

Instructor

Lauren K. Stewart, PhD, PE

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Office Hours: Mason 3141A Tuesdays 10 - 11 am, Thursdays 3:00 - 4:00 pm, or by appointment

Coffee/Lunch Hours: Times and locations announced on Canvas

Teaching Assistants

Noel Flores, nflores@gatech.edu

Office Hours: Mason 1201B, Wednesdays 10am - noon, or by appointment

Diwakar Singh, dvsingh@gatech.edu

Office Hours: Mason 1201B, Mondays 10am - noon, or by appointment

Importance of Course

This is one of the most important courses for future engineers. Designing a useful, safe, and efficient structure or machine requires an engineer who has a mastery of the theory and application of the mechanics of materials.

Course Objectives

- Develop an ability to visualize and understand the fundamental behavior of structures and solids
- Develop an understanding of assumptions and idealizations commonly used for analysis of structures and solids
- Learn methods of computing stresses in several types of structural and machine components
- 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
- Develop a basic knowledge of approaches to design of structural and machine components

Pre-requisites/Co-requisites

COE 2001 and MATH 2403, 2413 or 24X3.

Textbook

Mechanics of Materials, 9th Edition, James M. Gere and Barry J. Goodno, Cengage

Website

The website for the course is <https://canvas.gatech.edu>. Students are expected to check regularly for announcements and are responsible for the material posted. Example problems and material from the lectures are posted regularly. I own the copyright of the course materials I create (such as my exams, old and new) and as a result, students are not allowed to reproduce, distribute or publicly post their course materials without my express written permission.

Grades

The final grade will be determined from the following grading scheme:

- Statics Quiz (5%)
- Homework (15%)
- Tests (55%)
- Final (25%)

Exams

The exam schedule for Spring 2019 is as follows:

- Statics Quiz - January 17th
- Test 1 - February 12th
- Test 2 - March 14th
- Test 3 - April 18th
- Final - May 2nd (2:40 - 5:30 pm)

All exams are closed book, closed notes, and in-class. The course equation sheet will be provided for each of the three tests and the final exam.

Cheating off of another student's exam is unethical and unacceptable. Cheating is a direct violation of the GT Academic Honor Code, and will be dealt with accordingly per Georgia Tech policy. Other examples of cheating include, but are not limited to, bringing unauthorized material to exam, collaborating or sharing notes, talking during exam and using cellphones.

Course Conduct

The Georgia Tech Honor Code is the standard of conduct for this course. The Honor Code is available at <http://www.honor.gatech.edu/>. You are allowed to work in groups on all homework, but any work you turn in must be written in your own hand and cannot be a direct copy of any other student's work. In-class tests and exams are to be your own work.

Attendance

This will be an active classroom, where you will be expected to participate. I have noticed a drastic difference in the exam performance between students who regularly attend class and those who don't. Therefore, I will count attendance in determining your final grade. If you can not regularly attend this class, then please find another section right away.

In the event of a medical emergency or an illness that is severe enough to require medical attention, students are responsible for contacting the Office of the Dean of Students as soon as possible to report the medical issue or emergency, providing dated documentation from a medical professional and requesting assistance in notifying their instructors. The medical documentation will be handled confidentially within the Dean of Students Office and will inform a decision as to whether communication with instructional faculty is appropriate. It is the expectation of the Institute that instructional faculty will honor a request from the Office of the Dean of Students to excuse a medical emergency or illness and allow make up of the work missed, including homeworks, quizzes, presentations, examinations, or other class assignments. All other Georgia Tech approved absences will be honored per the appropriate policy.

Office of Disability Services

The Georgia Institute of Technology has policies regarding disability accommodation, which are administered through The Office of Disability Services. <http://disabilityservices.gatech.edu/>. For students with disabilities, please contact this Office to request classroom accommodations.