AVSC 4388-110

Aviation Problems – Airbus and Boeing Computer Control Systems Differences Texas A&M University-Central Texas Fall 2023

COURSE DATES, MODALITY, AND LOCATION

August 28, 2023, to December 15, 2023

This is a 100% online course and uses the A&M-Central Texas Canvas Learning Management System [https://tamuct.instructure.com/].

INSTRUCTOR AND CONTACT INFORMATION

Instructor: V. Carson Pearce

Office: 302M Beck Family Heritage Hall

Phone: 254-519-5776

Email: carson.pearce@tamuct.edu

Office Hours

Readily accessible through Canvas Message, which is checked daily during the week and once a day on weekends. Will respond within 24-36 hours during the week and within 36 hours on the weekend. Be sure to allow plenty of lead time prior to a due date if you are asking about an assignment.

Mode of instruction and course access: This course uses the A&M-Central Texas Canvas Learning Management System [https://tamuct.instructure.com]. It is 100% online.

Student-instructor interaction

All contact and assignment submissions will be made via Canvas. Mail is checked several times during a day. Weekend response may take longer, so allow extra time for me to reply to your emails.

Emergency Warning System for Texas A&M University-Central Texas

SAFEZONE. SafeZone provides a public safety application that gives you the ability to call for help with the push of a button. It also provides Texas A&M University-Central Texas the ability to communicate emergency information quickly via push notifications, email, and text messages. All students automatically receive email and text messages via their myCT accounts.

Downloading SafeZone allows access to push notifications and enables you to connect directly for help through the app.

You can download SafeZone from the app store and use your myCT credentials to log in. If you would like more information, you can visit the <u>SafeZone</u> website [www.safezoneapp.com].

To register SafeZone on your phone, please follow these 3 easy steps:

- Download the SafeZone App from your phone store using the link below:
 - <u>iPhone/iPad</u>: [https://apps.apple.com/app/safezone/id533054756]
 - Android Phone / Tablet
 [https://play.google.com/store/apps/details?id=com.criticalarc.sa
 fezoneapp]
- Launch the app and enter your myCT email address (e.g. {name}@tamuct.edu)
- Complete your profile and accept the terms of service.

COURSE INFORMATION

Course Overview and description

Airbus Industries and Boeing Aircraft Corporation have divergent viewpoints on their aircraft computer-controlled flight systems and the "pilot-in-the-loop" responsibilities. This elective focuses on these differences and the implications associated with those differences as applied to pilot-in-command aircraft control authority.

Course Objectives

Upon completion of this course, the student will be able to:

- Analyze the distinctive differences in computer control authority between Airbus and Boeing aircraft.
- Detail the differences between pilot emergency responses in both aircraft during a flight control anomaly.
- Summarize the training processes pilots take while learning the different computer control processes for flight safety and operations.

Student Learning Outcomes (SLOs #1-#5)

The following numbered outcomes are for the entirety of the Professional Pilot degree or Aviation Management degree. Elements of each of the SLOs may be found in certain aspects of instruction. The Point Based Grade Component section shows which SLOs are accomplished through evaluation.

- 1. Explain the laws, regulations, and legal issues affecting the aviation industry.
- 2. Identify the issues affecting aviation safety and safety management.
- 3. Communicate proficiency in writing and oral presentations.
- 4. Evaluate the implications of an ethical dilemma from a variety of ethical frameworks.
- 5. Demonstrate management knowledge proficiency.

Competency Goals Statements (certification or standards)

The course is successful when the student has demonstrated through the final written assignment that they have developed an increased knowledge of how the design of computer control systems in Airbus and Boeing aircraft differ in approach, concept, construction, flight operations and emergency operations, and pilot training.

Required Reading and Textbook(s)

- 1. Online research only.
- Suggested Course Materials: <u>Publication Manual of American Psychological Association (7th ed.)</u>. American Psychological Association. ISBN 1433805618. <u>It is highly advisable</u> that that you keep this text following the course, as APA citations are the required citation method.

