

COE 3001 – Mechanics of Deformable Bodies, Sections H & I

Section Syllabus | Fall 2026 (v0)

Section H: T,R 9:30 AM – 10:45am | Manufacturing Research Center 101

Section I: T,R 2:00pm – 3:15pm | Kendeda 230

Instructor: Dr. Zach Brunson (zachary.brunson@me.gatech.edu)
Office: AMPF 2035
Office Hours: TBD
Or email for appointments

Text: *(required)*
Mechanics of Materials,
Barry J. Goodno and James M. Gere, 9th edition, Cengage Learning, 2017
ISBN: 978-1337093347

(recommended)
Mechanics of Materials,
R. C. Hibbeler, 11th edition, Pearson, 2022
ISBN: 978-0137605583

Catalog Description

Stress and strain analysis applied to beams, vessels, pipes, and combined loading; stress and strain transformations; beam deflection; column buckling. 3 hours lecture; 3 credit hours.

Prerequisites

MATH 2552/2562 (Differential Equations)
COE 2001 (Statics)

Learning Outcomes

1. Develop an ability to visualize and understand the fundamental behavior of structures and solids.
2. Develop an understanding of assumptions and idealizations commonly used for analysis of structures and solids.
3. Learn methods of computing stresses in several types of structural and machine components.
4. Learn the fundamental approach for determining internal forces and stresses in indeterminate structures: use of equations of equilibrium, force-temperature-deformation relations, and expressions for the geometry of the deformations.
5. Develop a basic knowledge of approaches to design of structural and machine components.

Assignments

Homework assignments will be provided throughout the course, corresponding to material covered in lecture and related to material that could be covered on midterm exams. These assignments will be due as indicated in the course schedule unless otherwise specified. The solutions will be posted the day following the indicated due date unless otherwise specified.

Quizzes are daily in-class assignments that may fall into one of three categories:

1. Individual Quiz at the beginning of the class period (up to 15 minutes long) --- These individual quizzes will be based on the material covered in the previous 1-2 lectures. These quizzes will be open book and open notes, but not open neighbor - collaborating with others is a violation of the Georgia Tech Honor Code.
2. In-Class Problem(s) --- These will come from in class activities and/or assignments where you may be allowed (or even encouraged) to work in small groups. These assignments may require a single submission from each

group (with all members names listed) or individual submissions.

3. Exam Review/Team Problem Presentations --- These will be assigned prior to the exam review date, completed as a team, and presented during class. Presentations will be 3-4 minutes long and every team member will be expected to participate in the presentation. These will each carry the weight of 3 quizzes.

There will be three midterm exams completed during class time and a cumulative final exam.

Grading

Homework Assignments	15%
Quizzes (4 lowest are dropped)	15%
3 Midterm Exams (15% each)	45%
Final Exam (can replace lowest midterm)	25%

Grading Policy

If you feel a grade does not accurately reflect your work on any problem/assignment, you may request it to be re-graded. A request for re-grading must be submitted in writing in the form of a word-processed memo within one week following the date the grade was received by the student.

Final Grade

Final grades will be assigned on a straight, whole letter grade scale (no $\pm$ grades) as indicated below, but the instructor reserves the right to curve this scale downward if warranted:

A = 90 to 100; B = 80 to 89.9; C = 70 to 79.9; D = 60 to 69.9; F < 60.

Active Participation

Although attendance is not mandatory, students should actively participate in the class if they are to attain maximum success in this class. Occasionally, small group activities will be provided in the form of exercises, problems, discussions, etc. which may contribute to your overall grade in the form of a quiz grade. Additionally, individual quizzes may be administered with or without prior warning at the beginning of some lectures which will contribute to your overall grade in the form of a quiz grade.

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 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.

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 Use of Mobile Devices in the Classroom

Use of laptops, tablets, cellphones during in-person sessions should be for the sole purpose of taking notes, taking exams/quizzes, or participating in the class discussions.

Extensions, Late Assignments, and Rescheduled/Missed Exams

Make up of quizzes and exams are permissible for approved Institute activities, medical emergencies, and participation in particular religious observances. It is the student's responsibility to request these accommodations in accordance with Georgia Tech's policy. Georgia Tech's policy on excused absence is available here: <http://www.catalog.gatech.edu/rules/4/>

Absence from any exam or quiz without prior approval from the instructor or without an excused absence note from the office of the Dean of Students will result in a zero point for that test. Excused absences will result in make-up of the midterm exams or the final exam and an excused grade for the daily quiz.

Excused quiz grades will be available only for a maximum of 6 missed quizzes. An excused grade for a daily quiz removes that specific quiz from the overall course grade assessment.

Collaboration and Group Work

You may collaborate with other students to solve the homework problems, during class discussions, and to prepare for the exams. For the exam reviews, you are expected to collaborate with a small team of fellow students to prepare and deliver a presentation. Cheating off of another person's individual quiz, midterm exam, or final exam is unethical and unacceptable. Cheating off of anyone else's work is a direct violation of the GT Academic Honor Code, and will be dealt with accordingly. Use of services such as Chegg during quizzes, midterm exams, or the final exam is also a violation of the GT Academic Honor Code.

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. See <http://www.catalog.gatech.edu/rules/22/> for an articulation of 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.