

UNIVERSITY OF VICTORIA
DEPARTMENT OF MECHANICAL ENGINEERING
MECH 320 – COURSE OUTLINE

Instructor:

Dr. J. Wegner Email: jwegner@uvic.ca
Office: EOW537 Tel: 721-8694

Lecture Location and Times:

Tuesday, Wednesday, Friday 10:30 a.m. – 11:30 a.m. ECS 125

Lecture hours will be devoted to introducing, reviewing, and discussing the course material. It is the responsibility of the student to attend lectures and observe the progress of the course. Students should note that the assignment, mid-term exam and final exam scheduling provided in this course outline are tentative, and that notice regarding any changes will be given during the lectures.

Teaching Assistants:

➤ Majid Soleimani	Email: majids@uvic.ca	Office: ELWA248
➤ Mario Bras	Email: mbras@uvic.ca	Office: EOW148a
➤ Shahil Charnia	Email: shahilc@uvic.ca	Office:
➤ Ghulam Mustafa	Email: gmustafa@uvic.ca	Office: ELW237A

Tentative Schedule of Lecture Topics – 2014

The lectures will cover the following material:

Topics Covered:	Textbook Chapter:
Stress	1.0
Relations of Stress and Strain	2.0
Two-Dimensional Theory of Elasticity	3.0
Stress Concentrations	3.0

Failure Criteria	4.0
Bending of Non-Symmetrical Beams and Composite Beams	5.0
Torsion of Prismatic Bars	6.0
Axisymmetrically Loaded Members	8.0
Introduction to Finite Element Method	Supplem. Notes

Textbook (Required):

Advanced Mechanics of Materials and Applied Elasticity, Ansel C. Ugural, Saul K. Fenster, 5th Edition, Prentice Hall, 2012.

Laboratory Location:

Monday	<u>1:30 pm – 4:30 pm</u>	<u>4:30 pm – 7:30 pm</u>	ELWA135
Friday	<u>2:30 pm – 5:00 pm</u>		ELWA135

Each laboratory has been divided randomly into student groups. These groups will be maintained throughout the term. One lab report will be prepared per group, per laboratory. The lab reports will be due exactly one week after the completion of the scheduled lab session and will be submitted into the MECH320 drop box.

You must prepare in advance of the laboratory to be able to complete the lab on time.

Lab schedule is posted online.

There are three laboratories and one project to be completed within the scope of the course.

Assignments:

The assignments will cover sample problems from the textbook, and other material. It should be noted that completion of sample problems from the textbook will assist students in preparing for the mid-term exam and final exam. Students are encouraged to review additional textbook problems, beyond those assigned.

Tentative Dates:

Assignment #	Date Assigned	Date Due
1	Jan 10, 2014	Jan 24, 2014
2	Jan 24, 2014	Feb 7, 2014
3	Feb 7, 2014	Feb 25, 2014
4	Feb 25, 2014	Mar 07, 2014
5	Mar 07, 2014	Mar 21, 2014
6(FEM mini-project)	Mar 21, 2014	Apr 4, 2014

LATE ASSIGNMENTS OR LATE LABORATORY REPORTS, WILL NOT BE ACCEPTED

Office Hours (Tentative)

Wednesday 11:30 am – 12:30 pm Room EOW 537

Marking Scheme:

Assignments (5)	15%
Laboratory Reports (3)	10%
Mini-Project	5%
Mid-term Exam	20%
Final Exam	50%

Date, Time and Location of Mid-term Examination:

February 19, 8:00 p.m. -9:00 p.m. ECS 123