COURSE REQUIREMENTS

Research Paper: You will research the general body of online information as regards the effects of aggressing airline hiring from the general and corporate aviation world. The paper will use APA formatting. You will have several APA examples provided. This is **NOT** a Writing Intensive course. Use the writing style you have become familiar with in higher education report submissions. The report is to be no less than 12 pages in length, not counting the cover page, abstract, and reference pages. One documented session with the University Writing Center is required before the research paper is turned in.

AVSC 4388 Research Paper Rubric

Points	10	7	3	0
Quality of Case	Full use of APA	Partial use of	Does not follow	No paper.
Research	formatting,	APA formatting	APA formatting	
	clearly	with some detail	criteria. Many	
	communicated,	and some	errors in both	
	thoughtful detail	support	mechanics and	
	and points.	material.	sentence	
	Proper citation	Sentence	structure. Very	
	and attribution.	structure could	poorly written.	
	Proper	be improved.	Needs major	
	punctuation,	Editing would	overhaul. Does	
	sentence	improve the	not meet	
	structure and	assignment.	required page	
	spelling. No		count or format	
	editing or		guidelines.	

	revisions required.			
Relevance of Case Research	Submitted materials and	Submitted materials and	Submitted materials and	No paper. If a paper is
Conclusions	narrative show	narrative are	narrative shows	late, the grade
	logical linkage to the topic.	somewhat linked to the	little to no linkage to the	will be reduced per the posted
	Captures the	research paper	research topic.	research paper
	issue. Supports positions with	topic. Position, and argument	Unclear direction and	guidelines in the course.
	well-articulated	for that position	conclusion.	
	insights.	is plausible, but not totally clear.		

Tests: THERE IS NO FINAL COMPREHENSIVE EXAM.

Point based grade components:

Research Paper 100%

• SLOs 1 − 5

Grading scheme

- A 4.00 (90 +) Achievement that is outstanding relative to the level necessary to meet course requirements.
- B 3.00 (80-89%) Achievement that is significantly above the level necessary to meet course requirements.
- C 2.00 (70–79%) Achievement that meets the course requirements in every respect.
- D 1.00 (60–69%) Achievement that is worthy of credit even though it fails to meet fully course requirements.
- F 0.00 (<60%) Represents failure and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an "I" (incomplete).
- "I" (Incomplete). The "I" shall be assigned at the discretion of the instructor when, due to extraordinary circumstances, the student was prevented from completing the work of the course on time. The assignment of an "I" requires a written agreement between the

instructor and student specifying the time and way the student will complete the course requirements. In no event may any such written agreement allow a period of longer than one year to complete the course requirements. For graduate and professional students, an "I" is to remain on the transcript until changed by the instructor or department. For all other students, work to make up an "I" must be submitted within one year of the last day of final examinations of the term in which the "I" was given; if not submitted by that time, then the "I" will automatically change to an F. To obtain an incomplete you must have been doing passing work in the course.

Posting of Grades

- All student grades will be posted using the Canvas Grade book and students can monitor their grade status through this tool.
- Normal turn-around time for grading is five business days. If, however, unforeseen schedule interruptions occur, a notification will be sent stating the anticipated grading delay time.

