

SAMPLE SYLLABUS

The table below describes a sample syllabus for fourteen week, three credit semester course. It can be adapted for a ten week four credit course. There is more material in the book than covered by the syllabus below.

Class	Section	Topic	Home Problems
1	1.0-1.2	Introduction, Stress	
2	1.3-1.4	Stress transformation	1.1,1.5,1.9,1.15, 1.18,
3	1.3-1.4	Stress transformation	1.25,1.35,1.40
4	1.5-1.7	Strain, Finite difference	1.45,1.47*,1.51*,1.58,1.66
5	1.8	Strain transformation	1.68
6	2.0-2.2	Material description	2.2,2.3, 2.10,2.15,2.18
7	2.3	Failure theories	2.19,2.20,2.21
8	2.4-2.5	Stress concentration factor	2.25,2.27
9	2.6	Stress intensity factor	2.31,2.33
10	3.0-3.1	1-D Structural members	3.3,3.4,3.12
11	3.0-3.1	1-D Structural members	3.16,3.17,3.19,
12	3.0-3.1	1-D Structural members	3.28,3.30
13	3.2	Beam deflection 4th order	3.42,3.40
14	3.2	Discontinuity functions: Axial & Torsion	3.43*,3.44
15	3.2	Discontinuity functions: Beams	3.48,2.51
16	3.2	Discontinuity functions: Beams	3.53
17		EXAM 1	
18	4.1	Composite axial members	4.1,4.4,4.5,4.9
19	4.2	Composite shafts	4.10,4.14
20	4.3	Composite beams	4.19,4.21,4.23
21	5.3	Temperature, Initial Strain	5.3,5.4,5.7*,5.11
22	5.4	Thermal axial strains	5.13, 5.17, 5.22
23	5.5	Non-linear material models	5.23
24	5.6	Elastic-perfectly plastic: Axial	5.27,5.28,5.30
25	5.7	Elastic-perfectly plastic: Shafts	5.33,5.35*,5.40*,5.41
26	5.8	Elastic-perfectly plastic: Beams	5.47,5.53,5.54,5.58
27	5.9	Non-linear models in structural members	5.60,5.63
28	6.0-6.1	Unsymmetrical bending of beams	6.4.6.6,
29	6.0-6.1	Unsymmetrical bending of beams	6.10,6.11,6.14
30	6.2	Shear stresses in thin open section	6.21,6.22,6.23
31	6.2	Shear center of thin open section	6.26,6.28,6.33
32		Exam 2	
33	6.2	Shear center of thin open section	6.34,6.36
34	6.3	Shear stresses in thin closed sections	6.43,6.44,6.45
35	6.4	Torsion of thin closed sections	6.53,6.55
36	7.0-7.3	Strain Energy, Work	
37	7.4	Virtual work	7.1,7.2,7.5
38	7.5	Dummy unit load method	7.18
39	7.5	Dummy unit load method	7.19,7.21
40	7.6	Castigliano's Theorem	
41	7.6	Castigliano's Theorem	7.23,7.24, 7.28,7.29
42		REVIEW	

FINAL