

## MEEG 5033 – Advanced Mechanics of Materials Fall 2012 Course Schedule\*

<u>Week</u>	<u>Dates (M,W,F)</u>	<u>Sections</u>	<u>Topic(s)</u>
Week #1	8/20, 8/22, 8/24	1.1 – 1.4	Review of mechanics of materials 1D stress-strain diagrams
Week #2	8/27, 8/29, 8/31	2.1 – 2.4	Advanced stress and strain concepts Mohr's circle / critical stresses
Week #3	<del>9/3</del> , 9/5, 9/7	2.5 – 2.8	Labor Day Deformable bodies
Week #4	9/10, 9/12, 9/14	3.2, 3.3, 3.5 3.1, 3.4	Anisotropic elasticity Thermoelasticity
Week #5	9/17, 9/19, 9/21	5.1 – 5.4	Introduction to energy methods Energy methods – Castigliano's theorems
Week #6	9/24, 9/26, 9/28	5.5	Energy methods – statically determinate Energy methods – statically indeterminate
Week #7	10/1, 10/3, 10/5	7.1 – 7.3	Fundamentals of beam bending Nonsymmetric beam bending
Week #8	<del>10/8, 10/10, 10/12</del>		<b>EXAM 1 (Chapters 1, 2, 3 and 5)</b> No class – Dr. Spearot at conference
Week #9	<del>10/15</del> , 10/17, 10/19	7.3 8.1 – 8.2	Deflections in nonsymmetric beams Shear center for thin walled beams
Week #10	10/22, 10/24, 10/26	8.3 – 8.5	Shear center applications Shear center examples
Week #11	10/29, 10/31, 11/2	9.1 – 9.5	Theory of curved beams Deflections in curved beams / examples
Week #12	11/5, 11/7, 11/9	11.1 – 11.3	Stresses in thick wall cylinders Radial displacement in thick wall cylinders <b>EXAM 2 (Chapters 7, 8 and 9)</b>
Week #13	11/12, 11/14, 11/16	12.1 – 12.3	Intro to column buckling Ideal elastic buckling / Euler buckling
Week #14	11/19, <del>11/21, 11/23</del>	12.4	Buckling applications and examples Thanksgiving holiday
Week #15	11/26, 11/28, 11/30	4.1 – 4.5	Failure concepts and yield criterion Advanced yield criterion
Week #16	12/3, 12/5	4.6	Elastic-plastic bending Elastic-plastic examples
Finals Week	12/12		<b>EXAM 3 (Chapters 11, 12 and 4)</b>

\* Course schedule may change slightly over the course of the semester; changes will be communicated in class and/or electronically