

ECE 3005 Syllabus Fall 2026

ECE Professional and Technical Communication,

Section A WF 11:00-11:50am Klaus 1443

Section B TTh 8:25-9:15am Klaus 1443

Section C WF 8:25-9:15am Klaus 1443

Instructor Information

Instructor: Christina Bourgeois

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Office: Van Leer 370

Office Hours: M-F by appointment using SignupGenius. Contact me directly via email to set up a time to meet and to receive the link to SignupGenius.

General Course Information

Description

This course takes the innovative approach of applying the principles of Design Thinking to the writing process to empower ECE undergraduates with the communication skills they need to thrive in the 21st century. By teaching students to view documentation and presentation in terms of problem framing and problem solving and by replacing the outmoded language of composition (audience, rough draft) with the language of engineering and entrepreneurship (end-user, prototype), this course helps ECE students see the importance and value of communicating effectively. The learning/teaching environment in ECE 3005 is interactive, individualized, and personalized. Because they have the freedom to choose the topic and the type/format/mode of communication for the two major deliverables, students produce relevant, user-focused, results-oriented documents and presentations.

Each student will be assigned a GTA personal writing consultant. Your GTA will evaluate and provide feedback on all assignments and will meet individually with you in face-to-face consultations throughout the semester to review your documents and presentations.

All GTAs hold office hours in the ECE Communication Studio, VL 448 & 449.

Objectives

This course provides undergraduate ECE students with the tools necessary to communicate effectively and prepares them for more advanced writing and presentation tasks required by their academic programs and professional communities. Students practice the conventions of technical writing, with specific attention to electrical and computer engineering documentation standards. Students learn to navigate the writing process by understanding end-user, context, and purpose in order to produce a variety of document types. Emphasis is also placed on teaching students how to develop and deliver formal and informal oral presentations in a variety of mediums. Students identify and propose an independent project on an approved topic and then complete communication deliverables appropriate to the project.

Outcomes

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

- Employ the basic conventions of technical writing and the discipline-specific features of engineering documents.
- Identify the structure, organization, and content of common engineering documents: proposals, technical reports, instruction guides, comparison papers, resumes, cover letters.
- Work individually to write documents with end-user appropriate content and proper formatting, spelling, punctuation, and grammar.
- Integrate text and visuals to clearly convey information.
- Revise documents for content, organization, and writing style.
- Work individually to develop and deliver effective oral presentations, incorporating significant, end-user appropriate content using standard presentation software.
- Provide meaningful, constructive feedback to others on their writing and speaking abilities.

Catalog Description

Written, oral, and visual communication skills required by engineers. Prepares students for advanced communication tasks required in academic and professional settings. ECE 1100 and ECE 2031 are pre-requisites for ECE 3005.

Credit: 1 Hour, Pass/Fail

One-hour lecture (1-0-1)

This is a special topics course that counts toward the junior-level communications requirement for the undergraduate EE and CmpE degree programs. The grades recorded for Pass/Fail courses are “S” for “Satisfactory” or “U” for “Unsatisfactory” and are not included in the calculation of the GPA.

- The course is required for all EE and CmpE transfer students who did not take ECE 2031 at Georgia Tech.
- The course is an option for EE and CmpE students who prefer to satisfy the junior-level communications requirement in a traditional classroom setting and who are not eligible for ECE 3006.

This course was intentionally designed as a **non-letter grade degree requirement** for a variety of reasons:

1. Research indicates that the benefits of pass/fail grading include a greater focus on learning rather than on higher-grade achievement, reduced stress, enhanced well-being, and a shift from a competitive learning environment to an active/cooperative environment.
2. A pass/fail system for experiential education has the potential to promote intrinsically self-directed learners motivated through personal growth and development. Newer pedagogy supports the concept of engineers as lifelong learners and emphasizes the importance of self-directed learning of which intrinsic motivation (engaging in learning based on interest/enjoyment/need) takes precedence over extrinsic motivation (completing tasks based on external rewards such as grades).
3. Pass/fail grading allows for evaluation of the learner through assessing competency of an outcome rather than earning a grade, which enables students to focus on knowledge acquisition and skills application rather than achievement of a specific grade.
4. Pass/fail evaluation fosters more robust and useful feedback, which aligns more closely with real-world performance assessment.

Course Policies

Attendance and/or Participation

Attendance is expected and closely monitored in an effort to encourage active participation and to identify students who may be struggling or at-risk. **I make a concerted effort to know every student by face and name, so when you do not attend class, I get concerned because a vital member of the group is missing.** Since there only 15 class meetings, **only two (2) absences are permitted to pass the course. Late arrival is time stamped and counted as a partial attendance. Attendance is logged as follows: 1 = Present; .5 = Late; 0 = Absent.** Students who have (or anticipate having) more than two absences or who are unable to arrive on time will need to retake the course when they are able to attend class on a regular basis. **Avoid arriving late to class** because it is unprofessional and disruptive.

