GEORGIA INSTITUTE OF TECHNOLOGY
COE 2001 STATICS
Summer 2019

Instructor: Prof. Shuman Xia; e-mail: shuman.xia@me.gatech.edu
Lectures: MTW, 8:30 am - 9:25 am
Instructor’s Office Hours: Thursday, 10:30 am - 12:30pm
Prerequisite: Physics 2211

Textbook:

Web Resources:
All Announcements, changes, and handouts will be posted on Canvas at http://canvas.gatech.edu/. All homework assignments and solutions will be posted on https://www.wileyplus.com. Please check these two websites frequently.

Subject Summary:
This course provides an introduction to statics of rigid bodies with applications to science and engineering. Vector analysis will be introduced as a convenient tool to solve many problems. Students will develop their ability to analyze statics problems in a simple and logical manner, and to apply to their solutions a few well understood basic principles. By the end of the course you are expected to be able to address:

- Forces and Moments
- Free Body Diagrams (FBDs)
- Equilibrium in 2D and 3D
- Centroids
- Friction

Lecture Outline:
Introduction
Particle Equilibrium
    Components of a Force
    Particle Equilibrium
Moments and Resultants
    Cross Product
    Moment about a Point
    Moment about a Line
    Equivalent Systems
Analysis of General Equilibrium Problems
    Free-Body Diagrams
    Equilibrium in 2D and 3D
    Distributed Loads
Centroids and Center of Gravity
Homework:
Homework problems will be assigned weekly through https://www.wileyplus.com. All problems will be completed and graded online. To register an account at WileyPlus, you need a registration code that comes with your textbook. Please see the attached flyer to learn more about the registration process.

You MUST complete your homework on time to receive full credit. There is a 40% penalty for assignments submitted after the due date.

Mid-term and Final Exams:
There will be two mid-term exams and a final exam. All the exams will be closed book and closed lecture notes. One page of handwritten notes (one side) is permitted for each mid-term exam, two pages (one side) for the final exam.

- There is no make-up if you miss a mid-term exam. If you have a valid and documented excuse, your final exam score will be used to substitute for the missed mid-term exam. Also, there is no make-up for the final exam, unless some exceptional, well documented situation arises.
- Calculators (programmable or not) are allowed in the exams. But you are not allowed to use smart phones, ipads, laptops or tablets.
- If you require special accommodations (ADAPTS), please notify me ASAP.

Absences for Medical Reasons:
In the event of a medical emergency or an illness that is severe enough to require medical attention, you 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 me. The medical documentation will be handled confidentially within the Dean of Students Office and will inform a decision as to whether communication with me is appropriate. Briefly put, you will work with the Office of the Dean of Students to have them verify that you were ill, then the Dean’s office will interact with me.

Attendance:
Class attendance is mandatory, and will be checked randomly five times throughout the semester. Attendance will be graded as follows:

- No absence 100
- One absence 100
- Two absences 80
- Three absences 60
- Four absences 30
Five absences 0
Absences with a valid, documented excuse will not be counted.

**Grading:**
- Attendance: 3%
- Homework: 12%
- Mid-term Exam 1 (Monday, June 17, 8:30 am - 9:25 am): 20%
- Mid-term Exam 2 (Monday, July 8, 8:30 am - 9:25 am): 20%
- Final Exam: 45%

**Scale:**
Final scores will be calculated as weighted average of the above components, and mapped into letter grades based on a class distribution curve. The mapping is not more demanding than a scale of A: ≥90; B: ≥80; C: ≥70; D: ≥60; F: < 60.

**Honesty:**
You are allowed to work on homeworks with other students in the class. However, assignment solutions that you turn in should reflect your own understanding, and not that of your fellow students. The mid-term and final exams are to be completed ALONE. Plagiarizing is defined by the Merriam Webster dictionary as “to steal and pass off (the ideas or words of another) as one’s own: use (another’s production) without crediting the source”. Guidelines about what constitutes a violation of academic dishonesty on your tests, projects, quizzes, homeworks, etc., are provided in the GT Academic Honor Code [http://policylibrary.gatech.edu/student-affairs/academic-honor-code](http://policylibrary.gatech.edu/student-affairs/academic-honor-code). If caught plagiarizing, you will be dealt with according to the honor code.

**Other Policies:**
- Attendance to the class is mandatory.
- No assignments can be dropped or changed.
- Documented excuse is a note from the Dean of Students, or approved Institute activities (Section IV.B.3 of the Student Rules and Regulations).
- For all mid-term and final exam work that is submitted for grading, if part of the work is missing; or if the work is incomplete; or if the work is not presented in an understandable way, you will get little or no partial credit.
- The most important part when solving any problem is showing all steps of your solution (FBD, force equilibrium, etc.)
Find and register for this course:

Course ID: 703449

Step 1
Find your course
· Visit www.wileyplus.com/go/coursefinder
· Enter your course ID, 703449

Step 2
Register and get access to the course materials

Option A
Enter Your Registration Code
All new textbooks come packaged with a registration code in a sealed envelope. E-text access is included.

Option B
Purchase Instant Access
If you don't have a registration code, you can pay for access right there on the website. E-text access is included.

Option C
Grace Period
If you're not ready to buy, you can try the course free with full access for two weeks, free. E-text access is included.

Available options may vary by location.

Need Help?
WileyPLUS Help
Live chat support: www.wileyplus.com/support