

COURSE # AVSC 1010

Survey of Aviation Science

*2018-2019*

**Instructor**

**Instructor:**

**Phone:**

**Email:**

**Office Hours:**

**Course**

## Course Description

***This is a Concurrent Enrollment Course, offering both high school credit through \_\_\_\_\_\_\_\_\_\_\_\_\_\_ High School and college credit through Utah Valley University. Credit from this course is transferable to all colleges and universities. Contact the receiving institution for how the credits will be applied.***

**Aviation Science Mission Statement**

The mission of the UVU School of Aviation is to provide a superior educational experience, which prepares students for successful careers and promotes responsible citizenship in a global aviation environment through engaged learning and opportunity.

**Catalog Description**

Designed for all students interested in aviation careers. Includes a general knowledge of aviation, historical events, and aerospace studies/ development opportunities. Studies aviation and aerospace terminology, how aircraft and spacecraft fly, research and development of future systems, government and industry roles in the growth of aviation, and potential careers in aviation.

**Course Prerequisites**

This class is available to all high school students in good academic standing. High school prerequisites apply.

## Course Objectives or Learning Outcomes

**Upon successful completion of this course students should be able to do the following:**

1. Objective: 1 - Identify significant historical aviation events and discuss their relationship to the progress of aviation and space exploration.

Outcome: Students will be able to identify why particular historical figures, and developments were important to aviation in general.

Assessment: The assessment for this outcome will be a written test containing multiple choice, matching and true and false questions.

1. Objective: Identify and explain the physics and principles of flight, aircraft structure and systems, and navigation principles.

Outcome: Students will be able to identify aerospace technologies and terminology used in everyday life.

Assessment: The assessment for this outcome will be a written test containing multiple choice, matching and true and false questions. For Rocket structure it will be a take-home test.

1. Objective: Identify and explain basic weather principles and their application to aeronautics.

Outcome: Students will exhibit basic knowledge of weather theory.

Assessment: The assessment for this outcome will be a written test containing multiple choice, matching and true and false questions.

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1. Objective: Identify and explain Government’s role in aviation to include airports, navigation, regulation, accident investigation and space.

Outcome: Students will demonstrate a knowledge of how regulations are developed and administered.

Assessment: The assessment for this outcome will be a written test containing multiple choice, matching and true and false questions.

1. Objective: Identify aviation and aerospace career opportunities to include the air traffic control system, air carriers, general aviation, business and corporate, military, government and aerospace organizations.

Outcome: Students will retain a basic knowledge of the many careers available in aviation.

Assessment: The assessment for this outcome will be a written test containing multiple choice, matching and true and false questions.

**Course Topics of Review**:

Early Aviators

Early Air Power

Golden Age

WWII

Cold War – Desert Storm Advances

Advances in Aeronautics

Principles of Flight and Navigation

Basic Aeronautics and Aerodynamics

Flight Navigation

Aircraft in Motion

Aerospace Community

Airport –Air Carriers

General Aviation

Business Aviation

Military

Rotorwing Aerospace Organizations

Careers

The Environment

The Atmosphere

Weather Elements

Aviation Weather

Rockets

Rocket Fundamentals

Chemical Propulsion

Orbits and Trajectories

Space and Apace Environment

Solar System

Unmanned and Manned Space Flight

**Required Text and Materials**

Aerospace: The Journey of Flight 3rd Edition ISBN: 281-0-05-001514-9

**Department Policies**

**Student and Instructor Expectations**

Students are expected to complete assigned work on time. The instructor will arrive prepared and provide adequate office hours. Both Students and Instructor should visit the course website on canvas frequently.

**Prepare**

Each topic area represents a chapter in the textbook. Read the chapter before the corresponding lecture and come to class ready to discuss what you have read. Class will consist of lectures, discussions and interactive activities. Come prepared to have some fun.

**Engage**

During class you will have the opportunity to take part in discussions, competitions and hands on activities. Pay attention because extra points are given to students who volunteer for activities and who come up with questions for the instructor.

