

**School of Engineering  
University of Guelph**

**ENGINEERING MECHANICS 2, ENGG\*2160  
Fall 2009**

**Instructor:** R.J. Runciman, Room 1344, THRN, Ext. 53072  
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**Text:** Hibbeler, R.C., Mechanics of Materials, 7<sup>th</sup> edition, Pearson-Prentice Hall.

**Schedule:**

Lectures,	MWF 11:30 - 12:20	MACK 230
Tutorials,	F 1:30 - 2:20	MACK 236
Midterm Exam	Week 7, time and location	TBA
Final Exam,	11:30 - 1:30, Wednesday, Dec. 16 <sup>th</sup> ,	location TBA

**Objectives:** The objectives of this course are: (1) to understand the stress-strain behaviour of engineering materials in service, and (2) to develop adequate procedures for finding the required dimensions of a member of a specified material to carry a given load subject to stated specifications of stress and deflection.

**Prerequisites:** ENGG\*1210, Engineering Mechanics I  
ENGG\*1500 Engineering Analysis  
0.5 credit in calculus

**Topics of Study:**

1. Stress and Strain - Axial, Torsional & Flexural Loading
2. Transformations of Stress and Strain
3. Deflections of beams
4. Columns

**Method of Presentation:** Lectures and problem solving/ tutorial periods. The tutorial periods will include literature reviews and problems compatible with the lecture materials to enhance understanding of the subject matter. The tutorial period is also expected to be utilized as office hours. The students are welcome to bring in questions from preceding lecture periods.

**Method of Evaluation:** The final grade will be determined from the results of one final examination, one mid-term test, 7 problem assignments and 1 independent project. You will be asked to hand in for marking ONE or MORE of the questions in the problem assignments. The problems for marking will be announced prior to submission. Late submissions will not be accepted for marking. The individual marks will be weighted as follows:

Final examination	40%
Mid-term test	30%
Assignments	20%
Project	10%

You must have a passing cumulative average (i.e. 50% of 70% = 35% total) for the mid-term test and final examination to pass the course. If not, the course is failed automatically and the final mark is determined by multiplying the sum of the final examination and mid-term test marks by 100/70.