COE 2001 Statics

Summer 2026

Instructor: Arash Yavari

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Office Location: Mason Building, Room 4164

Course Description: This course introduces the fundamentals of engineering statics. Topics include forces, moments, equilibrium of particles and rigid bodies, free-body diagrams, structures, internal forces, friction, centroids, and moments of inertia. The course emphasizes problem solving and physical interpretation of equilibrium conditions in engineering applications.

Course Learning Outcomes: By the end of the course, students should be able to:

- draw correct free-body diagrams for particles and rigid bodies,
- compute forces and moments in two- and three-dimensional statics problems,
- apply equilibrium equations to analyze particles, rigid bodies, frames, and trusses,
- determine internal forces in structural members,
- analyze problems involving friction,
- compute centroids and moments of inertia of simple bodies and areas.

Required Course Materials: *Engineering Mechanics: Statics*, 9th Edition, by J. L. Meriam, L. G. Kraige, and J. N. Bolton.

Course Outline: All chapters of the textbook will be covered.

Prerequisites: Some familiarity with linear algebra, calculus, and ordinary differential equations.

Grading Policy:

- Weekly homeworks: 10% (one homework will be dropped)
- Attendance: 10% (each unexcused absence will result in a 20% deduction from the attendance grade)
- Three midterm exams: 25% each (one midterm will be dropped)
- Final exam: 30%

Please scan your homework and upload it as a single PDF file on Canvas every Thursday before 5:00 PM.

Attendance Policy: Attendance at all lectures is required. Excused absences must be cleared with me in advance by email. If you need to reschedule any test, you must contact the Dean of Students and obtain official approval from their office.

Academic 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. For information on Georgia Tech's Academic Honor Code, please visit `http://www.catalog.gatech.edu/policies/honor-code/` and `http://www.catalog.gatech.edu/rules/18/`. Any student suspected of cheating or plagiarism on a quiz, exam, or assignment will be reported to the Office of Student Integrity, which investigates such incidents and determines the appropriate penalty for violations.

Artificial Intelligence Policy: Unless explicitly stated otherwise for a particular assignment, any use of generative AI tools must be disclosed clearly and may not replace your own understanding, reasoning, or written work. Students remain fully responsible for the accuracy, originality, and completeness of all submitted work.

Accommodations for Students with Disabilities: If you are a student with learning needs that require accommodation, contact the Office of Disability Services at (404) 894-2563 or `http://disabilityservices.gatech.edu/` as soon as possible to obtain an accommodation letter. Please also email me as soon as possible so that we can discuss your needs.