

SAMPLE COURSE OUTLINE: Information under each heading is required.

Course Outline (F2015)

MEC3XX: STATICS AND MECHANICS OF MATERIALS

Instructor	Dr. Jane Smith, P.Eng. Office: Phone: Email: Office hours:
Prerequisites	MTH 2XX, PCS 2XX, MTH 1XX, MEC 2XX and MTL 2XX
Compulsory Texts:	<ol style="list-style-type: none"> 1. <i>Engineering Mechanics: Statics</i>, 2nd edition, Costanzo, F., Plesha, M.E., Gray, G.L., McGraw-Hill, 2013. 2. <i>Mechanics of Materials</i>, 3th edition, Roy R. Craig Jr., John Wiley & Sons, 2011.
Calendar Description	The statics will cover rigid body equilibrium, including: two and three-force members, trusses, frames and machines. Mechanics of materials will cover introductory stress and strain, Hooke's Law, axial and torsional loading and statically indeterminate problems.
Learning Objectives	<p>At the end of this course, the successful student will have demonstrated that s/he:</p> <ol style="list-style-type: none"> 1. Exhibits scientific knowledge, and competency in modeling and solving engineering problems. (1c) 2. Formulates mathematical models using scientific and engineering principles. (2b) 3. Justifies model assumptions and understands their limitations. (2b) 4. Selects and uses an appropriate method for problem definition. (4b) 5. Illustrates concepts in graphical form. (7d) <p>Note: Numbers in parentheses refer to the graduate attributes required by the Canadian Engineering Accreditation Board. For more information, see: http://www.ryerson.ca/feas/programs/ga/gradattributes.html</p>
Course Organization	<p>4 hours of lecture per week 1 hour of lab/tutorial per week</p>

Course Evaluation	Midterm exam	35%
	Assignments	10%
	Final exam	55%
	Total	100%

NOTE: The assignments mark is only added in the determination of the final grade once a passing mark (i.e., minimum 45/90) is achieved in the combined midterm and final exams.

Examinations Midterm exam in Week 7, two hours, closed book (covers Weeks 1-6).
Final exam, during exam period, three hours, closed-book (covers Weeks 1-13).

Course Content

1. Force system resultants (including distributed forces)
2. Centroids and Composite Bodies
3. Equilibrium of a rigid body
4. Plane Trusses, Frames and Machines
5. Internal forces developed in structural members
6. Friction
7. Stress and Strain
8. Axial deformation
9. Torsion

Laboratory/Tutorials

Week	Title	Room
2,3	Force resultants (& distributed forces), Centroids and Composite Bodies	TBA
4,5,6	Equilibrium of rigid body	TBA
7,8	Plane trusses, frames and machines, internal forces	TBA
9,10	Friction, stress and strain	TBA
11	Axial deformation	TBA
12	Torsion	TBA

Important Notes

1. ...
2. ...
3. ...

Prepared by: _____
Dr. Jane Smith

Date: _____

Approved by: _____
Chair/Program Director

Date: _____