Computing for Engineers

Course prefix: CS

Course number: 1371

Section: 01

CRN
31334 32480

Instructor first name: Idel

Instructor last name: Martinez

Semester: Spring

Academic year: 2026

Course description:

This course is designed to introduce you to problem-solving, designing, and analyzing algorithms with the MATLAB programming language. The course assumes no prior knowledge of programming skills. At the end of this course, students will develop a beginner's skill level for deriving algorithms, as well as become familiar with MATLAB. To achieve this, the course will use real-world data to guide students through understanding and applying it to achieve a goal, and then output or display the results in an appropriate format.

Academic honesty/integrity statement:

Students are expected to maintain the highest standards of academic integrity. All work submitted must be original and properly cited. Plagiarism, cheating, or any form of academic dishonesty will result in immediate consequences as outlined in the university's academic integrity policy. Every Student is expected to read, understand, and abide by the Georgia Tech Academic Honor Code.

As a programming course, discussions about course sessions, programming concepts, and algorithms are encouraged. Assignments and practice problems are collaborative, for which students can collaborate by talking through problems, discussing the MATLAB programming language, etc. However, the work submitted by a student must be their own. Students should not copy or send code to peers, but high-level discussions on their solutions are permitted. Additionally, students should not copy & paste from/to other sources such as Stack Overflow, AI agents, or other platforms that would compromise the integrity of their work or violate the course's guidelines on original submission. Students may use these resources for support, such as further inquiring about algorithms, programming language

syntax, etc., but they should be used after first attempting the problem independently. The goal of these resources should be to supplement students' learning process and practice good programming practices, not replace their learning process.

We analyze assignment submissions with Moss, "a system for detecting software similarity," and manually analyze flagged cases. Additionally, we cross-check solutions to those generated by AI agents, and search for defined "tells." Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity (OSI), which will investigate the incident and identify the appropriate penalty for violations. However, in this course, you will be given a 72-hour period to come forward and admit to cheating before you are reported to OSI.

Core IMPACTS statement(s) (if applicable):

This is a Core IMPACTS course that is part of the Mathematics & Quantitative Skills area. Core IMPACTS refers to the core curriculum, which provides students with essential knowledge in foundational academic areas. This course will help master course content, and support students' broad academic and career goals.

This course should direct students toward a broad Orienting Question: **How do I measure the world?**

Completion of this course should enable students to meet the following Learning Outcome: Students will apply mathematical and computational knowledge to interpret, evaluate, and communicate quantitative information using verbal, numerical, graphical, or symbolic forms. Course content, activities, and exercises in this course should help students develop the following Career-Ready Competencies:

- Information Literacy
- Inquiry and Analysis
- Problem-Solving