

Lecture M,W 2:00-3:15
 Lab F 2:00-5:00
 Text Statics and Mechanics of Materials, 2nd ed., R.C. Hibbeler

Lecture	Date	Topic	Pages	Homework
1	7-Jan	Introduction, force resultants, equilibrium conditions	Ch. 3-4	3.2, 3.23, 4.6, 4.33, 4.42
2	12-Jan	Friction, trusses and machines	Ch. 4-5	4.42, 5.1, 5.15, 5.43
3	14-Jan	Geometric Properties and distributed loads	Ch. 6	6.1, 6.2, 6.37, 6.51, 6.73
	19-Jan	MLK Holiday		
4	21-Jan	Internal loading, shear and moment diagrams	Ch. 7	7.1, 7.2, 7.11, 7.14, 7.30, 7.33, 7.42, 7.66
5	26-Jan	Definition of stress, safety factors	Ch. 8	8.1, 8.7, 8.22, 8.37, 8.39, 8.45, 8.58, 8.63
6	28-Jan	Definition of strain	Ch. 8	8.65, 8.70, 8.71
7	2-Feb	Tensile/compression behavior, constitutive laws	Ch. 9	9.2, 9.3, 9.7, 9.15, 9.19
8	4-Feb	Axial loading, superposition principle	Ch. 10	10.2, 10.7, 10.19
9	9-Feb	Superposition principle continue	Ch. 10	10.26, 10.38, 10.41
10	11-Feb	Torsional deformation	Ch. 11	11.1, 11.5, 11.17, 11.34, 11.43
11	16-Feb	Torsional deformation continue	Ch. 11	11.55
	18-Feb	Midterm		
12	23-Feb	Bending, strain-curvature relations	Ch. 12	12.2, 12.14, 12.19, 12.24
13	25-Feb	Shear stress in beams	Ch. 13	13.2, 13.7, 13.15, 13.18, 13.23, 13.30
14	2-Mar	Combined loading	Ch. 14	14.1, 14.5, 14.11, 14.14, 14.19, 14.23, 14.36, 14.41
15	4-Mar	Stress/strain transformations	Ch. 15	15.1, 15.2, 15.3, 15.9, 15.14, 15.30
	9-Mar	Spring break		
	11-Mar	Spring break		
16	16-Mar	Mohr's circle, strain rosettes	Ch. 15	15.31, 15.33, 15.38, 15.55, 15.70, 15.74, 15.77
17	18-Mar	Hooke's law for multi-axial loading, plane stress vs. plane strain	Ch. 15	15.86, 15.97
18	23-Mar	Design of beams, displacement relations	Ch. 16	16.26, 16.29, 16.35, 16.43
19	25-Mar	bending displacement continued	Ch. 16	16.45, 16.51
	30-Mar	Midterm		
20	1-Apr	Yielding and Fracture under Combined Stresses	notes	Dowling: 7.2, 7.5, 7.13, 7.22
21	6-Apr	continue	notes	TBD
22	8-Apr	Fracture of Cracked Members	notes	TBD
23	13-Apr	continue	notes	TBD
24	15-Apr	Fatigue	notes	TBD
25	20-Apr	continue	notes	TBD
26	22-Apr	Review		
	TBD	Final exam		