

ME/AE 160 Dynamics

Instructor	Xiaoping Du, Toomey Hall 290D, 573-341-7249, dux@mst.edu	
Lecture	Section A: 8:00 am – 8:50 am, Toomey Hall 250, MWF Section B: 9:00 am – 9:50 am, Toomey Hall 254, MWF	
Help session	3:00 pm – 5:00 pm, Monday, Toomey Hall 254	
Office hours	Please feel free to visit me anytime if I am in my office. You may also email me for an appointment.	
Homework	Homework is due by 5:00 pm Monday. Late submittal is not accepted.	
Website	Blackboard	
Make-ups	Missed exams result in zero points. If it is absolutely impossible for you to be present for the exam due to illness, emergency, or other reasons, you must notify me as soon as you are aware of it.	
Attendance	Each lecture introduces significant new materials. If class is missed, you are responsible for obtaining announced information, handouts, and notes from other students or from me. If you miss more than 2 or 3 class sessions and do not make them up, you will certainly get into difficulties.	
Reading	Reading text materials for each day's class is expected prior to attending class.	
Text	Engineering Mechanics – Dynamics, 13th edition, by Russell Hibbeler, Prentice Hall, 2013	
Grade	Homework	20%
	Computer assignments (ADAMS)	10%
	Hour exams (3)	45%
	Common final	25%
	TOTAL	100%

Schedule

Date	Day	Lecture	Topic	Reading
8/19/2012	M	1	Introduction & Kinematics	12.2-3
8/21/2012	W	2	Curvilinear Motion	12.4-6
8/23/2012	F	3	Curvilinear Motion	12.7
8/26/2012	M	4	Curvilinear Motion	12.8
8/28/2012	W	5	Dependent Motion	12.9
8/30/2012	F	6	Relative Motion	12.1
9/2/2012	M		Labor Day Holiday	
9/4/2012	W	7	Newton's Laws	13.1-4
9/6/2012	F	8	Equations of Motion	13.5-6
9/9/2012	M	9	Work & Energy	14.1-3
9/11/2012	W	10	Power/Conservative Systems	14.4-6
9/13/2012	F	11	Impulse and Momentum	15.1-3
9/16/2012	M		ADAMS and review	
9/18/2012	W		Exam 1	
9/20/2012	F	12	Impact	15.4
9/23/2012	M		ADAMS lab	
9/25/2012	W	13	Angular Momentum	15.5-7
9/27/2012	F	14	Translation & Rotation	16.1-3
9/30/2012	M	15	Absolute Motion	16.4
10/2/2012	W	16	Relative Velocity	16.5
10/4/2012	F	17	Instantaneous Center	16.6
10/7/2012	M	18	Relative Acceleration	16.7
10/9/2012	W	19	Relative Acceleration	16.7
10/11/2012	F	20	Rotating Axes	16.8
10/14/2012	M	21	Moment of Inertia	17.1
10/16/2012	W	22	Pure Translation	17.2-3
10/18/2012	F	23	Pure Rotation	17.4
10/21/2012	M	24	General Plane Motion	17.5
10/23/2012	W	25	General Plane Motion and review	17.5
10/25/2012	F		Exam 2	
10/28/2012	M	26	Work & Energy	18.1-4
10/30/2012	W	27	Conservative Systems	18.5
11/1/2012	F	28	Impulse and Momentum	19.1-3
11/4/2012	M	29	Impact	19.4
11/6/2012	W	30	3-D Kinematics	20.1-2
11/8/2012	F	31	3-D Kinematics	20.1-2
11/11/2012	M	32	3-D Kinematics	20.3
11/13/2012	W	33	3-D Kinematics	20.4
11/15/2012	F	34	3-D Kinematics	20.4
11/18/2013	M	35	3-D Kinetics and review	21.1
11/20/2013	W		Exam 3	
11/22/2013	F	36	3-D Kinetics	21.4
11/25-30/2012			Thanksgiving break	
12/2/2012	M	37	3-D Kinetics	21.4
12/4/2012	W	38	3-D Kinetics	21.2-3
12/6/2012	F	39	Review	21.2-3
12/12/2012			Final exam	8:00 – 10:00 am

This schedule is subject to change due to necessary content changes or other reasons.