

# ENGRD 203, Spring 2004

## Syllabus For ENGRD 203: Dynamics

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Text: Engineering Mechanics:Dynamics (5th Ed.; 2002; John Wiley) J. L. Meriam and L. G. Kraige

Date	Subject	Chapter	HW	HW #	due
T 1/27	Intro to Dynamics	1/1-7	1/4,9,12	1	F 1/30
R 1/29	Damped Harmonic Oscillator	8/1-2	8/7,21,25	2	
T 2/3	Forced Harmonic Oscillator	8/3	8/54,60,71	2	F 2/6
R 2/5	1D & 2D Kinematics	2/1-4	2/16,69,80,92	3	
T 2/10	n-t & r-theta Coordinates	2/5-6	2/102,108,162	3	F 2/13
R 2/12	3D and Relative Motion	2/7-8	2/170,190,193	4	
T 2/17	Constrained Motion	2/9	2/216,221,239	4	F 2/20
R 2/19	Conservation of Momentum	3/1-4	3/12,18,30	5	
T 2/24	Curvilinear Motion	3/5	3/56,88,99	5	F 2/27
R 2/26	Work and Energy	3/6-7	3/122,131,176	6	
T 3/2	Impulse and Momentum	3/8-10	3/190,226,241	6	F 3/5
<b>T 3/2</b>	<b>PRELIM I (1,2,3/1-5,8)</b>		7:30-9pm		
R 3/4	Relative Motion	3/14	3/310,319,331	7	
T 3/9	System of Particles	4/1-5	4/2,18,26,29	7	F 3/12
R 3/11	Kinematics of Rigid Bodies	5/1-3	5/9,29,32	8	

T 3/16	Relative Velocity due to Rotation	5/4-5	5/67,77,110	8	F 3/19
R 3/18	Relative Acceleration due to Rotation	5/6	5/126,144	9	
T 3/30	Motion Relative to Rotating Axes	5/7	5/158,161,167	9	F 4/2
<b>T 3/30</b>	<b>PRELIM 2 (1,2,3,4,5/1-5,8)</b>		7:30-9pm		
R 4/1	Rigid Body Dynamics	6/1-3	6/9,20,28	10	
T 4/6	Fixed Axis Rotation	6/4, 8/4	6/39,53; 8/88	10	F 4/9
R 4/8	General Plane Motion	6/5	6/77,89,99	11	
T 4/13	Work-Energy for Rigid Bodies	6/6	6/118,137	11	F 4/16
R 4/15	Impulse-Momentum for Rigid Bodies	6/8	6/179,204	12	
T 4/20	3D Rigid Body Kinematics	7/1-5	7/4,7,19	12	F 4/23
<b>T 4/20</b>	<b>PRELIM 3 (1,2,3,4,5,6,7/1-6,8)</b>		7:30-9pm		
R 4/22	General Motion of Rigid Bodies	7/6	7/29,39	13	
T 4/27	Angular Momentum of Rigid Bodies	7/7, A.B	7/57; Appendix B/7,47	13	F 4/30
R 4/29	Euler's Equations & Parallel-Plane Motion	7/9-10	7/73,79,87	14	
T 5/4	Gyroscopes and Precession	7/11	7/95,111,118	14	F 5/7
R 5/6	<b>REVIEW</b>				
<b>F 5/14</b>	<b>FINAL EXAM</b>		9:00-11:30am		