

GEORGIA INSTITUTE OF TECHNOLOGY
George W. Woodruff School of Mechanical Engineering
ME 2110 – Creative Decisions and Design, Fall 2026

Lecture: Monday and Wednesdays at 8:25AM-9:15AM, IC 103
Studio: Timings noted in table below, MRDC 2101
Coordinator: Dr. Thomas Kurfess, Callaway / GTMI 313, kurfess@gatech.edu
Office hours: Callaway / GTMI 313, Mondays 12-1PM
Studio TAs: TBD
 TBD

Studio Professors:

Sec.	Day/Time	Instructor	E-mail
A01	T – 8:00 AM – 10:45 AM	Ms. Kristi Mehaffey	kristi.mehaffey@me.gatech.edu
A02	T – 12:30 PM – 3:15 PM	Dr. Levent Degertekin	levent.degertekin@me.gatech.edu
A03	T – 3:30 PM – 6:15 PM	Dr. Levent Degertekin	levent.degertekin@me.gatech.edu
A04	T – 6:30 PM – 9:15 PM	Dr. Michael Helms	michael.helms@me.gatech.edu
A05	W – 3:30 PM – 6:15 PM	Mr. Ashley Andrews	ashley.andrews@me.gatech.edu
A06	R – 12:30 PM – 3:15 PM	Dr. Kyriaki Kalaitzidou	kyriaki.kalaitzidou@me.gatech.edu
A07	R – 3:30 PM – 6:15 PM	Dr. Levent Degertekin	levent.degertekin@me.gatech.edu
A08	F – 8:00 AM – 10:45 AM	Dr. Kyriaki Kalaitzidou	kyriaki.kalaitzidou@me.gatech.edu
A09	R – 6:30 PM – 9:15 PM	Mr. Clint Rinehart	clint.rinehart@me.gatech.edu
A10	W – 6:30 PM – 9:15 PM	Dr. Michael Helms	michael.helms@me.gatech.edu
A11	R – 8:00 AM – 10:45 AM	Dr. Kinsey Herrin	kinsey.herrin@me.gatech.edu
A12	F – 3:30 PM – 6:15 PM	Dr. Dooroo Kim	dooroo@gatech.edu

Course Objectives: To learn the fundamental procedures for solving engineering design problems; the essential details of analyzing, synthesizing, and implementing design solutions with flexibility, adaptability, and creativity; the techniques which allow an engineer to tackle new, unsolved, open-ended problems. To learn by doing through team and individual projects and assignments. To learn and practice effective written, oral, and visual technical communication through reports and presentations.

Course Delivery: Lectures in the main section (Section A) will meet synchronously in-person at the above location and time unless otherwise specified. The main lecture section (Section A) will utilize Canvas for posting of lecture material, assignment descriptions and other detail regarding the course. Studio sections will be meet synchronously in-person at the above location. All assignments will be turned in to the respective studio section's (Sections A1-A12) Canvas websites.

Recommended Reference Materials (not required):

1. W. Singhose, J. Donnell, [Introductory Mechanical Design Tools](#).

Technology Requirements: You must have SolidWorks 2025 installed or access to it via GT's myCloud. In this course, we will also be utilizing Inkscape, Trotec JobControl, Cura, and Arduino IDE. Some of these may be useful for you to have on your personal machines if possible but will also be available in the IDEA laboratory.

Course Assessment (100%):

1) Class Participation	10%
2) Studio Preparedness	10%
3) Lab Stewardship	5%
4) Homework	10%
5) First Studio Report	5%
6) Introductory Project and Presentation	10%
7) Major Project	50%
Design Report and Presentation	(10%)
Interim Report and Presentation	(10%)
Sprint 1 Machine Performance	(1%)
Sprint 2 Machine Performance	(2%)
Sprint 3 Machine Performance	(2%)
Final Machine Performance	(5%)
Design Review Deliverables	(5%)
Final Report and Presentation	(15%)
8) Safety Training and IDEA Lab User Agreement	P/F*
9) Give at Least 1 Oral Presentation	P/F*
10) Mechatronics and Fabrication Task Completion	P/F*
11) Participate in Design Review / Final Competition	P/F*

***Note:** Receiving an F for a P/F item will result in 1 letter grade reduction in your final grade for every F received.

Design Review and Final Competition: The design review is a live event where your team will present their robot designs to a judging team to evaluate your team's design in multiple categories. This will also involve a competition-style event of team robots. These are set to occur from 430-9PM on Friday November 13. All students must attend.

Reports and Presentations: All assignments must have a cover page and be labeled with your name, section instructor, section TA, and section time. When doing group work, all names must be on the assignment and each group member will receive the same grade. Late work is NOT accepted.

