AVSC-1410 *Aeronautical Knowledge for Small Unmanned Aircraft Systems*

👤 Instructor Contact Information

[Instructor Information](https://uvu.instructure.com/courses/620624/pages/instructor-information) (https://uvu.instructure.com/courses/620624/pages/instructor-information)

Contact Instructor via **Canvas Inbox Messaging. Expect a response by the next business day.**

🗩 Course Description

Prepares students with the aeronautical knowledge necessary to conduct or interact with Unmanned Aircraft Systems (UAS) operations within the National Airspace System (NAS). While this course is not focused on preparing students to pass the FAA part 107 Drone Pilot exam, it will provide all necessary knowledge. Course content includes applicable regulations, airspace classification and operating requirements, effects of weather, loading and performance, communication and emergency procedures, physiological effects of drugs and alcohol, aeronautical decision-making and judgment and airport operations.

This course must be successfully completed to fulfill graduation requirements for the UAS: Unmanned Aircraft Systems, Certificate of Proficiency.

This course is part of the UAS: Unmanned Aircraft Systems, Certificate of Proficiency requirements.

◎ Course Outcomes

Upon successful completion of this course, students will be able to:

- **Demonstrate knowledge relating to small unmanned aircraft system rating privileges, limitations and flight operations**
- **Demonstrate knowledge of airspace classification and operating requirements, obstacle clearance requirements and flight restrictions affecting small unmanned aircraft operations**

- **Utilize official sources of weather and explain effects on small unmanned aircraft performance**
- **Demonstrate knowledge of radio communication procedures and airport operations**
- **Demonstrate knowledge of performance limitations and emergency procedures for small unmanned aircraft operation**
- **Explain physiological effects of drugs and alcohol**
- **Demonstrate aeronautical decision-making and judgment, as well as airport operations**

✔ Prerequisites and Needed Skills

There are no prerequisite courses, aviation ratings, or skills needed for this course.

Prior experience with unmanned aircraft systems (UAS) is not required.

🗎 Materials, Fees and Technology Tools

2023 Remote Pilot Test Prep, Aviation Supplies & Academics, Inc. - ISBN: 978-1-644252-499 (ASA: ASA-TP-UAS-23). Textbook can be found and purchased at the **UVU Bookstore.** ⮞ **(https://store.uvu.edu/)** In addition, web browser compatibility can be found at **Canvas Questions and Answers** ⮞ **(https://community.canvaslms.com/docs/DOC-10720-67952720329)** . Internet browsers such as Google Chrome or Firefox are preferred.

Some course elements may be viewed on mobile devices; however, UVU aviation online courses include elements of instruction that may require the use of a computer.

Fees:

There are no additional fees associated with this course. Taking the part 107 sUAS pilot certification exam is not a course requirement. Students may take the FAA exam of their own volition with independent payment made to the testing center for the FAA fee of $150.

Additional Resources:

The world of UAS is evolving so quickly that many printed references become obsolete soon after publication. There are multiple online resources that are updated consistently. Students are encouraged to become familiar with online resources and their applicability to UAS aeronautical knowledge. There are many to choose from but here are websites that will be referenced in this course.

- **Aviation Weather Center** ⮞ **(https://www.aviationweather.gov)**
- **FlightService Weather Briefings** ⮞ **(https://www.1800wxbrief.com)**
- **Electronic Code of Federal Regulations (eCFR)** ⮞ **(https://gov.ecfr.io/cgi-bin/ECFR)**

- [SkyVector Aeronautical Charts](https://skyvector.com) ⤷ (https://skyvector.com)
- [FAA Safety Team](https://www.faasafety.gov) ⤷ (https://www.faasafety.gov)
- [ASA Preware](https://online.prepware.com) ⤷ (https://online.prepware.com) (practice exams included with course text)
- [King Schools](https://www.kingschools.com/free-faa-exam/drone-pilot) ⤷ (https://www.kingschools.com/free-faa-exam/drone-pilot) (free FAA part 107 pilot test practice)
- [Drone Laws by State & Country](https://uavcoach.com/drone-laws) ⤷ (https://uavcoach.com/drone-laws)

❓ How This Course Works

Course Mode: Online

This is an online delivery course. Visit the course Modules page to see the weekly content in the course structure. Assigned work will be due at the end of each week indicated in the "Course Summary" timetable below. This includes weekly due dates for all work to be turned in (writing, discussions, quiz, test, etc.).

NOTE: The "Course Summary" table at the below in the syllabus is for reference only. Your instructor many update any due dates or assignment changes. The course summary is your best reference to ensure you do not miss work to be submitted each week.

NOTE: All work to be turned in must be submitted by 11:59 PM MST/MDT on the date listed with the assignment/quiz.

Description of how course works:

Canvas is where course content, grades, and communications will reside for this course.

