

ENGR 251 Dynamics

Fall 2008

Tentative Calendar (subject to change) for 8th edition of the Textbook

Week	Date	Topic (Lecture Number)	Reading	Homework
1	8/19	Introduction to Dynamics (11-1), Kinematics of particles in rectilinear motion (11-2, 11-2E)	11.1-5, Appendix A	#1 due 8/26 11: 20, 30, 48, 55, 109, 126, 133
	8/21	Kinematics of particle system (11-3, 11-3E), Curvilinear motion in rectangular coordinates (11-4, 11-4E)	11.6, 11.9-12	
2	8/26	Curvilinear motion in other coordinates (11-5, 11-5E, 11-5E2)	11.13-14	#2 due 9/4 11: 143, 170 12: 10, 126, 38, 72
	8/28	Kinetics of particle: FMA method (12-1, 12-1E, 12-1E2, 12-1E3)	12.1-6	
3	9/2	Angular momentum (12-2, 12-2E, 12-2E2)	12.7-10	#3 due 9/16 13: 14, 21, 27, 69, 73, 193
	9/4	Work, Kinetic Energy, and power (13-1, 13-2, 13-2E, 13-2E2)	13.1-4	
4	9/9	Test 1(11-12)		#4 due 9/25 13: 121, 146, 155, 172 14: 5, 22, 31, 41
	9/11	Potential energy (13-3, 13-3E)	13.5-8	
5	9/16	Impulse and momentum(13-4, 13-4E, 13-4E2)	13.10-11	#5 due 10/7 15: 12, 17, 45, 48, 61, 63, 70
	9/18	Impact (13-5, 13-6, 13-6E, 13-7, 13-7E)	13.12-15	
6	9/23	Particle systems Kinetics (14-1, 14-1E, 14-2, 14-2E, 14-2E2)	14.1-9	#6 due 10/16 15: 78, 84, 96, 112, 113, 121
	9/25	Rigid body translation and rotation (15-1, 15-2)	15.1-5	
7	9/30	Test 2(13-14)		#7 due 10/23 15:170, 176, 177, 251
	10/2	Relative velocity (15-3, 15-3E, 15-3E2)	15.6	
8	10/7	Instant center (15-4, 15-4E, 15-4E2)	15.7	#8 due 11/4 B: Download* 16: 6, 11, 39, 59, 69
	10/9	<i>No Class -- Flex Day</i>		
9	10/14	Relative acceleration (15-5, 15-5E, 15-5E2, 15-5E3)	15.8-9	#9 due 11/6 16: 80, 96, 100, 123
	10/16	Rotating reference frame (15-6, 15-6C)	15.10-11	
10	10/21	Rotating reference frame (15-6E, 15-6E2)		#10 due 11/13 17: 10, 17, 23, 29, 34
	10/23	Mass moment of inertia (16-1, 16-2, 16-2E)	Appendix B.1-B.5	
11	10/28	Test 3(15.1-15.11)		#11 due 11/18 17: 60, 63, 81, 85
	10/30	FMA in rigid bodies (16-3, 16-3E, 16-3E2, 16-3E3)	16.1-7	
12	11/4	Constrained plane motion (16-4, 16-4E, 16-4E2, 16-4E3, 16-4E4)	16.8	#12 due 12/2 17: 88, 96, 102, 131
	11/6	Work and Energy in rigid bodies (17- 1, 17-1E, 17-1E2)	17.1-7	
13	11/11	Work and energy in rigid bodies (17-1E3, 17-1E4)		#13 due 12/9 15: 184, 253, 236 18: 7, 45, 147
	11/13	Impulse and Momentum in rigid bodies (17-2, 17-2E, 17-2E2, 17-2E3)	17.8-10	
14	11/18	Rigid bodies impact (17-3, 17-3E)	17.11-12	#13 due 12/9 15: 184, 253, 236 18: 7, 45, 147
	11/20	Impact (17-3E2)		
15	11/25	Test 4(16-17.10)		#13 due 12/9 15: 184, 253, 236 18: 7, 45, 147
	11/27	<i>No Class – Thanksgiving</i>		
16	12/2	3-D kinematics (15-7, 15-7E, 15-7E2)	15.12-15,	#13 due 12/9 15: 184, 253, 236 18: 7, 45, 147
	12/4	3-D kinetics (18-1, 18-1E, 18-2, 18-2E)	B.6-8, 18.1-4	
17	12/9	3-D kinetics FMA (18-3)	18.5-8	#13 due 12/9 15: 184, 253, 236 18: 7, 45, 147
	12/11	Review		
18	12/16	Final Exam 4:30-6:30pm		

Notes: Weekly assignments are due every Thursday, except A8 due 10/14 and none due 11/27.

* This problem is available for download on WebCT