CEE212 – Solid and Structural Mechanics (4 Credits)
Fall Semester 2009-2010
Course Outline

Date	Class	Title
9/16	1	Principles of Statics (Ch 1)
9/18	2	Stress on Solids (Ch 1)
9/18	3	Shear Stress and Allowable Stress Design (Ch 1)
9/18	4	Strain in Solids (Ch 2)
9/21	5	Introduction to Material Properties (Ch 3)
9/23	6	Stress-Strain of Different Materials (Ch 3)
9/25	7	Material Strain Energy and Poisson's Ratio (Ch 3)
9/28	8	Introduction to Axial Members (Ch 4)
9/30	9	Indeterminate Axial Members (Ch 4)
10/2	10	Stress Concentrations (Ch 4)
10/5	11	Introduction to Torsion Members (Ch 5)
10/7	12	Behavior of Rod and Shafts in Torsion (Ch 5)
10/9	13	Plastic Response of Torsion Members (Ch 5)
10/12	14	Introduction to Bending (Ch 6)
10/14	15	Drawing Shear and Moment Diagrams Quickly (Ch 6)
10/16	16	Flexural Properties of Beams (Ch 6)
10/19	-	NO CLASS – Fall Break
10/21	17	Unsymmetric Beams (Ch 6)
10/23	18	Composite Beams Including R/C Flexural Elements (Ch 6)
10/26	19	Stress Behavior in Beams - Elastic and Plastic (Ch 6)
10/28	20	Introduction to Transverse Shear (Ch 7)
10/30	21	Shear Stress in Bending Beams (Ch 7)
11/2	22	Concept of Shear Flow in Built-up Sections (Ch 7)
11/4	23	Shear Flow in Thin Walled Elements and Shear Center (Ch 7)
11/6	24	Combined Loadings and Resulting Stress (Ch 8)
11/9	25	Plane Stress Transformation (Ch 9)
11/11	26	Principal Stresses (Ch 9)
11/13	27	Introduction to Mohr's Circle (Ch 9)
11/16	28	Stress Variations in Beam & Maximum Shear (Ch 9)
11/18	29	Introduction to Bending Beams (Ch 12)
11/20	30	Beam Displacement - Integration and Moment Area Method (Ch 12)
11/23	31	Statically Indeterminate Beams (Ch 12)
11/25	32	Introduction to Columns (Ch 13)
11/30	33	Euler's Formula for Slender Columns (Ch 13)
12/2	34	The Secant Formula (Ch 13)
12/4	35	Introduction to Energy Methods (Ch 14)
12/7	36	Strain Energy of Loaded Elements (Ch 14)
12/9	37	Impact Loading by Energy Methods (Ch 14)
12/11	38	Principle of Virtual Work – I (Ch 14)
12/14	39	Principle of Virtual Work – II (Ch 14)

Make-up Slot: Fridays, 2:30 – 4:30 pm (Recitation Period)
Midterm Exam: Friday, November 6, 2:30 pm (Room TBD)
Final Exam: Thursday, December 17, 4:00 pm - 6:00 pm (Room TBD)