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**THE UNIVERSITY OF TENNESSEE**  
**Department of Mechanical, Aerospace and Biomedical Engineering**

**Term:** SPRING 2007  
**Course Number:** ME, etc. 559  
**Instructor:** John Landes

**Text:** Cook and Young, Advanced  
**Mechanics of Materials, 2<sup>nd</sup> Edition**  
**Time:**

CLASS		DATE	READING ASSIGNMENT	PROBLEM ASSIGNMENTS
1	JANUARY	11	Introduction; 1.1-1.3	
2		16	Mech of Matl's; 1.4-1.8	1.4-2, 1.5-2, 1.6-7, 1.7-1
3		18	Stress; Stress Trans.; 2.1-2.4	2.3-2 a,b, 2.3-3 a,b
4		23	Strain, Stress-strain; 2.4-2.6	2.5-2. 2.6-2 a-e (use 2.3-2b)
5		25	Stress Conc., 2.7	2.7-4
6		30	Failure Criteria; 3.1-3.4	3.2-4, 3.3-3 a,c,d, 3.3-9
7	FEBRUARY	1	Fracture; 3.5	3.5-3, 3.5-4 (both a,b)
8		6	Fatigue; 3.6	3.6-1, 3.6-3a, 3.6-6; handout
9		8	<b>IN CLASS EXAM 1</b>	
10		13	Energy Method; 4.1-4.5	4.1-4, 4.1-5, 4.2-1, 4.2-2
11		15	Energy Method; 4.6-4.8	4.5-2, 4.5-4, 4.5-5
12		20	Energy Method; 4.9-4.12	4.6-4, 4.6-11
13		22	Energy Method	4.7-4, 4.7-6
14		27	Energy Method	4.10-2, 4.11-3, 4.12-3
15	MARCH	1	<b>TAKE HOME MID TERM</b>	
16		6	Elastic Foundation; 5.1-5.3	5.3-5, 5.3-6, 5.3-7
17		8	Elastic Foundation; 5.4, 5.6	5.4-6, 5.4-9, 5.5-12,
18		13	<b>NO CLASSES</b>	<b>SPRING BREAK</b>
		15	<b>NO CLASSES</b>	<b>SPRING BREAK</b>
		20	Elastic Foundation; 5.7	5.6-4 a, b, c, 5.7-3
19		22	Curved beam; 6.1-6.3	6.2-7, 6.3-1, 6.3-2
20		27	Curved beam; 6.4, 6.7	6.4-3, 6.7-3
21		29	Unsym bend Stress; 10.1, 10.2	10.2-5, 10.2-6 a,b
22	APRIL	3	Unsym. bend: Displ; 10.3	10.3-3, 10.3-4
23		5	<b>IN CLASS EXAM 1</b>	
24		10	Transverse shear; 10.4	10.4-6 a,b,c, 10.4-8
25		12	Shear center; 10.5, 10.6	10.5-1b, 10.6-1b,e
26		17	Shells of revolution; 13.1-13.4	13.4-2, 13.4-6
27		19	Shells of revolution; 13.6-13.8	13.8-5, 13.8-12a
28		24	Review	
29		26	<b>TAKE HOME FINAL</b>	

**First Session Ends Wednesday, February 28**

**Second Session Begins Thursday March 1**

**Classes End, Friday April 27**

**Study Days Wednesday-Thursday, April 30, May 1**

**Final Exam Days May 2, 3, 4, 7, 8**