AE 2611 A Syllabus

Technical Communications for Aerospace Engineers (Credits: 1)

Section A (CRN 24291)

Spring 2027

Instructor Information

Instructor: Christopher E. Carr

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General Course Information

Description

Catalog description: Development of technical communication skills required by aerospace engineers. Includes written, oral and visual communication methods.

In this course, students develop and advance the written, oral, and visual technical communication skills that aerospace engineers need to succeed in a professional environment. Topics include elements of effective technical writing, creating and evaluating effective graphics, report organization and composition, writing styles, effective memos and proposals, effective oral technical presentations, and the appropriate use of AI tools, including large language models, for technical communication.

Course Learning Outcomes

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

- Communicate technical ideas and concepts clearly and concisely in writing.
- Create appropriate graphics and visual aids for technical communication.
- Organize and produce effective technical reports, memos, and proposals.
- Prepare and deliver effective technical oral presentations.
- Use AI tools, including large language models, appropriately and responsibly to support technical communication.

Required Course Materials

There is no required textbook. All course materials will be provided on Canvas at no additional cost.

Any AI tools required for coursework will be available through Georgia Tech at no cost.

Grading Policy

Each graded component is listed with a range. The specific weight of each component, totaling 100%, will be announced on Canvas, and this syllabus updated to match, no later than the end of the first week of classes, before the add/drop deadline. After that, weights will not be changed in any way that lowers a student's grade.

Grading Breakdown

- Class participation (individual and group): 15–35%
- Assignments (individual and group): 50–80%
- Exams or individual assessments (oral), if given: 0–20%

Grading Scale: A: 90–100% | B: 80–89% | C: 70–79% | D: 60–69% | F: 0–59%

The instructor may lower, but will not raise, these cutoffs.

Description of Graded Components

- Class participation: Individual participation (for example, attendance and feedback surveys) and group participation (for example, discussions and team in-class exercises).
- Assignments: Individual assignments (for example, preparatory work that may be due before class, take-home quizzes, in-class quizzes and checks of understanding, writing exercises, graphics, memos, proposals, reports, and presentations) and group assignments (for example, collaborative reports and presentations). In-class quizzes and checks may be given regularly or without advance notice and may be graded for completion, graded for correctness, or ungraded. The lowest quiz score or scores may be dropped.
- Exams or individual assessments: The course is not currently planned to include traditional exams. Individual assessments may include oral explanations of submitted work. Any exam will be announced on Canvas at least two weeks in advance, and any final exam will follow the Institute final exam schedule. If none are given, this component carries 0% weight.

Additional Criteria for Successful Completion

Final course grades at Georgia Tech are awarded on a scale of A–F with no +/- grades. Students must earn a final grade of D or higher to receive credit for the course.

Course Policies

Attendance and Participation

This course may include in-person, synchronous online, and asynchronous activities, including team activities that are a critical part of the learning process. Attendance and active participation are expected and contribute to the participation grade; attendance may be verified through in-class work or post-activity feedback. In-class quizzes and checks may be given regularly or without advance notice. More than one unexcused absence may reduce the participation grade. Institute-approved absences (see the Institute absence policy) will not count against you, and reasonable accommodation will be made for illness and emergencies.

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review the Academic Honor Code and the Student Code of Conduct.

Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Use of AI Tools

AI tools, including large language models, may be permitted, required, or prohibited depending on the activity. The permitted uses for each lab, assignment, quiz, and assessment will be stated on Canvas or in the instructions for that activity; if no guidance is given, ask before using AI. When AI use is permitted, disclose it as instructed (for example, in an AI usage statement submitted with the work). Using AI where it is not permitted, or without the required disclosure, is unauthorized assistance under the Academic Honor Code. You are responsible for the accuracy and integrity of all work you submit, including any AI-assisted content.

To validate learning, the instructor may ask any student to explain or reproduce submitted work in person, individually or as part of a team. The outcome may be used to confirm or adjust the grade for that work.

Core IMPACTS

Not applicable.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services at (404) 894-2563 as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Student-Faculty Expectations

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. The Student-Faculty Expectations Agreement articulates some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Instructor Prerogatives

The instructor reserves the right to determine and adjust the content, structure, pedagogical approach, instructional methods, assessment strategies, and course materials for this course, consistent with the instructor's professional judgment and academic freedom, and in compliance with Georgia Institute of Technology and University System of Georgia policies and principles. This includes the right to modify these elements during the semester as needed to best achieve the stated course learning outcomes and to respond to the evolving needs of the discipline and students enrolled in the course.

The instructor may adjust the number, type, format, and timing of class activities, take-home and in-class quizzes and checks, assignments, projects, and other assessments during the semester, including the balance between take-home and in-class quizzes and checks, whether in-class quizzes and checks are announced or graded, whether exams or other individual assessments are given, and the role and permitted use of AI tools, within

the grading ranges stated above. Changes will be announced on Canvas with reasonable notice, and this syllabus will be updated so that the version posted at syllabus.gatech.edu matches the version provided to students.

AI Disclosure

AI tools were used to help prepare this syllabus. The instructor reviewed all content and is responsible for it.