There is one learning module per week for this course (see *Course Schedule* table below). Students should complete each learning activity identified in the weekly module and submit assigned work per the scheduled due dates. Some learning activities require significantly more time than others. Students are **encouraged** to work ahead if possible to ensure they have the **necessary time** for completion of work and knowledge practice questions in the Remote Pilot Test Prep text.

Students should prepare to spend significant time studying aeronautical topics i.e. aviation weather, aeronautical charts, airspace, flight physiology, etc. Even if students do not intend to take the FAA part 107 exam, taking multiple practice exams from the ASA and King School websites (see *Additional Resources* above) are very useful for learning how to apply this aeronautical knowledge for safe, lawful, and socially responsible UAS operations.

For this **three (3) credit-hour** course students should expect to spend up to **9+ hours a week** completing course activities.

Student Responsibilities:

- *Start class the first week of the term.*

- ***Be accountable by setting aside regular time each week to complete course activities and assignments on time as noted per the due dates**.*
- *Learn how to use Canvas including communication tools (e.g. discussion, Canvas inbox, etc.). If you have technology-related problems contact the **Service Desk** ▱ **(https://www.uvu.edu/servicedesk)** .*
- *Abide by ethical standards. Your work must be your own.*
- *Contact your instructor as early as possible if an emergency arises. Do NOT wait until the last minute to ask for an extension.*

Instructor Responsibilities:

- *Respond to emails within ONE business day. If multiple emails are received regarding the same question or concern, they may be responded to with an announcement to the entire class.*
- *Provide timely, meaningful and constructive feedback on assignments.*
- *Facilitate an effective learning experience.*
- *Refer students to appropriate services for issues that are non-course content specific. For instance, technical issue, writing labs, accessibility services, etc.*
- *Mentor students through the course.*

Artificial Intelligence (AI) Expectations and Requirements

You may use AI programs e.g. ChatGPT to help generate ideas and brainstorm. However, you should note that the material generated by these programs may be inaccurate, incomplete, or otherwise problematic. For example, AI-generated language programs are known to "hallucinate", i.e. create references to non-existent resources. Beware that use of AI may also stifle your own independent thinking and creativity.

You may not submit any work generated by an AI program as your own. If you include material generated by an AI program, it should be cited like any other reference material (with due consideration for the quality of the reference, which may be poor).

Any plagiarism or other form of cheating will be dealt with severely under relevant UVU Plagiarism policies as described in the **UVU Student Code of Conduct** ▱ **(https://www.uvu.edu/catalog/current/policies-requirements/student-code-of-conduct.html)** , UVU Policy **541** ▱ **(https://policy.uvu.edu/getDisplayFile/5bedd0ef7b23736d542192e3)** .

📈 Grading and Late Work Statement

Grading Scale:

The following grading standards will be used in this class:

Grade	Percent
A	94-100
A-	90-93
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
E	0-59

Assignment Categories

Activity	Point
Assignments	10 @ 50 pts/each = 500 pts total
Discussions	1 @ 30 pts/each 2 @ 45 pts/each = 120 pts total
Quizzes	6 @ 10 pts/each =60 pts total
Practice Exams	2 @ 60 pts/each =120 pts total
Faa Exam	2 @ 10 pts/each =20 pts total
Final Flight Plan	1 @ 130 pts =130 total
Course Total	**950**

Late Work Statement:

Students may complete modules days or weeks ahead of the assigned schedule in this course. Students should budget their time to account for modules that take longer than others to compete. **Communicating** with the instructor **ahead** of assigned due dates is paramount for considering extended due dates. This will only be considered in case of unforeseeable and significant extenuating circumstances.

Late assignments will not be accepted!

📝 Assignment and Assessment Descriptions

Assignments:

You will be required to complete written assignments throughout this course. It will be to your advantage to review the assignment well before the week it is due. The assignments are spaced to help you pace yourself throughout the semester. Instructions and grading rubrics are found in the assignment descriptions in Canvas. Assignments need to be submitted in Microsoft Word or other word processing file formats such as Adobe PDF. Assignments cannot be handwritten. A video on how to submit Assignments in Canvas can be found in **the Canvas Student Guide. (https://mediafiles.uvu.edu/common/student_guide/index_url.html?page=page1)**

Assignments should be written in the student's own words with moderate use of referenced materials which must be cited to give proper credit to the author or source. **Copyleaks**: Assignments have a plagiarism detector that checks your work's originality. Should your instructor have any concerns about plagiarism they will contact you directly. Please refer to **Copyleaks Ltd's Privacy Statement ⬀ (https://copyleaks.com/privacy-policy)** to read how Copyleaks cares about your rights and personal data.

Discussions:

Discussion posting provide opportunities to explore topics together. Posts to the discussion should add significantly to the conversation and support your point of view. You are welcome to contribute to other student's postings if you have incite specific to that topic. It is okay to disagree with others in a discussion. In fact much learning happens when we disagree. However, all postings need to be professional and respectful of others. As if you were politely showing an alternative point of view in a job interview.

