHUMWAY, Del K. (1984); *Department Chair/Professor, Languages (Spanish)*; B.A., Spanish/English, Brigham Young University; Ph.D., Spanish/Latin American Literature, Washington University.

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Z

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Prefix	Academic Subject
ACC	Accounting
ACRT	Air Conditioning and Refrigeration Technology
AERO	Aerospace Science
AMST	American Studies
ANTH	Anthropology
APPR	Apprentice
ARCH	Archaeology
ART	Art
ARTH	Art History
ASL	American Sign Language
ASTR	Astronomy
AUT	Automotive Technology
AVC	Art and Visual Communications
AVSC	Aviation Science
BCCM	Building Construction and Construction Management
BESC	Behavioral Science
BIOL	Biology
BIT	Building Inspection Technology
BOT	Botany
BUS	Business
CA	Culinary Arts
CAW	Cabinetry and Architectural Woodwork
CHEM	Chemistry
CHIN	Chinese
CJ	Criminal Justice
CLSS	College Success Studies
CNS	Computing and Networking Sciences
COMM	Communications
COOP	Cooperative Education
CRT	Collision Repair Technology
CTRS	Critical Thinking and Reading Strategies
DANC	Dance
DENT	Dental Hygiene
DMT	Diesel Mechanics Technology
DT	Drafting Technology
EART	Electrical Automation and Robotics Technology
ECFS	Education, Child and Family Studies
ECON	Economics
ECT	Electronic and Computer Technology
EDEC	Early Childhood Education
EDEL	Elementary Education
EDSC	Secondary Education
EDSP	Special Education
EENG	Electrical Engineering
ENGH	English - Basic Composition
ENGL	English and Literature
ENGR	Engineering Science
ENVT	Environmental Management
ESL	English As A Second Language
FAC	Facilities Management
FAMT	Fine Arts, Music, and Theater
FREN	French
FS	Fire Science
FSD	Fire Science - Driver/Operator
FSE	Fire Science - Emergency Medicine
FSF	Fire Science - Firefighter
FSH	Fire Science - Hazardous Material
FSO	Fire Science - Officer
FSP	Fire Science - Inspector
FSR	Fire Science - Rescue
GEO	Geology
GEOG	Geography
GER	German
HIST	History
HLTH	Community Health
HM	Hospitality Management
HUM	Humanities
HVAC	Heating, Ventilation, Air Conditioning
IS	Integrated Studies
ISYS	Information Systems
JPNS	Japanese
LANG	Languages
LEGL	Legal Studies
LFSC	Life Science
LINE	Lineman Technology
MAT	Mathematics - Developmental
MATH	Mathematics
MCT	Multimedia Communication Technology
MET	Manufacturing Engineering Technology
METO	Meteorology
MGMT	Business Management
MICR	Microbiology
MILS	Military Science
MTT	Machine Tool Technology
MUSC	Music
NURS	Nursing
NUTR	Nutrition
PES	Physical Education
PESM	Public and Emergency Services Management
PETE	Physical Education Teacher Education
PHIL	Philosophy
PHSC	Physical Science
PHYS	Physics
POLS	Political Science
PORT	Portuguese
PSY	Psychology
REC	Recreation
RLST	Religious Studies
RUS	Russian
SOC	Sociology
SOSC	Social Science
SOWK	Social Work
SPAN	Spanish
TCT	Telecommunications Technology
TECH	Technology Management
THEA	Theatrical Arts for Stage and Screen
WELD	Welding Technology
ZOOL	Zoology

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2. Woodbury Business Building (WB)
3. Sparks Automotive Building (SA)
4. Gunther Trades Building (GT)
5. Computer Sciences & Engineering Building (CS)
6. Losee Learning Resource Center (LC)
7. Sorensen Student Center (SC)
8. Environmental Technology Building (EN)
9. Pope Science Building (PS)
10. Physical Education Building (PE)
11. McKay Events Center (MC)
12. National Guard Building (NG)
13. Mountainland Applied Technology College (MT)
14. Education Building (EB)
15. Wee Care Center
16. Planning Center
17. Institutional Residence
18. Continuing Education House
19. LDS Institute (IN)
20. Liberal Arts (LA)

