EGM2511 - Statics

Class Periods: Online, Asynchronous

Location: Online, Canvas LMS

Academic Term: Spring 2026

Instructor:

Dr. Daniel Dickrell III

UF Email: djd3@ufl.edu

Note: ***Canvas Mail and UF Email are separate entities. UF Email is checked daily. If your communication is of high importance please use UF Email for official course correspondence. Canvas Mail is checked sparingly.***

Office Hours Location: https://ufl.zoom.us/my/dr.djd3

Time: Tuesday 8:30-10:30 AM

Student Assistants:

Name (Email)	Location	Day	Time
Jamie Judge (jamie.judge@ufl.edu)			
Bailey Gowen (bailey.gowen)			
Livia Law (livia.law)			
Ella Shelton (ella.shelton@ufl.edu)			
Jonah Ferber (jonahferber@ufl.edu)			
Anneliese Nguyen (nguyenanneliese@ufl.edu)			

Course Catalog Description

EGM2511 Engineering Mechanics: Statics, 3 Credits
Grading Scheme: Letter Grade

Topics: reduction of force systems, equilibrium of particles and rigid bodies, vector methods and their application to structures and mechanisms.

Course Pre-Requisites / Co-Requisites

Prerequisite: PHY 2048 ; Corequisite: MAC 2313

Course Objectives

In this course the student will develop engineering problem solving methods through fundamental introductory topics in mechanics including: particle and rigid body equilibrium in 2D and 3D force systems, appropriate support reactions, moments of forces, equivalent systems, distributed forces, center of gravity, composite body and integration analysis methods, trusses, frames, machines, internal forces (including shear and bending moment diagrams), friction concepts, moment of inertia, parallel axis theorem, and mass moment of inertia.

This is a core course in the engineering curriculum. It stresses fundamental engineering science and mathematical principles required for a proper understanding of mechanics. Students will learn to use vector methods and free body diagram development as tools to logically approach and solve engineering mechanics problems in both the SI and U.S. customary systems.

Upon completion of this course students are expected to understand how to analyze practical engineering structures under force and moment systems and have a strong foundation of the engineering mechanics principles and methods needed for both use as qualified engineers and for secondary courses in mechanics.

Materials and Supply Fees

n/a

Required Textbooks and Software

Title: Engineering Statics Author: Baker and Haynes
https://engineeringstatics.org

Required Computer

Recommended Computer Specifications: https://it.ufl.edu/get-help/student-computer-recommendations/

HWCOE Computer Requirements: https://www.eng.ufl.edu/students/advising/fall-semester-checklist/computer-requirements/

Course Schedule

Each chapter corresponds to roughly one week of the semester:

Chap 1 Introduction and Analysis Basics

Chap 2 Vector Mechanics

Chap 3 Particle Equilibrium

Chap 4 Moments

Chap 5 Rigid Body Equilbrium

Chap 6 Structures

Chap 7 Internal Forces and Moments

Chap 8 Friction

Chap 9 Centroids

Chap 10 Moments of Inertia

Important Dates

February 17th, 2026 Exam 1 (8:20 PM @ WEIM 1064 & TBD)

March 25th, 2026 *Exam 2 (8:20PM @ CAR 0100)*

April 25th, 2026 *Final Exam (10:00 AM @ TBD)*

Evaluation of Grades

Assignment	**Percentage of Final Grade**
Homework	5%
Quizzes (6)	15%
Exam 1 & 2	25%, 25%
Final Exam	30%

The lowest two scores for HW and lowest Quiz will be dropped to account for travel, scheduling conflicts and illness. *Save these, they come in handy at the end.*

Grading Policy

Percent	**Grade**	**Grade Points**
92 - 100	A	4.00
90.0 – 91.9	A-	3.67
88 - 89.9	B+	3.33
82– 87.9	B	3.00
80.0 – 81.9	B-	2.67
78 - 79.9	C+	2.33
72 - 77.9	C	2.00
70.0 – 71.9	C-	1.67
68 - 69.9	D+	1.33
62 – 67.9	D	1.00
0 – 61.9	E	0.00

As the assignment deadlines will be clearly posted on the course websites, late submissions past the deadline will not be accepted. There is no excuse for missed assignments, this is your responsibility to act like a professional student. Respect the deadline. If you get sick or have an event, that's what the drops are for.

GRADE DISPUTES:
If a student feels that an exam or homework was graded unfairly, or if there is an error in the grading, it should be brought to the attention of the primary instructor within ***two weeks*** after the grades are posted for that assignment. Scores will not be reconsidered beyond the two-week period.

TA's and graders don't have authority to change grades unilaterally, so please don't ask them.

Relation to Program Outcomes (ABET):

EGM2511 supports program outcomes enumerated in the mission statements of various degree programs and engineering departments. The successful completion of this course will support desired student outcomes, including the design and realization of engineering systems. The course might be categorized as approximately Mathematics (10%), Physical Sciences (20%), Engineering Sciences (60%), and Engineering Design (10%).

This course achieves the following engineering accreditation outcomes:

- Ability to identify, formulate, and solve complex engineering problems
- Ability to apply engineering design to produce solutions that meet specified needs

Academic Policies & Resources

To support consistent and accessible communication of university-wide student resources, instructors must include this link to academic policies and campus resources: https://go.ufl.edu/syllabuspolicies. Instructor-specific guidelines for courses must accommodate these policies.

Commitment to a Positive Learning Environment

The Herbert Wertheim College of Engineering values varied perspectives and lived experiences within our community and is committed to supporting the University's core values.

If you feel like your performance in class is being impacted, please contact your instructor or any of the following:

- Your academic advisor or Undergraduate Coordinator
- HWCOE Human Resources, 352-392-0904, student-support-hr@eng.ufl.edu
- Pam Dickrell, Associate Dean of Student Affairs, 352-392-2177, pld@ufl.edu