Class Participation and Studio Preparedness: Class participation grades will be based on your relative performance on your teams, this measured using structured peer evaluations as well as instructor evaluations of your participation in studio. Studio preparedness will be evaluated as determined by section instructor.

Lab Stewardship: Safe lab practices and respect for the open studio space is of critical importance to maintaining a safe working environment for all students and employees. It is also the hallmark of operational excellence in a professional shop environment. Violations of safe lab practices as explained during IDEA lab training including, but not limited to, tool misuse and lack of shop cleanliness, failure to follow laboratory guidelines, will be noted. Each violation will count as 1% demerit on the final grade. Students may earn back credit lost for IDEA lab violations by participating in positive lab stewardship activities (e.g., shop cleaning tasks, shop improvement activities). Students can consult the head TAs or TA on duty for these positive lab stewardship activities. The number of demerits that may be earned back through these activities are limited to 2 in total.

Attendance Policy: You will be working on teams on projects for this course. Due to the size of this class, as well as the critical nature of the material (including safety issues), it is important that you are present to stay up to date with the course. Furthermore, this is a common time to touch base with your teams. Therefore, if you miss or are late to studios/lecture, your teammates may be inclined to give you poor reviews that will adversely affect your grade. Therefore, you are required to attend **all lectures and all studio sessions. Missing studios will result in a final grade penalty where 1 missed studio equates to 1 letter grade reduction. Missing lectures will result in a final grade penalty as well, where 2 missed lectures = 1 letter grade reduction, 3 missed lectures = 2 letter grade reduction, and so on.** In particular, if you arrive to studio/lecture late, you will be marked as tardy. For studio, late is defined as the time between the start of studio and 15 minutes past the studio start. For lecture, late is defined as the time between the start of lecture and 5 minutes past the lecture start. After these time

durations, you are considered absent. Two tardy marks are equivalent to 1 missed studio/lecture. We will round down to the lowest integer when determining if your combination of tardy and absent marks will affect your grade. Attendance will be taken indirectly through virtual polling and/or directly by studio TA. In the case of a personal emergency or Institute-approved absence, please consult the information on the Division of Student Life website (<http://studentlife.gatech.edu/content/class-attendance>) and follow the appropriate steps. The Dean of Students Office will make the decision and contact your professor stating what (if any) accommodations will be provided. Please notify your instructor and TA immediately if you have any COVID-related illness as well.

Absence Due to Illness:

In the event of illness that prevents a student from attending lecture or studio such as a positive COVID test result, consult the information on the Division of Student Life website (<https://studentlife.gatech.edu/resources/class-attendance>) and follow the appropriate steps. The Office of the Dean of Students will reach a decision and contact your professor stating what (if any) accommodations will be provided. For an absence that occurs during this course to be excused without penalty, notification/verification from the Office of the Dean of Students or a valid doctor's note must be provided to your instructor in a timely manner. Students who are absent for their studio section should contact their section instructor and TA to reschedule the work that was missed.

Mental Health & Wellness: As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, depression, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. GT offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know is experiencing any of the issues noted above, consider utilizing the confidential mental health services available on campus. I encourage you to reach out to GT Center for Mental Health Care & Resources (<https://mentalhealth.gatech.edu/>) or the Counseling Center (www.counseling.gatech.edu, 404-894-2575) for support. An on-campus counselor or after-hours services are available to assist you.

Problem Escalation: The course coordinators and studio instructors are available by e-mail or office hours or if you need assistance and can schedule appointments outside of office hours. If you need help and/or have a problem, the best course of action is to first address the issue within your studio section with your TA and/or your studio professor. This is especially true for grading assignments and reports, which is controlled by your studio professor. For course-level questions and concerns, the head TAs and course coordinators are here to help.

Academic and Research Honesty/Integrity Statement

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 [Student Code of Conduct](#) and the [Academic Honor Code](#), especially [Appendix A: Graduate Addendum to the Academic Honor Code](#).

Allegations of scientific or scholarly misconduct are handled in accordance with the procedures outlined by the [Policy for Responding to Allegations of Scientific or Other Scholarly Misconduct](#).

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 [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.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the [Office of Disability Services](#) (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 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 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

Use of AI

Students may use AI tools only to review or check their own completed work, such as verifying that an assignment meets stated requirements, checking clarity, organization, grammar, formatting, or identifying potential errors or omissions. AI may not be used to create, draft, generate, or substantially shape any part of an assignment, including text, calculations, analyses, figures, slides, or conclusions. All ideas, problem solving, structure, and content must originate from the student. Students remain fully responsible for the accuracy, originality, and integrity of all submitted work. This policy applies to all course work, including homework, reports, and presentations.

NOTE: Students cannot withdraw from this class after phase 2 registration closes.