Grading Policies

- Individual Performance: It is vital that you are active in the course and complete all work in a professional fashion. One of the biggest issues with student success in online courses is simply not submitting work on time. You are expected to read the chapters as assigned in the syllabus as well as read or view any supplemental resources that may be found in the Module content folders for that period.
- Quality Work: All work submitted for grading shall be of upper-level quality: Depth of analysis, grammatical structure, etc. Your work will be checked for plagiarism using online plagiarism assessment programs. Plagiarism will not be tolerated. Artificial Intelligence (AI) detection software will be used. If any portion of the assignment uses AI sources, it is an automatic failure of the course.
- **Identifying Submissions:** Submissions must clearly identify the student, course, and the title of the assignment, per standard APA guidelines.
- Written Assignment Requirements: Submissions will be in accordance with The
 Publication Manual of the American Psychological Association, 7th ed. All written work
 must be submitted utilizing Microsoft Word in either a .doc or .docx format. Students
 whose assignment includes plagiarism or use of Al will receive a 0 on the assignment
 and possible referral to Student Affairs. However, I reserve the right to reduce the
 penalty if I believe plagiarism was unintentional or very minor in impact.
- **Due Dates and Late Submissions:** The assignment instructions and deadlines are clearly laid out in the syllabus. Though some assignments are fairly involved, you do not have

more than one assignment due in any week. As such, it is expected that all work will be submitted on time, as timeliness is an important aspect of professional communications and behavior. If you encounter an issue, please let me know as soon as possible. It is much easier to discuss issues before due dates rather than after. Late work is not accepted.

Changes to Syllabus: This syllabus serves as an instructional and study planning
document. Although every effort will be made to maintain the schedule and activities
presented herein, it may become necessary during the semester to make changes to the
syllabus. In such events, changes will be announced, and students will receive written
notice as soon as possible. NOTE: The final research paper may be turned in early,
once course objectives are met.

COURSE OUTLINE AND CALENDAR

Weeks 1-4: August 28 – September 24

• Research paper introduction and explanation.

Weeks 5-8: September 25 – October 22

Research update.

Week 9-12: October 23 – November 19

Research update.

Week 13: November 20 – 26 November

• Thanksgiving Week. Continue research.

Week 14-15: November 27 – December 10

• Research update.

Week 16: December 11 to December 15

• Turn in research paper.

Important University Dates

August 28, 2023	Classes Begin for Fall Semester
September 13, 2023	Deadline to drop 16-week Classes with No Record (Census)
October 16, 2023	Advising Begins for Spring Semester
October 27, 2023	Deadline for Graduation Application for Fall Ceremony Participation

November 6, 2023	Registration for Spring Semester Begins
November 9, 2023	Registration for Spring Semester Deadline to Drop 16-Week Classes with a Quit (Q) or Withdraw (W)
November 10, 2023	Veteran's Day
November 23-24, 2023	Thanksgiving
December 1, 2023	Student End of Course Survey Opens
December 15, 2023	Fall Semester Ends
December 15, 2023	Fall Commencement Ceremony Bell County Expo 7 pm
August 28, 2023	Classes Begin for Fall Semester
November 6, 2023	Registration Opens for Spring Semester
November 9, 2023	Deadline to Drop 16-Week Classes with a Quit (Q) or Withdraw (W)
November 10, 2023	Veteran's Day
November 23-24, 2023	Thanksgiving

TECHNOLOGY REQUIREMENTS AND SUPPORT

This course requires the use of a computer of your choice that has the capability of capturing video and audio recording, internet access (recommend high-speed), and email functionality.

Technology Requirements

This course will use the A&M-Central Texas Instructure Canvas learning management system. We strongly recommend the latest versions of Chrome, Firefox, Edge, or Safari browsers. Canvas will run on Windows, Mac, Linus, iOS, android, or any other device with a modern web browser. Canvas no longer supports any version of Internet Explorer.

Canvas Support

Use the Canvas Help tab, located at the bottom of the left-hand menu, for issues with Canvas. You can search the support articles or use the Email, Call, or Chat buttons at the bottom of the support pop-up to contact the Canvas Help Desk.

For issues related to course content and requirements, contact your instructor.

Other Technology Support

For log-in problems, students should contact Help Desk Central, 24 hours a day, 7 days a week.

Email: helpdesk@tamu.edu
Phone: (254) 519-5466

Please let the support technician know you are an A&M-Central Texas student.

UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES

Warrior Center for Student Success

The Warrior Center for Student Success is a comprehensive academic support department at A&M-Central Texas, dedicated to fostering an environment of excellence and empowerment among its student body. The center offers a wide range of programs and services to ensure every student reaches their full potential, and is a haven for students seeking guidance, resources, and a strong support network to excel in their educational journey.

ADA Access and Accommodations: Texas A&M University-Central Texas ensures that students with disabilities have equal access to educational opportunities by providing appropriate accommodations and support services. If you believe you have a physical, learning or socioemotional disability requiring reasonable accommodations, please visit Access and Inclusion [https://www.tamuct.edu/student-affairs/access-inclusion.html] for more details or contact the Office of Access and Inclusion, WH-212; (254) 501-5836. Any information you provide is private and confidential.

Success Coaching and Peer Mentoring: Our experienced Success Coaches work one-on-one with students to develop personalized action plans, set academic goals, and build effective study strategies, time management skills, and resilience. Our Peer Mentors provide a valuable support system, offering guidance, encouragement, and a relatable perspective to help students navigate their academic and personal challenges. For more details call 254-501-5836 or 254-501-5928 or visit Academic Support [https://www.tamuct.edu/student-affairs/academic-support.html]. Click the link to schedule a session (virtual or in-person) with a success coach bit.ly/3q7uB50 or visit WH, 111.

Testing Services: We offer a secure and comfortable environment for students and members of the community to take courses and distance learning exams, as well as placement tests and professional certification exams. Our Testing Service also offers resources and support referrals for testing related challenges (test anxiety, learning disabilities, etc.) and supports all approved ADA accommodations. Call (254) 519-5830 or visit the Testing Center [https://www.tamuct.edu/testing-center/].

Tutoring and Supplemental Instruction Services: Our team of qualified Tutors and Supplemental Instructors assist students in various non-writing subjects, promoting academic comprehension and enhancing learning outcomes. Click the link to schedule a tutoring session with a TAMUCT tutor (virtual or in-person) or view tutor availability bit.ly/43Q6wNz. You may also chat live with a remote tutor 24/7 for a variety of subjects through our partnership with Tutor.com, an online tutoring platform that is free to all TAMUCT students. To learn more please visit Tutoring Services [https://www.tamuct.edu/student-affairs/academic-

support.html#tutoring] or call (254) 501-5836 or visit the Tutoring Hub in Warrior Hall, 111.

Academic Integrity

Texas A&M University-Central Texas values the integrity of the academic enterprise and strives for the highest standards of academic conduct. A&M-Central Texas expects its students, faculty, and staff to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. All academic misconduct concerns will be referred to the Student Conduct Office. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

For more information regarding the <u>student conduct process</u>, [https://www.tamuct.edu/student-affairs/student-conduct.html].

If you know of potential honor violations by other students, you may <u>submit a referral</u>, [https://cm.maxient.com/reporting.php?TAMUCentralTexas].

Drop Policy

If you discover that you need to drop this class, you must complete the <u>Drop Request</u> Dynamic Form through Warrior Web.

[https://federation.ngwebsolutions.com/sp/startSSO.ping?PartnerIdpId=https://eisprod.ec.tamuct.edu:443/samlsso&SpSessionAuthnAdapterId=tamuctDF&TargetResource=https%3a%2f%2fdynamicforms.ngwebsolutions.com%2fSubmit%2fStart%2f53b8369e-0502-4f36-be43-f02a4202f612].

Faculty cannot drop students; this is always the responsibility of the student. The Records and Admissions Office will provide a deadline on the Academic Calendar for which the form must be completed. Once you submit the completed form to the Records and Admissions Office, you must go into Warrior Web and confirm that you are no longer enrolled. If you still show as enrolled, FOLLOW-UP with the Records and Admissions Office immediately. You are to attend class until the procedure is complete to avoid penalty for absence. Should you miss the drop deadline or fail to follow the procedure, you will receive an F in the course, which may affect your financial aid and/or VA educational benefits.