**Critical Thinking Questions / Discussions**

Approximately once a week there will be a critical thinking question that we will address in classroom groups and occasionally as an online assignment. We will talk a little about Bloom’s Taxonomy of learning, so you understand the reasoning behind these assignments. The purpose is to get you to go beyond the lower levels of learning (content, memorization etc.) and think critically about some of the topics we tackle in the class. By adding thought and context, it helps make some of the information easier to understand and remember. Don’t worry it is much more enjoyable than memorizing dates.

**Term Paper**

The purpose of the term paper assignment is to foster critical thinking on the part of each student. A choice of topics will be presented to the class by the instructor and will include choices pertaining to landmarks in aviation development, aviation pioneers and the future of aviation. The paper may be completed using sources from the Internet and the library. The report should be no shorter than three typed pages, double-spaced, one-inch margins, Times New Roman and 12-point font. The report must contain at least 25% of the student’s comments showing their understanding and opinions on the subject matter. Do not merely plagiarize from the Internet. The report must contain at least three references using sources from the UVU library or credible aviation website. Papers will be turned in during class or through a link in canvas.

**Final Exam**

**The final is a comprehensive exam with a 2-hour time limit that consists of both multiple choice and matching questions. In order to complete the exam within the time limit, you will need to have studied and reviewed the course material ahead of time.**

**Assessment**

Grades are determined by instructors, based upon measures established by the instructor and department and may include the following: 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 exceptional grade indicating superior achievement; “B” is a grade indicating commendable mastery; “C” indicates satisfactory mastery and is considered an average grade; “D” indicates substandard progress and insufficient evidence of ability to succeed in sequential courses; “E” (failing) indicates inadequate mastery of pertinent skills or repeated absences from class; “UW” indicates unofficial withdrawal from class.

**Grading Scale**

A = 100-95 B - = 83-80 D+ = 69-67

A - = 94-90 C+ = 79-77 D = 66-64

B+ = 89-87 C = 76-74 D - = 63-60

B = 86-84 C - = 73-70 F = 59-0

**Grades and Credit**

Your grade for this class will become part of your permanent college transcript and will affect your GPA. A low grade in this course can affect college acceptance and scholarship eligibility.

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**University Policies**

**Academic Integrity**

Utah Valley University expects all students to maintain integrity and high standards of individual honesty in academic work, to obey the law, and to show respect for others. Students of this class are expected to support an environment of academic integrity, have the right to such an environment, and should avoid all aspects of academic dishonesty. Examples of academic dishonesty include plagiarizing, faking of data, sharing information during an exam, discussing an exam with another student who has not taken the exam, consulting reference material during an exam, submitting a written assignment which was authored by someone other than you, and/or cheating in any form.

In keeping with UVU policy, evidence of academic dishonesty may result in a failing grade in the course and disciplinary review by the college.  Any student caught cheating will receive, at minimum, zero points on that particular assignment for the first offense.  A second offense can result in failing the course and will entail being reported to Student Advising.  Academic dishonesty includes, in part, using materials obtained from another student, published literature, and the Internet without proper acknowledgment of the source.   Additional information on this topic is published in the student handbook and is available on the UVU website.

### **Student Code of Conduct**

All UVU students are expected to conduct themselves in an appropriate manner acceptable at an institution of higher learning. All students are expected to **obey the law**, 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**.

The Student Rights and Responsibilities Code, or Code of Conduct, outlines for students what they can expect from the University and what the University expects of them.

Students should review their Rights and Responsibilities. The Code of Conduct also outlines the process for academic appeals, and appeals related to misconduct and sanctions. It can be found at <http://www.uvu.edu/studentconduct/students/>

**Student Responsibilities**

You are expected to take an active role in the learning process by meeting course requirements as specified in written syllabi. Faculty members have the right to establish classroom standards of behavior and attendance requirements. You are expected to meet these requirements and make contact with faculty members when unable to do so.

**Withdrawal Policy**

If you do not wish to take this course or find that you are unable to continue, you should officially withdraw by the deadline stated in the current semester UVU Student Timetable.

