

ENGR 51 Dynamics

Summer 2007

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

Week	Date	Topic (Lecture Number)	Reading	Homework	
1	6/18	Orientation, Introduction to Dynamics (11-1), Kinematics of particles in rectilinear motion (11-2, 11-2E)	11.1-5, Appendix A	#1 11: 20, 30, 48, 55, 109, 126, 133	
	6/19	Kinematics of particle system (11-3, 11-3E), Curvilinear motion in rectangular coordinates (11-4, 11-4E)	11.6, 11.9-12		
	6/20	Curvilinear motion in other coordinates (11-5, 11-5E, 11-5E2)	11.13-14	#2 11: 143, 170 12: 10, 126, 38, 72	
	6/21	Kinetics of particle: FMA method (12-1, 12-1E, 12-1E2, 12-1E3)	12.1-6		
	6/22	Angular momentum (12-2, 12-2E, 12-2E2)	12.7-10		
	2	6/25	Work, Kinetic Energy, and power (13-1, 13-2, 13-2E, 13-2E2)		13.1-4
6/26	Test 1(11-12) , Potential energy (13-3, 13-3E)	13.5-8			
	6/27	Impulse and momentum(13-4, 13-4E, 13-4E2)	13.10-11	#4 13: 121, 146, 155, 172 14: 5, 22, 31, 41	
	6/28	Impact (13-5, 13-6, 13-6E, 13-7, 13-7E)	13.12-15		
	6/29	Particle systems Kinetics (14-1, 14-1E, 14-2, 14-2E, 14-2E2)	14.1-9		
	3	7/2	Rigid body translation and rotation (15-1, 15-2)		15.1-5
7/3	Test 2(13-14) , Relative velocity (15-3, 15-3E, 15-3E2)	15.6			
	7/4	<i>Holiday, no class</i>		#6 15: 78, 84, 96, 112, 113, 121	
	7/5	Instant center (15-4, 15-4E, 15-4E2), Relative acceleration (15-5, 15-5E, 15-5E2, 15-5E3)	15.7-9		
	7/6	Rotating reference frame (15-6, 15-6C, 15-6E, 15-6E2)	15.10-11	#7 15:170, 176, 177, 251	
	4	7/9	Mass moment of inertia (16-1, 16-2, 16-2E)	Appendix B.1-B.5	#8 B: Download* 16: 6, 11, 39, 59, 69
7/10	Test 3(15.1-15.11) , FMA in rigid bodies (16-3, 16-3E, 16-3E2, 16-3E3)	16.1-7			
	7/11	Constrained plane motion (16-4, 16-4E, 16-4E2, 16-4E3, 16-4E4)	16.8	#9 16: 80, 96, 100, 123	
	7/12	Work and Energy in rigid bodies (17- 1, 17-1E, 17-1E2)	17.1-7	#10 17: 10, 17, 23, 29, 34	
	7/13	Work and Energy in rigid bodies (17-1E3, 17-1E4)			
	5	7/16	Impulse and Momentum in rigid bodies (17-2, 17-2E, 17-2E2, 17-2E3)	17.8-10	#11 17: 60, 63, 81, 85
	7/17	Test 4(16-17.10) , Rigid bodies impact (17-3, 17-3E)	17.11-12	#12 17: 88, 96, 102, 131	
7/18	Impact (17-3E2)				
	7/19	3-D kinematics (15-7, 15-7E, 15-7E2)	15.12-15,	#13 15: 184, 253, 236 18: 7, 45, 147	
	7/20	3-D kinetics (18-1, 18-1E, 18-2, 18-2E, 18-3)	B.6-8, 18.1-8		
	6	7/23	Review		
	7/24	Final Exam 10:30am-12:30pm			

Notes: Assignments are due on Mondays, Wednesdays, and Fridays.

* This problem will be made available for download on Blackboard