

## COE-2001 Syllabus

Statics, Section R, 2 Credit Hours

Summer 2026

### Instructor Information

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### General Course Information

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#### Description

This document provides basic information regarding the Statics class for the Summer 2026 academic term at Georgia Tech Europe. The course is listed as COE-2001 for 2-credit hours in the course catalogue of the Georgia Institute of Technology. The class will meet twice a week for one hour on Mondays and Wednesdays between 10:25am and 11:40am in the **Pink Room** of the Georgia Tech Europe building in Metz. The objective of COE2001 is to provide students with a solid foundation of mechanics principles. The class will help students develop problem-solving skills with an emphasis placed on articulating and analyzing two- and three-dimension statics problem, drawing free-body diagrams, the estimation of distributed loads and centroids, and finally the class will conclude with the phenomenon of friction. The lectures will supplement reading from the textbook and will cover essential material related to the topics described previously. The lectures will be supported by several homework assignments, which will highlight how to analyze engineering problems. There will be midterm and final exams in this course. Due to the accelerated pace of the summer semester, students should, on average, expect to spend 5–8 hours on homework and material reading per week. Those who are less comfortable with trigonometry and vectors should be prepared to spend more until they become comfortable with these pre-requisites.

## Course Learning Outcomes

Upon successful completion of this course, students will understand the basic principles underlying the equilibrium of rigid bodies in two and three dimensions.

- Students will be able to apply fundamental rigid-body mechanics concepts to set up and solve engineering mechanics problems such as equilibrium and force-balance problems for single and assemblies of rigid bodies.
- Students will have the ability:
  - 1) To isolate rigid bodies and draw clear and appropriate free body diagram
  - 2) To apply skills in mathematics and physics to solve engineering mechanics problems
  - 3) To identify appropriate supports and static knowns and unknowns, in both 2D and 3D structures

## Pre-requisites

Mathematics 1502 or 15X2 or 1552 or 1X52 with minimum Grade D

Physics 2211 or Physics 2231 with minimum Grande D

## Topics

Course overview, Introduction, Static Equilibrium

One- and two- Dimension Statics of Particles, Vectors, Free Body Diagrams

Rigid Bodies in 2D, Line of Action, Concurrent Forces

Moments and Couples in 2D, Static Equilibrium of a 2D Rigid Body

Resultant Forces and Moments in 2D, Static Equivalence, Components

Plane Trusses (Joints)

Plane Trusses (Sections), Planar Frames and Machines

Distributed Forces, Centroids

3D Static Equilibrium, 3D Trusses

3D Frames and Machines

Internal Forces and Moments, Friction

## Required Course Materials

*Engineering Mechanics: Statics*

9<sup>th</sup> Edition, WileyPLUS Next by Meriam, Kraige, Bolton, 2020

ISBN 13: 9781119723523

### Grading Policy:

Grade in the course will be determined by mastery of the subject. The grade breakdown is given below. Points add up to a total of 100 and final grades will be assigned based on that percentage:

- A if  $90 \leq \text{Totals} \leq 100$
- B if  $80 \leq \text{Totals} < 90$
- C if  $70 \leq \text{Totals} < 80$
- D if  $60 \leq \text{Totals} < 70$
- F if  $\text{Totals} < 60$

### Description of Graded Components:

The total percentage is made of several components:

- In-class quizzes are 10min long and assess comprehension of the reading material and attendance.
- Individual Homework Assignments typically feature several problems from the set of WileyPlus Next problems from the textbook.
- Individual Take-Home Exams feature more applied problems. They are provided on Wednesday at 11:40am and will be due on Friday at 11:40am.
- The midterm and the final exams will be closed-book and closed-notes exams. A formula sheet may be provided.

The weight of each component is given below in Table 1. Equal weight will be given for each individual assignment within each category.

