



AVSC 2180 – X51

For additional course information, including prerequisites, corequisites, and course fees, please refer to the Catalog: <https://catalog.uvu.edu/>

Semester: Fall
Course Prefix: AVSC
Course Title: Aviation Safety

Year: 2025
Course and Section #: 2180 X51
Credits: 3

Course Description

Teaches database language and calculation skills in aviation operations data query, analytics, and reporting. Uses off-the-shelf software to synthesize raw data into actionable knowledge. Examines the art of data visualization design and presentation through reports, dashboards, and stories.

Course Attributes

This course has the following attributes:

- ☐ General Education Requirements
- ☐ Global/Intercultural Graduation Requirements
- ☐ Writing Enriched Graduation Requirements
- ☒ Discipline Core Requirements in Program
- ☐ Elective Core Requirements in Program
- ☐ Open Elective

Other: *Click here to enter text.*

Instructor Information

Instructor Name: Gray, Jeremy K

Student Learning Outcomes

- Perform database management queries of an aviation operations data table.
 - Demonstrate knowledge of appropriate data calculation formulas used in a spreadsheet.
 - Create concise data visualizations with tables and charts in a spreadsheet.
 - Synthesize raw data into reports and dashboards using acceptable data visualization design principles.
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Course Materials and Texts

None.

Technology Tools

- Internet browsers such as Google Chrome or Firefox are preferred. Web browser compatibility can be found at [Canvas Questions and Answers](#).
- Microsoft Office (Word, PowerPoint, and Excel) is required. UVU students have free access to Microsoft 365. See [UVU Microsoft Office 365](#).

- A laptop or desktop computer with a camera and microphone may be required for Kaltura video submission assignments. Instructions for downloading and using Kaltura can be found in the modules where a camera and microphone are necessary. [Computer requirements for Kaltura Capture](#).

Course Requirements

Course Assignments, Assessments, and Grading Policy

For this three (3) credit-hour course students should expect to spend up to 9+ hours a week completing course activities. As a student, you can expect this course to challenge and engage you as a learner. You will be expected to: engage in weekly discussions, complete reading assignments, quizzes, and additional assignments as required, and succeed as a student in this course.

Third Party Usage and Privacy Policies:

- Modules 1-3 will require MySQL to complete the assignments: [MySQL Workbench](#).
 - [MySQL Legal Policies](#).
- Module 4-8 will require you to download the latest desktop version of Microsoft Excel. All UVU students have free access to Microsoft 365 Products, such as Excel: [Microsoft Office 365](#).
 - [Microsoft Privacy Statement](#).
- Modules 9 - 15 will require Tableau to complete the assignments: [Download the latest version of Tableau Desktop](#).
 - [Tableau Privacy Statement](#)

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

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](#) to read how Copyleaks cares about your rights and personal data.

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

Assignment Categories

Activity	Points
Assignments	590
Exams	200

Exams will administered online through Canvas. They are due on the date indicated and no later than 11:59 MST/MDT.

Required or Recommended Reading Assignments

None.

General Description of the Subject Matter of Each Lecture or Discussion

Module 1 - Introduction to Data Analytics

Module 2 - Query Data Sources

Module 3 - Manage Databases

Module 4 - Excel Basics

Module 5 - Building Models in Excel

Module 6 - Excel Tables

Module 7 - Excel Charts

Module 8 - Interpret and Report Data

Module 9 - Reporting Data

Module 10 - Visualization Design

Module 11 - Visual Analytics

Module 12 - Additional Visual Analytics

Module 13- Calculations

Module 14 - Dashboards and Stories

Required Course Syllabus Statements

Generative AI

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.](#), UVU Policy [541](#).

Using Remote Testing Software

☒ This course does not use remote testing software.

☐ This course uses remote testing software. Remote test-takers may choose their remote testing locations. Please note, however, that the testing software used for this may conduct a brief scan of remote test-takers' immediate surroundings, may require use of a webcam while taking an exam, may require the microphone be on while taking an exam, or may require other practices to confirm academic honesty. Test-takers therefore shall have no expectation of privacy in their test-taking location during, or immediately preceding, remote testing. If a student strongly objects to using test-taking software, the

student should contact the instructor at the beginning of the semester to determine whether alternative testing arrangements are feasible. Alternatives are not guaranteed.

Required University Syllabus Statements

Accommodations/Students with Disabilities

Students needing accommodations due to a permanent or temporary disability, pregnancy or pregnancy-related conditions may contact UVU [Accessibility Services](#) at accessibilityservices@uvu.edu or 801-863-8747.

Accessibility Services is located on the Orem Campus in BA 110.

Deaf/Hard of Hearing students requesting ASL interpreters or transcribers can contact Accessibility Services to set up accommodations. Deaf/Hard of Hearing services can be contacted at DHHservices@uvu.edu

DHH is located on the Orem Campus in BA 112.

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](#). 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](#).

Equity and Title IX

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

Religious Accommodation

UVU values and acknowledges the array of worldviews, faiths, and religions represented in our student body, and as such provides supportive accommodations for students. Religious belief or conscience broadly includes religious, non-religious, theistic, or non-theistic moral or ethical beliefs as well as participation in religious holidays, observances, or activities. Accommodations may include scheduling or due-date modifications or make-up assignments for missed class work.

To seek a religious accommodation, a student must provide written notice to the instructor and the Director of Accessibility Services at accessibilityservices@uvu.edu. If the accommodation relates to a scheduling conflict, the notice should include the date, time, and brief description of the difficulty posed by the conflict. Such requests should be made as soon as the student is aware of the prospective scheduling conflict.

While religious expression is welcome throughout campus, UVU also has a [specially dedicated space](#) for meditation, prayer, reflection, or other forms of religious expression.