

**ME 205 ENGINEERING STATICS
FALL QUARTER, 2009**

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The following is a **tentative schedule** of the material to be covered in this class. It may change due to unforeseen circumstances.

Week	Dates	Subject	Book Section
1	9/8-9/11	Introduction. Fundamental concepts. Forces and Moments. Reactions.	1.3, 1.4, 2.1, 4.1, p293, p247
2	9/14-9/18	Free Body Diagrams. 2D and 3D vector representations Dot Product.	5.2, 2.1-2.4
3	9/21-9/25	Moments and equivalent force systems. 2D Equilibrium	4.1- 4.4, 5.3, 5.4
4	9/28-10/2	3D Equilibrium. Internal forces.	5.4, 8.1
5	10/5-10/9	Distributed forces. Trusses	7.4, 6.1
6	10/12-10/16	Trusses (cont.) Frames and Machines	6.2, 6.4
7	10/19-10/23	Mid-Term Exam. Frames and machines. Friction.	6.4, 9.1
8	10/26-10/30	Center of Gravity. First area moments. Composite shapes. Centroid by integration.	7.1
9	11/2-11/6	Moments of inertia. Parallel axis theorem. Composite shapes.	10.1-10.2
10	11/9-11/13	Mass moment of inertia. Review.	10.3
11	11/16-11/20	Final Exam	

Specific Objectives

After completing this course, the student will be able to:

- 1) Apply the equations of equilibrium.
- 2) Draw free body diagrams.
- 3) Perform 2D and 3D force analysis of static rigid structures using scalars and vectors.
- 4) Calculate geometric properties of rigid bodies.

Text

Engineering Mechanics: Statics. M. Plesha, G. Gray and F. Costanzo. McGraw-Hill, 2010.

Prerequisites

MA 137, PH 110

Homework Policy

All homework is due at the beginning of class one-week after being assigned. **NO LATE HOMEWORK WILL BE ACCEPTED.** The instructor may excuse a student from submitting a homework assignment, for emergency reasons. In such cases, the instructor must be notified of the emergency as soon as possible.

Website

Check the website (<http://people.msou.edu/~rizza/ME205.htm>) for the latest information concerning the course, homework assignments, solutions and material that may be downloaded.

Additional information regarding classes etc may be found here:

<http://people.msou.edu/~rizza/FAQ.htm>.

Grading Policy

Two exams will be given as shown in the tentative schedule. The exact date of each exam will be announced one week prior to the examination. The final exam is a common exam given to all ME 205 sections. All exams are closed book and notes. In addition, there will be short quizzes devoted to the current topic (roughly one per week). The overall grade for this class will be based on the following breakdown:

Homework	5 %
Short quizzes	30 %
2 Exams	65 %

Missed exams will not be made up, though the instructor may excuse a student for emergency reasons if notified before the date of the exam.

A straight scale will be used with the following breakdown:

A	$\geq 90\%$
B	80%-89%
C	70%-79%
D	60%-69%
F	$< 60\%$