*Table 1: Assignments and their Weights*

Three In-class Quizzes	10%
Six Individual Homework Assignments	30%
Two Individual Take-Home Exams	20%
One Midterm Exam	20%
One Final Exam	20%

### Extra Credit Opportunities

Occasionally, research questions may be brought up during class. Students who volunteer to research the question and do a short 5min presentation of their findings at the next class will be eligible for a 2% bonus on their overall grade, not to exceed 10%.

**Class Website**

The official class website is on CANVAS at *canvas.gatech.edu*. This website is intended to provide official lecture material, handouts, presentations, notices, and relevant information. The website is continuously updated and must be checked on a regular basis. All class announcements are automatically emailed to students' GT accounts. It is the student's responsibility to maintain access to this account and address email filtering issues. Class announcements are also made during the lectures. It is the students' responsibility to keep up with the lectures and discussions during them and not rely solely on the class website as a place for class announcements. To log in, students use their GT account username (usually their first name initial followed by the last name and a number, e.g., gburdell3 ) and password. Once on CANVAS, the COE2001 icon must be selected to navigate to the class website.

**Office Hours**

Office hours are held virtually and in-person simultaneously during the entire Summer semester on Mondays between 12pm and 2:00pm. Physical location will be determined at the beginning of the Semester and communicated via CANVAS. When official institute holidays conflict with office hours, alternate arrangements will be made. Meetings during office hours are by appointment using Microsoft Bookings. Each appointment is 10 minutes long and students can book multiple consecutive appointments for a longer discussion.

## Course Policies

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### **Attendance and Participation**

Class preparation, attendance, and participation are essential for students to learn the material. This material will be foundational for their engineering careers. Attendance will be randomly checked three times during the semester during the three quizzes. Active participation during the class is also encouraged.

### **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. It is the responsibility of students to become familiar with the Honor Code and be aware of rules and expectations. For any questions regarding the Honor Code, students can contact a representative of the Honor Advisory Council of the Institute. Violations to the Honor Code have serious consequences.

### **Collaboration**

Students are expected to discuss aspects of their homework. However, the work submitted for grading must be exclusively their own.

### **Use of Past Student Work**

For individual assignments and exams, students are not allowed to use material created by students who took COE2001 in previous years just like they are not allowed to use materials created by their current classmates. Such actions go against the nature of an individual assignment and will be treated as a violation of the Honor Code.

### **Use of Generative AI Tools**

Students are not allowed to create text or code using generative machine learning models for any of their graded assignments. All text turned in for grading must be students' own

work, i.e., model-generated text must never be copied into documents to be turned in for grading even if edited. Students are attending school to learn new skills and new methods, and they should focus on attaining them rather than looking for shortcuts. Besides, these models are often trained with imperfect data and make mistakes. Any detection of auto-generated text or code will be subject to penalties in accordance with institute policies established by the Office of Student Integrity. If students have questions about legitimate uses of such tools, they must contact the instructor for clarifications.

### **Late Assignments and Missed Exams**

Unless announced otherwise, out-of-class assignments (homework and take home exams) must be turned in via Canvas (PDF format) as a single file. **Assignments received after they are due are late and will not be accepted.**

To maintain grading consistency and fairness, **exams will not be reaccommodated outside of exceptions made for approved Institute activities** (e.g., field trips, athletic events, conferences) and religious observances. [Read more about approved exceptions](#). As a result, the final exam score will also count for the missed exam.

### **Additional Course Policies**

Students may ask for a homework assignment or a test to be re-graded if they feel grading errors have been made. This request has to be made within one week of the assignment's original return date. In this case, the entire assignment will be re-graded.

No recording of any kind during the class and no phone distraction of any kind during class

### **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](#) guidebook articulate some basic expectations that students can have of the instructor and that the instructor has of students. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we all seek.

## Tentative Class Schedule

The official school calendar of Georgia Tech Europe is provided at <https://europe.gatech.edu/en/pick-your-semester/summer-2026/summer-2026-calendar>. The schedule is subject to change depending on topic progress and unforeseeable circumstances. Students will be given advance warnings of any schedule change on CANVAS. A tentative schedule is given below.

