

Lecture date	Reading	Subject	Homework
6-Jan	2.1, 2.2, 2.3, 2.4 to pg. 38	Vectors, tensors, orthogonal transforms	pg 24: 1,2,,3,4,5,7,8,13,15,19; pg. 46: 1,2,3,6,8,11,12
11-Jan	2.4 to pg. 46	eigenvalues, eigenvectors	pg. 47: 18, 19, 20, 21, 23, 24
13-Jan	2.5, 3.1	div, grad, curl, stress intro.	pg. 61: 2, 3, 4, 8, 10, 13, 14
18-Jan	MLK		
20-Jan	3.1, 3.2	stress, tractions	pg. 80: 1, 2, 3, 6, 9.a, 13; pg. 84: 17, 18(c)
25-Jan	3.3	Principal stress	pg. 93: 1, 2, 5, 8, 9, 10
27-Jan	3.4-3.5	Mohr's circle, Plane stress	pg. 100: 1, 2, 3, 4, 5, 6; pg. 111: 1, 2, 3, 6
1-Feb	4.1	2-D small strain, unit extension	pg. 135: 1, 2, 3, 5, 6, 10, 14
3-Feb	4.2	3-D small strain and rotation	
8-Feb	4.3	spatial and material derivatives	
10-Feb	4.4	L=D+W	pg. 152: 1, 3, 4, 5, 9
15-Feb	4.5	finite strain	pg. 170: 1, 3, 5, 13a, 13b
17-Feb	4.6	rotation, stretch, F.R.T.	pg. 182: 1, 3
22-Feb	review		
Feb-42	midterm		
1-Mar	5.1	Green's theorem, Stokes thm. Divergence thm.	
3-Mar	5.2	Conservation of mass continuity	pg. 212: 1, 2, 5,7
8-Mar	Spring break		
10-Mar	Spring break		
15-Mar	5.3	conservation of momentum equilibrium	pg. 224: 1, 3, 4, 11
17-Mar	5.4	First law of thermodynamics	pg. 235: 1, 2, 5, 6
22-Mar	5.5-5.6	Virtual work, second law	pg. 248: 1; pg. 258: 1, 3, 5, 7, 10, 11
24-Mar	5.7	Discussion of HW, Eqs. of state	pg. 271: 1.2, 4, 7
29-Mar	5.6	Dissipation functions, Legendre transformations	pg. 272: 10; pg. 277: 1, 2, 3, 5
31-Mar	6.1-6.2	Derivation of constit. Laws	pg. 294: 1, 3, 6, 7, 13, 14
5-Apr	6.3, 6.4	fluids, polymers	pg. 304: 1, 2, 3, 6, 7; pg. 324: 1, 3, 4, 10
7-Apr	6.5-6.6	plasticity	
12-Apr	6.5-6.6	plasticity	pg. 343: 1, 2, 4, 5
14-Apr	6.7	frame indifference	
19-Apr	7.1-7.2	Fluid dynamics, Navier Stokes	pg. 433: 1, 7, 9
21-Apr	review		
4/26-4/30	final examination		