EGM 2511: Engineering Mechanics – Statics
Spring 2020, Class Number 12172, Section 1210
MWF: 8:30-9:20AM
Larsen Hall, Room 0239

Instructor Information

Dr. Kevin Sevilla
Office Hours: Monday 10:00am-12:00noon or by appointment
Office Location: Mechanical Engineering Building B – Room 239
Email: sevilla.kevin@ufl.edu

Final Exam

April 25, 2020 at 7:30 AM - 9:30 AM

Catalog Description

Reduction of force system. Equilibrium of particles and rigid bodies. Vector methods. Application to structures and mechanisms. Credits: 3

Text

Engineering Mechanics: Statics, 14th Edition. R. C. Hibbeler, Pearson Prentice Hall

Course Objectives

Upon completion of this subject, you will be able to:

- Resolve forces into components in 2D and 3D
- Draw free body diagrams for particles and rigid-bodies
- Solve 2D and 3D particle and rigid body equilibrium problems
- Analyze simple trusses and beams
- Analyze centroids and the center of gravity for various shapes and composite bodies
- Calculate moments of inertia for 2D areas and composite bodies

ABET Outcomes

EGM 2511 contributes to the following ME program outcomes: (1) Posses ability to work professionally in both thermal and mechanical systems areas including the design and realization of such systems. Mathematics (10%), Physical Sciences (20%), Engineering Sciences (60%), and Engineering Design (10%).

Grading Policy and Assignments

Homework 10%
Classwork 10%
Tests 60%
Final 20%

Grade Distribution

92% A
82% B
72% C
+/- grades will be determined after the final exam

Homework Policy
Homework will be submitted electronically through the assignment link on the course site and must follow the format outlined in the "HW Template.pdf" document on Canvas. Late submissions will receive a 20% deduction per day unless otherwise approved by the instructor of record.

Calculator Policy
Calculators will be needed to complete homework, classwork, tests, and the final exam. A list of approved calculators can be found at http://ncees.org/exams/calculator-policy/. **No graphing calculators will be allowed on tests or the final exam.**

Grading Disputes
All grades are considered final upon return. In the case that an error has been made, a student must submit a formal email to the instructor of record within 2 business days (M-F) of the assessment item being return buy the close of business (5:00pm). The email must include a scan of the work, the marks in question, and a proposed outcome based on the evidence presented. Teaching assistants and graders may not be contacted over grading disputes for any reason.

Attendance
Attendance for all class sections is required. Excused absences must be consistent with university policies in the undergraduate catalog (https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx) and require appropriate documentation in order to makeup work missed for any reason.

Academic Integrity
UF students are bound by the university honor code that states: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/studentconduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Additionally, all students are obligated to report any academic misconduct to appropriate academic personnel.

Special Assistance
If you require special assistance for any reason you must register with the Disability Resource Center (352-392-8565, https://www.dso.ufl.edu/drc) by providing appropriate documentation. Once registered, you will receive an accommodation letter which must be presented to the instructor of record. Please do this as early in the semester as possible.

Health and Wellness
If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at (352) 392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1. Counseling and Wellness Center can be contacted through their website at http://www.counseling.ufl.edu/cwc or by phone at (352) 392-1575.

Tentative Class Schedule

Week	Activities & Assignments
Week 1 January 6	Syllabus Success Strategies Chapter 2: Force Vectors Homework # 1 Assigned
Week 2 January 13	Chapter 2: Force Vectors **Homework # 1 Due** Homework # 2 Assigned
Week 3 January 20	Chapter 3: Equilibrium of a Particle **Homework # 2 Due** Homework # 3 Assigned
Week 4 January 27	Chapter 4: Force System Resultants **Homework # 3 Due** **Test # 1**
Week 5 February 3	Chapter 4: Force System Resultants Homework # 4 Assigned
Week 6 February 10	Chapter 4: Force System Resultants **Homework # 4 Due** Homework # 5 Assigned
Week 7 February 17	Chapter 5: Equilibrium of a Rigid Body **Homework # 5 Due** Homework # 6 Assigned
Week 8 February 24	Chapter 5: Equilibrium of a Rigid Body **Homework # 6 Due** **Test # 2**
Week 9 March 2	Chapter 6: Structural Analysis Homework # 7 Assigned
Week 10 March 9	Chapter 6: Structural Analysis **Homework # 7 Due** Homework # 8 Assigned
Week 11 March 16	Chapter 8: Friction **Homework # 8 Due** Homework # 9 Assigned
Week 12 March 23	Chapter 9: Center of Gravity & Centroid **Homework # 9 Due** **Test # 3**
Week 13 March 30	Chapter 9: Center of Gravity & Centroid Homework # 10 Assigned
Week 14 April 6	Chapter 10: Moments of Inertia **Homework # 10 Due** Homework # 11 Assigned
Week 15 April 13	Chapter 10: Moments of Inertia **Homework # 11 Due** **Test # 4**
Week 16 April 20	Final Review
Final April 25	Final 7:30-9:30am