Table 2: Tentative Summer 2026 Schedule

Week 01	Class 01	W. May 20	Lecture
	Class 02	F. May 22	Lecture <i>Homework # 1 due at 11:59pm</i>
Week 02	Class 03	W. May 27	Lecture
	<b>Class 04</b>	<b>F. May 29</b>	<b>Take Home Exam due at 11:40am</b>
Week 03	Class 05	M. June 01	Lecture
	Class 06	W. June 03	Lecture <i>Homework # 2 due at 11:59pm</i>
Week 04	Class 07	M. June 08	Lecture
	Class 08	W. June 10	Lecture <i>Homework # 3 due at 11:59pm</i>
Week 05	Class 09	M. June 15	Lecture
	Class 10	W. June 17	Lecture <i>Homework # 4 due at 11:59pm</i>
Week 06	Class 11	M. June 22	Lecture + Review
	<b>Class 12</b>	<b>W. June 24</b>	<b>Midterm Exam (1hr long)</b>
Week 07	Class 13	M. June 29	Lecture
	Class 14	W. July 01	Lecture <i>Homework # 5 due at 11:59pm</i>
Week 08	Class 15	M. July 06	Lecture
	Class 16	W. July 08	Lecture
	<b>Class 17</b>	<b>F. July 10</b>	<b>Take Home Exam due at 11:40am</b>
Week 09	Class 18	W. July 15	Lecture
Week 10	Class 19	M. July 20	Lecture
	Class 20	W. July 22	Lecture <i>Homework # 6 due at 11:59pm</i>
Week 11	Class 21	M. July 27	Lecture
	Class 22	W. July 29	Lecture + Review
Week 12	<b>Reading &amp; Exam</b>	<b>July 30 to Aug 07</b>	<b>Final Exam</b>

## Campus Resources for Students

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### **Undergraduate Student Academic Success Resources:**

A list of resources for undergraduate students' academic success and information about advising can be found at [Success at Tech](#).

### **Students with Special Needs**

Student experience in this class is important to the instructors. If students have already established accommodation with the Office of Disability Services, they are expected to communicate their approved accommodations to the instructor at their earliest convenience to discuss needs in this course.

If they have not yet established services through Disability Services but have a temporary health condition or permanent disability that requires accommodation (conditions include but not limited to mental health, attention-related, learning, vision, hearing, physical or health impacts), students should contact the Office of Disability Services at 404-894-2563 or [dsinfo@gatech.edu](mailto:dsinfo@gatech.edu).

Disability Services offers resources and coordinates reasonable accommodation for students with disabilities or temporary health conditions. Reasonable accommodation is established through an interactive process between the student, the instructor(s), and Disability Services. It is important to the Georgia Institute of Technology to create an inclusive and accessible learning environments consistent with federal and state laws.

### **Student Well-Being:**

Georgia Tech understands that many students experience stress through a variety of academic, financial, and personal experiences. There are useful resources that are available to students should they need them. The well-being and mental health of students are important to the faculty and institute, and these resources are always available for students to discuss stress or similar issues. Students should feel free to contact their instructors if they are feeling overwhelmed by course work and the instructors will make fair arrangements to alleviate stress. There are numerous resources to support the mental health of all members of the Georgia Tech community:

- Center for Assessment, Referral and Education (CARE)
- Campus Police (any emergency): 404-894-2500
- Counseling Center: 404-894-2575

- Collegiate Recovery Program
- Stamps Psychiatry
- Vice President and Dean of Students Office and Student Referral Form
- Dean of Students Office: 404-894-6367
- Georgia Crisis and Access Line: 1-800-715-4225
- 988 Suicide & Crisis Lifeline: 988 or 1-800-273-8255 / France Number: Dial 3114
- Crisis Text Line: Text HOME to 741741
- VOICE: Victims Survivor Support: 404-894-9000
- Stamps Health Services / France SAMU: Dial 15
- Georgia Tech Mental Health Website