You can officially withdraw from a course by dropping it through the online registration system or the campus One Stop desk (BA 106) by the listed date. If you officially withdraw from a course by the "Last Day to Drop and Not Show on Transcript," the course will not appear on your academic transcripts. If you officially withdraw from a course by the "Last Day to Withdraw," a "W" will appear on your transcripts. Although your GPA will not be affected — a "W" will indicate that you chose to withdraw. If you fail to complete the course and do not drop it before the "Last Day to Withdraw," a "UW" or "E" (a failing grade) will appear on your transcripts.

Withdrawing from a course may impact your financial aid status. For more information, see: UVU Financial Aid.

**Cheating and Plagiarism Policy Procedures**

This document was taken from the Utah Valley University Policy 541, The Student Rights and Responsibilities Code

5.4.4 Each student is expected to maintain academic ethics and honesty in all its forms, including, but not limited to, cheating and plagiarism as defined hereafter:

1) Cheating is the act of using or 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.

2) Plagiarism is the act of appropriating another 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.

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

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

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

c) 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.

d) Submitting as your own any academic exercise (written work, printing, sculpture, etc.) prepared totally or in part by another.

### **Students with Disabilities**

**Students who need accommodations because of a disability** may contact the UVU Office of Accessibility Services (OAS), located on the Orem Campus in LC 312. To schedule an appointment or to speak with a counselor, call the OAS office at 801-863-8747. Deaf/Hard of Hearing individuals, email [nicole.hemmingsen@uvu.edu](https://owa.uvu.edu/owa/redir.aspx?C=r3xUa4y2bkalWljgIj1VXM3KzYlusNIIESMqIpkF5USfG-H3cUMstYl8DNScKc_quB49PvOQ-l0.&URL=mailto%3anicole.hemmingsen%40uvu.edu) or text 385-208-2677.

**Religious Accommodations**

At the beginning of each semester, you shall promptly review the course syllabus and class schedule and notify faculty to request an accommodation for sincerely held religious beliefs and practices using the *Religious Accommodation Request Form*.

**Dangerous Behavior**

The faculty member has the right to demand and secure the immediate removal of any person from the classroom whenever the faculty member determines, to the best of his or her knowledge or belief, that the person's actions are threatening or dangerous to students or themselves. If the faculty member cannot resolve a disruptive situation, the faculty member may request that the disruptive person(s) leave the classroom. If the disruptive person(s) will not leave voluntarily, the faculty member may call University Police for assistance. The incident shall be reported to the Dean of Students and to the Director of Judicial Affairs in accordance with Policy 541 *Student Rights and Responsibilities Code*.

**Discriminatory, Exclusionary, or Disruptive Behavior**

Faculty members observing discriminatory, exclusionary, or disruptive behavior follow procedures described in UVU Policy 541 *Student Rights and Responsibilities Code.* 5.6

**Attendance**

Attendance in this class is not mandatory due to the different learning preferences with each student. However, class will be held according to the schedule on the top of this syllabus. Chapters will be covered in class as listed in the semester schedule below. Class will consist of chapter reviews, discussion and group activities.

**Policies/References**

1. Policy 541: Student Rights and Responsibilities Code <https://www.uvu.edu/catalog/current/policies-requirements/student-rights-and-responsibilities.html>
2. Policy 601: Classroom Instruction and Management. <https://policy.uvu.edu/getDisplayFile/5750ed2697e4c89872d95664>
3. Policy 635: Faculty Rights and Professional Responsibilities. <https://policy.uvu.edu/getDisplayFile/563a40bc65db23201153c27d>

**Definitions**

* 1. Syllabus: An agreement between faculty and students that communicates course structure, schedule, student expectations, expected course outcomes, and methods of assessment to students.

### **Dropping the Class**

### \_\_\_\_\_\_\_\_\_ is the last day to drop the course without it showing on your transcript.

\_\_\_\_\_\_\_\_\_ is the last day to withdraw from the class.   
If you drop the high school class, you must also withdraw from the UVU class to avoid receiving a failing grade.

Due dates and this syllabus may change at the instructor’s discretion due to the needs of the class members.