Attendance is recorded for every lecture with a note card system in which students print and sign their name, write the date, and provide feedback (suggestions, comments, questions) about the content covered in class that day. Any attempt to forge a note card or engage in **dishonest conduct will be reported to the Dean of Students and will result in failing** the course.

Required Course Assignments, Consultations, and Homework

Students must satisfactorily complete all assignments, attend the required consultation, and turn in all homework assignments to pass the course: **Note:** A = Assignment

- A1 Career Portfolio
- A2 Technical Documentation
- A3 3MT Style Technical Presentation
- Required Consultation

Late Assignments & Missed Appointments

Students are expected to submit all work by the specified deadlines. Unless pre-approved by the instructor, **late work will not be accepted and will result in a failing grade.**

Students are required to sign-up for and attend two face-to-face consultations throughout the semester. Unless there is an extenuating circumstance that has been discussed with the instructor (and proper documentation has been presented), **missed appointments will result in a failing grade.**

Individual Consultations

Students are required to work one-on-one with the course instructor and/or GTAs to prepare technical documents and presentations. These one-on-one sessions/consultations are typically 30 minutes. The purpose of the consultation is to provide individual and personalized instruction and feedback to students on specific documents and presentations. **Consultations and presentations will take place in the ECE Professional Communication Studio located in Van Leer 448 & 449.**

Pen & Paper Writing Assignments

Students will use pen and paper to generate content for all required assignments during in class writing workshops. Handwriting and penmanship are not graded. The purpose of using pen and paper is to ensure that students are generating ideas and content from their own recall of information without the use of AI or computer assisted technology. Voice-to-text, laptops, tablets, phones, and other electronic devices will not be allowed during these writing sessions. Grammar, punctuation, and mechanics can be edited after the fact. The purpose of pen and paper writing exercises is to practice and develop critical thinking and knowledge recall in an effort to strengthen effective communication skills.

Grading and Evaluation

ECE 3005 is a 1 credit hour, pass/fail course. To receive credit and pass the course, students must satisfactorily fulfill the following requirements:

- No more than two (2) absences or late arrivals; late arrival to class is counted as partial absence.
- Participate in class discussions and activities.
- Create new, original content and work on a current, in-progress, “live” document to fulfill A2.
- Complete all three (3) assignments with a score of “effective”.
- Attend the required individual writing consultation.
- Complete all assignments (written and oral) on time (on or before the specified deadlines).
- Complete all homework assignments and bring required materials to class when specified.

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. Students should review [Georgia Tech's Honor Code](#) and the student [Code of Conduct](#).

Any student suspected of cheating or plagiarism 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. Suspected violations of academic integrity may be handled through [Faculty Conference Resolution](#), or students may have their case heard directly by the [Office of Student Integrity](#).

Although students are encouraged to work together to learn the course material, graded class work must be completed individually. Specifically, while they are permitted to discuss the homework and project assignments with other students in the class, **they must design, write, and edit their documents and presentations individually. They must not accept/copy/solicit writing from or generate writing with any AI assistant or any person, except the instructors/TAs solution or any graded work before or after the due date.**

Accommodations for Students with Disabilities

Students with learning needs that require special accommodation should [contact the Office of Disability Services](#) (404-894-2563) as soon as possible to make an appointment to discuss their special needs and to obtain an accommodations letter. When the instructor is notified of the student status, the instructor will assign a brief questionnaire to fill out on Canvas, which should provide all needed information. The student should contact the instructor if they believe there are additional items to discuss regarding their learning needs. Also, note that accommodations are given as they arise. As an exam approaches, for example, students who utilize the Testing Center must request accommodations according to their requirements. Merely having discussed accommodations at the start of the semester is not sufficient.

Student-Faculty Expectations Agreement

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](#) articulate some basic expectations that faculty and students have for each other. In the end, simple respect for knowledge, hard work, and

cordial interactions will help build the environment we seek. Students are encouraged to remain committed to the ideals of Georgia Tech while in this class.

Inclement Weather and Digital Learning Days

In the event of a campus closure due to inclement weather, lectures will be delivered remotely, in accordance with Georgia Tech policies that were [revised in August 2023](#). Refer to the [Campus Procedures for Hazardous Weather](#).

Backing up Work

It is each student's responsibility to create backups of work performed in this class. Lost work or time due to computer/disk/web server failures is not a valid excuse for late submissions.

Campus Resources for Students

A list of resources for undergraduate students' academic success and information about advising can be found at [Success at Tech](#).

Student Well-Being:

At Georgia Tech, we are concerned about your overall physical, social, and mental well-being. A [comprehensive list](#) of wellness related resources has been compiled and maintained by the Office of the Vice President for Student Engagement and Well-being.