Pregnant and/or Parenting Students Rights and Accommodations

Texas A&M University-Central Texas supports students who are pregnant, experiencing pregnancy-related conditions, and/or parenting. In accordance with requirements of <u>Title IX</u> and related guidance from US Department of Education's Office of Civil Rights, the Associate Dean in the Division of Student Affairs, (254) 501-5909, can assist students who are pregnant, experiencing pregnancy-related conditions, and/or parenting by provide flexible and individualized reasonable accommodations. Students should seek out assistance as early in the pregnancy as possible through the <u>Pregnancy & Parenting webpage</u> [https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html]. For more

information, please visit <u>Student Affairs</u> [https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html]. If you would like to read more about these <u>requirements and guidelines</u> online, please visit the website

[http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf].

<u>Title IX of the Education Amendments Act of 1972</u> specifically prohibits discrimination against a student based on pregnancy, childbirth, false pregnancy, termination of pregnancy, or recovery from any of these conditions

[https://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.html].

Students experiencing any form of discrimination due to any of these conditions are encouraged to reach out to the Title IX Coordinator, 254.519.5716, titleix@tamuct.edu, Founders Hall 317B, or the Associate Dean of Student Affairs, 254.501.5909, Warrior Hall 105.

Title IX Rights and Reporting Responsibilities

Texas A&M University-Central Texas is committed to creating a safe and open learning environment for all students. If you or another student has experienced any form of gender discrimination or sexual misconduct, including sexual harassment, sexual assault, dating/domestic violence, and/or sex-based stalking, help and support are available. Our university strongly encourages all members of our campus community to report incidents and seek support for gender discrimination and sexual misconduct through the Title IX Office. You may contact the Title IX Office at 254.519.5716, titleix@tamuct.edu, Founders Hall 317B, or learn more by visiting the Title IX webpage [https://www.tamuct.edu/compliance/titleix.html].

Please be aware that that under <u>Title IX</u>, <u>Texas Senate Bill 212</u>, and <u>System Regulation 08.01.01</u>, [https://policies.tamus.edu/08-01-01.pdf] all university employees are mandated reporters and are required to disclose information about suspected or alleged violations as listed above and defined in System Regulation 08.01.01. If the Title IX Office receives information about an incident, they will reach out to offer information about resources, rights, and procedural options as a member of the campus community. Although I have an obligation to report, you will, in most cases, control how your case will be handled. When working with the Title IX Office you will have access to resources and accommodations but also have the opportunity to express if you wish to move forward with an investigation. Our goal is to make sure you are aware of the options available to you as a student. Community members are not required to respond to this outreach.

If you or another student wishes to speak to a confidential employee who does not have this reporting responsibility, you can contact the Student (https://www.tamuct.edu/student-affairs/student-counseling.html], 254.501.5955, or swacc@tamuct.edu, located in Warrior Hall Room 207L or the Student Support Advocate, 254.501.5978 or ssa@tamuct.edu, located in founder Hall Room 317D.

University Library & Archives

The University Library & Archives provides many services in support of research across campus and at a distance. We offer over 350 electronic databases containing approximately 1,203,947

eBooks and 134,750 journals, in addition to the 96,879 items in our print collection, which can be mailed to students who live more than 50 miles from campus. Research guides for each subject taught at A&M-Central Texas are available through our website to help students navigate these resources. On campus, the library offers technology including cameras, laptops, microphones, webcams, and digital sound recorders.

Research assistance from a librarian is also available 24 hours a day through our online chat service, and at the reference desk when the library is open. Research sessions can be scheduled for more comprehensive assistance, and may take place virtually through WebEx, Microsoft Teams or in-person at the library. Schedule an appointment here

[https://tamuct.libcal.com/appointments]. Assistance may cover many topics, including how to find articles in peer-reviewed journals, how to cite resources, and how to piece together research for written assignments.

