MEEG 5033 – Advanced Mechanics of Materials – Fall 2008
Course Schedule*

Week	Dates (T, TH)	Sections	Topic(s)
Week #1	8/26	1.1 – 1.2	Review of mechanics of materials
	8/28	1.3 – 1.4	1D stress-strain diagrams
Week #2	9/2	2.1 – 2.4	Advanced stress and strain concepts
	9/4	2.5 – 2.6	Deformable bodies
Week #3	9/9	2.7 – 2.8	Strain transformation / measurement
	9/11	3-1 – 3-2	Stress – strain – temperature relations
Week #4	9/16	3.3 – 3.5	Anisotropic Hooke's Law / thermoelasticity
	9/18	5.1 – 5.2	Introduction to energy methods
Week #5	9/23	5.2 – 5.3	Energy methods – Castigliano's theorem
	9/25	5.4	Energy methods – statically determinate
Week #6	9/30	5.5	Energy methods – statically indeterminate
	10/2	5.4 – 5.5	Energy methods – applications
Week #7	10/7	7.1 – 7.2	Fundamentals of beam bending
	10/9		**EXAM 1 (Chapters 1, 2, 3 and 5)**
Week #8	10/14	7.2 – 7.3	Exam return, nonsymmetric beam bending
	10/16	7.3	Deflections in nonsymmetric beams
Week #9	10/21	8.1 – 8.2	Shear center for twin walled beams
	10/23	8.3 – 8.5	Shear center applications / examples
Week #10	10/28	9.1 – 9.3	Theory of curved beams
	10/30	9.4 – 9.5	Deflections in curved beams / examples
Week #11	11/4	11.1 – 11.2	Stresses in thick wall cylinders
	11/6	11.3	Radial displacement in thick wall cylinders
Week #12	**11/11**		**EXAM 2 (Chapters 7, 8 and 9)**
	11/13	12.1	Exam return, intro to column buckling
Week #13	11/18	12.2	Ideal elastic buckling
	11/20	12.3 – 12.4	Euler buckling and local stability
Week #14	11/25	12.1 – 12.4	Buckling applications and examples
	11/27		**THANKSGIVING HOLIDAY**
Week #15	12/2	4.1 – 4.3	Failure concepts and yield criterion
	12/4	4.4 – 4.5	Advanced yield criterion
Week #16	12/9	4.6	Elastic-plastic bending / examples
Finals Week	12/13 (3:00 – 5:00 pm)		**EXAM 3 (Chapters 11, 12 and 4)**

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