Revised Fall 2015

EGR 135
Statics for Engineering Technology

COURSE OUTLINE

Prerequisites: EGR 195

Course Description:

Introduces Newton's Laws, resultants and equilibrium of force systems, analysis of trusses and frames. Teaches determination of centroids, distributed loads and moments of inertia. Covers dry friction and force systems in space. Lecture 3 hours per week. 3 credits

Semester Credits: 3 **Lecture Hours: 3 Lab/Recitation Hours:** Select Hours

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Course Outcomes

At the completion of this course, the student should be able to:

- Manipulate (i.e., add and multiply) vector quantities.
- Establish the forces and/or moments required to keep a Particle in equilibrium in two dimensions**.**
- Establish the forces and/or moments required to keep an Extended Rigid Object in equilibrium in two dimensions**.**

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Required Materials:

Textbook:

1. **Engineering Mechanics: Statics plus MasteringEngineering with Pearson eText -- Standalone Access Card, 13/E**
   HIBBELER
   ISBN-10: 0133009548
   ISBN-13: 9780133009545
   Publisher: Prentice Hall
   Copyright: 2013
   Format: National Bundle

2. Access to Online Homework program associated with textbook: (http://www.masteringengineering.com)

Other Required Materials:

Calculator
Access to Excel (or other spreadsheet software)

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Topical Description:

Week	Chapter		Comment
1	General Principles; Vectors		
2			
3			
4	Equilibrium: Particle		
5			
6			
7	Force Systems		
8			
9			
10	Equilibrium : Rigid Body		
11			
12			
13	Structural Analysis		
14			
15			

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Notes to Instructors

1. All instructors teaching this course will use the same textbook.

2. Course content within this course may be covered at the instructor's discretion but with all topics being covered.

3. This course and its grades will be structured around a minimum of 2 tests, final exam, and homework.

4. At the end of the semester, all instructors will give the outcome assessment as it relates to the final exam to the program head at the same time they prepare there student final grades.

5. A comprehensive final exam will be given.

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