Our 27,000-square-foot facility on the A&M-Central Texas main campus includes student lounges, private study rooms, group workspaces, computer labs, family areas suitable for all ages, and many other features. Services such as interlibrary loan, TexShare, binding, and laminating are available. The library frequently offers workshops, tours, readings, and other events. For more information, please visit our Library website

[https://tamuct.libguides.com/index]

University Writing Center

Located in Warrior Hall 416 and online, the University Writing Center (UWC) at Texas A&M University—Central Texas (A&M—Central Texas) is a free service open to all A&M—Central Texas students. The face-to-face hours of operation are from 10:00 a.m.-5:00 p.m. Monday and Thursday in Warrior Hall 416. Online tutoring is available Monday thru Thursday from 10:00 a.m.-5:00 p.m. and from 6:00-9:00 p.m. and on Saturdays from 12:00-3:00 p.m.

Tutors are prepared to help writers of all levels and abilities at any stage of the writing process. While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. By providing a practice audience for students' ideas and writing, our tutors highlight the ways in which they read and interpret students' texts, offering guidance and support throughout the various stages of the writing process. In addition, students may work independently in the UWC by checking out a laptop that runs the Microsoft Office suite and connects to WIFI, or by consulting our resources on writing, including all of the relevant style guides. Whether you need help brainstorming ideas, organizing an essay, proofreading, understanding proper citation practices, or just want a quiet place to work, the UWC is here to help!

Students may arrange a one-to-one session with a trained and experienced writing tutor by making an appointment via WCOnline [https://tamuct.mywconline.com/]. In addition, you can email Dr. Bruce Bowles Jr. at bruce.bowles@tamuct.edu if you have any questions about the UWC, need any assistance with scheduling, or would like to schedule a recurring appointment with your favorite tutor.

OTHER POLICY STATEMENTS

A Note about Sexual Violence at A&M-Central Texas

Sexual violence is a serious safety, social justice, and public health issue. The university offers support for anyone struggling with these issues. University faculty are mandated reporters, so if someone discloses that they were sexually assaulted (or a victim of Domestic/Dating Violence or Stalking) while a student at TAMUCT, faculty members are required to inform the Title IX Office. If you want to discuss any of these issues confidentially, you can do so through Student Wellness and Counseling (254-501-5955) located on the second floor of Warrior Hall (207L).

Sexual violence can occur on our campus because predators often feel emboldened, and victims often feel silenced or shamed. It is incumbent on ALL of us to find ways to actively create environments that tell predators we don't agree with their behaviors and tell survivors we will support them. Your actions matter. Don't be a bystander; be an agent of change. For additional information on campus policy and resources visit the <u>Title IX webpage</u> [https://www.tamuct.edu/compliance/titleix.html].

Instructor Policies

Life happens. As such, if a student realizes that a posting, quiz, or assignment will be late due to unforeseen emergency or special circumstance, please notify the instructor as soon as is practical to assess the impact on the course. The instructor may grant extra time to complete an assignment within the confines of the 16-week course. However, if it becomes apparent that this policy is abused, or that the request was fraudulent, the instructor reserves the right to place an unfavorable grade for incomplete work.

Behavioral Intervention

Texas A&M University-Central Texas cares about the safety, health, and well-being of its students, faculty, staff, and community. If you are aware of individuals for whom you have a concern, please make a referral to the Behavioral Intervention Team. Referring your concern shows you care. You can complete the <u>referral</u> online

[https://cm.maxient.com/reporting.php?TAMUCentralTexas].

Anonymous referrals are accepted. Please see the <u>Behavioral Intervention Team</u> website for more information [https://www.tamuct.edu/bit]. If a person's behavior poses an imminent threat to you or another, contact 911 or A&M-Central Texas University Police at 254-501-5805.

Copyright Notice

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