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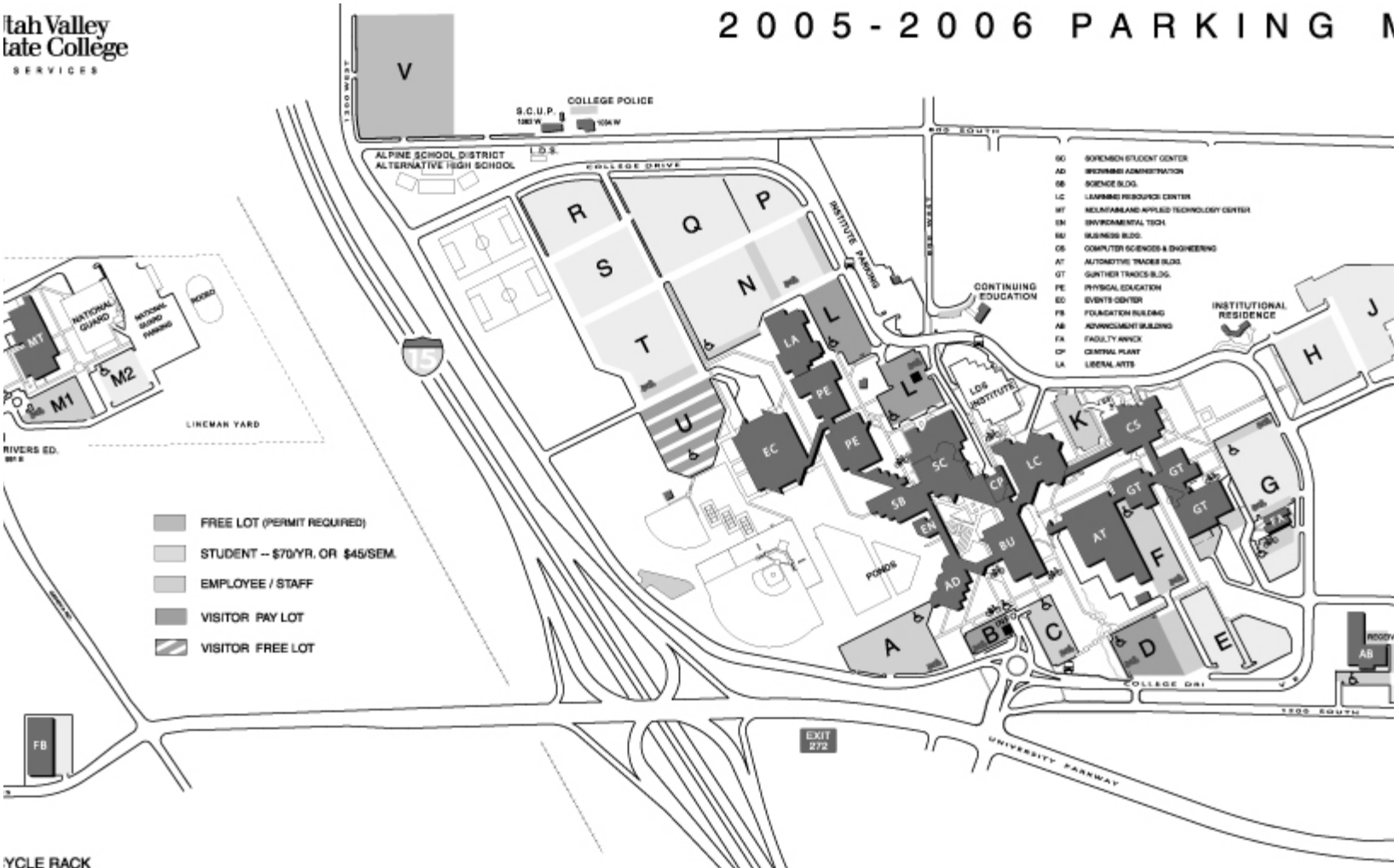

YCLE RACK

A BUS STOP

A PARKING

TORCYCLE STALL

NOTE: ALL INDIVIDUALS WHO PURCHASE A HIGHER COST PERMIT WILL BE ABLE TO PARK IN ANY LOT THAT HAS BEEN ASSESSED AT A LOWER RATE.

ANY CHANGES, ERRORS, OR OMISSIONS ON MAPS PROVIDED BY THE COLLEGE SHALL NOT RELIEVE THE VEHICLE OPERATOR OF RESPONSIBILITY FOR PARKING IN A LEGAL PARKING SPACE.

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MONDAY, THURSDAY, FRIDAY
TUESDAY, WEDNESDAY 7 - 6