Assessments:

Quizzes in this course will provide objective assessment of the student's learning.

Final Paper:

The Final Flight Plan writing assignment will cover material from the entire course and will be worth 200 points. This written plan will be in lieu of a final exam. The objective of this plan is to combine the aeronautical knowledge learned, in a manner that would provide a UAS pilot or organization to assess whether proposed flights are safe, lawful, and socially responsible.

📅 Course Schedule

Refer to the **(https://uvu.instructure.com/courses/620624/pages/course-schedule) Course Schedule Canvas page (https://uvu.instructure.com/courses/620624/pages/course-schedule)** .

⚖️ UVU Policies and Resources

Americans with Disabilities Act and Section 504 of the Rehabilitation Act

The Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973, as amended, prohibit Utah Valley University from engaging in discrimination on the basis of disability in any program or activity. Discrimination is also prohibited in all aspects of employment against persons with disabilities who, with reasonable accommodation, can perform the essential functions of a job.

Students who believe s/he has been denied program access or otherwise discriminated against because of a disability is encouraged to initiate a grievance by contacting the Accessibility Services Director, Sherry Page at 801-863-8747. Employees can contact the ADA Coordinator, Irene Whittier at 801-863-8389.

Upon request, this information is available in alternative formats, such as mp3, Braille, or large print. To request this format, email **asd@uvu.edu (mailto:asd@uvu.edu)** .

Religious Accommodations Syllabus Statement

UVU values and acknowledges a wide range of faiths and religions as part of our student body, and as such provides accommodations for students. Religious belief includes the student's faith or conscience as well as the student's participation in an organized activity conducted under the auspices of the student's religious tradition or religious organization. The accommodations include reasonable student absences from scheduled examinations or academic requirements if they create an undue hardship for sincerely held religious beliefs. For this to occur, the student must provide a written notice to the instructor of the course for which the student seeks said accommodation prior to the event.

The UVU campus has **a place for meditation, prayer, reflection, or other forms of individual religious expression** �️ **(https://www.uvu.edu/interfaith/reflectioncenter/index.html)** as is described on their website.

Academic Integrity

At Utah Valley University, faculty and students operate in an atmosphere of mutual trust. Maintaining an atmosphere of academic integrity allows for free exchange of ideas and enables all members of the community to achieve their highest potential. Our goal is to foster an intellectual atmosphere that produces scholars of integrity and imaginative thought. In all academic work, the ideas and contributions of others must be appropriately acknowledged and UVU students are expected to produce their own original academic work.

Faculty and students share the responsibility of ensuring the honesty and fairness of the intellectual environment at UVU. Students have a responsibility to promote academic integrity at the university by not participating in or facilitating others' participation in any act of academic dishonesty. As members of the academic community, students must become familiar with their **rights and responsibilities** �️ **(https://policy.uvu.edu/getDisplayFile/5bedd0ef7b23736d542192e3)** . In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, assessments, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Likewise, instructors are responsible to clearly state expectations and model best practices.

Further information on what constitutes academic dishonesty is detailed in **UVU Policy 541: *Student Code of Conduct*** �️ **(https://policy.uvu.edu/getDisplayFile/5bedd0ef7b23736d542192e3)** .

Definitions and Examples:

| Academic Integrity |
| Cheating |
| Plagiarism |
| Fabrication |

We would like to acknowledge the following institutions: Northeastern University, University of Jamestown, Washington University in St. Louis, and UVU's Woodbury School of Business. This statement uses or adapts parts of their academic integrity statements or used them for inspiration.

Title IX Syllabus Statement:

Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has experienced or experiences harassment or sexual assault including, dating and domestic violence, stalking or sexual exploitation, you are encouraged to report it to the Title IX Coordinator in the Office for Equal Opportunity and Affirmative Action, BA-203, (801) 863-7999. Please be aware that all faculty members and university employees are considered "Responsible Employees" and are required to report incidents of sexual misconduct and relationship violence and thus cannot guarantee confidentiality. Please know that you can seek confidential resources at UVU Student Health Services, SC-221, (801) 863-8876.

Please visit **https://www.uvu.edu/equityandtitleix** ⤷ **(https://www.uvu.edu/equityandtitleix)** for more information.

Policies and Success Strategies ⤷ **(https://www.uvu.edu/otl/students/policiesandprocedures.html)**

Campus Resources ⤷ **(https://www.uvu.edu/otl/students/campus_resources.html)**

UVU Academic Tutoring ⤷ **(https://www.uvu.edu/academictutoring)**

UVU Aviation Sciences Writing Standards ⤷ **(https://www.uvu.edu/aviation/student-resources/writing-standards.php)**

▮ Technology Support Services

✚ For 24/7 technical support contact **Instructure's Canvas Support Live Chat** ⤷ **(https://cases.canvaslms.com/liveagentchat?chattype=student&sfid=001A00000085cNxlAl)**

📞(385) 204-4930 (Available 24/7)

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