

ME/AE160 and IDE150 - Dynamics - Summer 2012 - Class Policy

Instructor: Dr. Ryan S. Hutcheson
Office: 209 IDE
Phone: 573-341-4086
Email: rhutch@mst.edu

Office Hours: T/Th, 10:00AM to class time (tentative)

LEAD: TBD (will include teleconferencing for distance students)

Required: 1. Hibbeler, R.C., *Engineering Mechanics –Dynamics* (12th Edition), Prentice Hall.
2. Personal Response Device (i.e. a clicker), **for all non-distance students**

Class Work Structure:

Reading: Sections for reading are shown in the schedule. In-class quizzes will be given to test understanding of this material.

Homework: Recommended problems are shown in the schedule. These problems will not be graded. Completion of the recommended problems is suggested to prepare for the in-class and take-home quizzes.

Quizzes: Each day in class, an in-class quiz will be given. This quiz will usually be at the end of class and cover the material for the day. Distance students will complete the quiz via Blackboard, in-class students will complete the quiz via Clickers.

Take-home quizzes will be given twice a week (except during exam weeks), and will generally be due on Wednesdays and Fridays. Distance students must scan and submit these quizzes via Blackboard, in-class students will turn them in at the beginning of class.

Handouts: Slides used in class will be made available on Blackboard.

Exams: Exams 1, 2 and 3 will consist of in-class and take-home portions. In-class portions will be conceptual in nature and will consist of multiple choice, true/false questions, etc. Distance students will complete the in-class portion of the exams via Blackboard. Take-home portions will be problem-based and submitted in a similar manner to take-home quizzes.

Final Exam: Exam 2 is the final exam for IDE150 students. ME/AE 160 students will take an exclusively problem-based final exam. Distance students will be required to take the final exam in person or arrange suitable proctoring.

Points: In-class quizzes: 25 counted, 1 point each. Total: 25
Take-home Quizzes: 10 counted, 3 points each. Total: 30
Exam 1: 10 points (ME/AE160), 20 points (IDE150).
Exam 2: 10 points (ME/AE160), 25 points (IDE150)
Exam 3: 10 points (ME/AE160)
Final Exam: 15 points (ME/AE160)

Grading: ≥ 89.5 A, ≥ 79.5 B, ≥ 69.5 C, ≥ 59.5 D, < 59.5 F. Grade delineations will not be moved up and may be moved down at my sole discretion.

Homework: Completing the recommended problems is highly suggested for understanding of the material and preparation for quizzes and exams.

Cheating: Anyone caught cheating on an exam or quiz will be given a zero for the assignment and will be reported to the Office of Academic Affairs.

Attendance: This is a lecture-based class and attendance is necessary to ensure your understanding of the material. Attendance for in-class students will be checked each class period using the clicker system. Attendance for distance students will be checked via the Blackboard quizzes. I reserve the right to drop any student absent during four or more attendance checks. Absences may be excused under certain circumstances but only if I am notified via email and have approved before the absence takes place.

Availability of Recorded Lectures: Recorded lectures will only be available for students enrolled in the distance sections of the course.

In Case of Problems: If you are unable to resolve an issue regarding the class policy with me, please contact the following person:

Dr. J. Keith Nisbett

Associate Chair of Mechanical Engineering

nisbett@mst.edu

194 Toomey Hall

Dim.	Type	Body	Lecture Topic	Chapters	Suggested Problems	Day	Week	
Planar (2D)	Kinematics	Particles	Class Introduction/Vector Refresher	--		6/4	1	
			Rectilinear Motion	12.1-12.3	12 - 10,15,20,30,47	6/5		
			Curvilinear Motion	12.4-12.6	12 - 75,76,87,102,110	6/6		
			Normal-Tangential and Polar	12.7-12.8	12 - 118,130,132,159,170	6/7		
			Dependant and Relative Motion	12.9	12 - 195,203,214,220,230	6/8		
		Rigid Bodies	Fixed Axis Rotations	16.1-16.3	16 - 3,7,30,42,50,52	6/11	2	
			Relative Velocity	16.4-16.5	16 - 55,67,68,73	6/12		
			Instant Centers	16.6	16 - 89,93,98,101,104,107	6/13		
			Relative Acceleration	16.7	16 - 110,114,131	6/14		
			Rotating Axes	16.8	16 - 139,140,157,159	6/15		
	Exam 1 Review						6/18	3
	Exam 1						6/19	
	Particles	Newton's Laws	13.1-13.4	13 - 5,20,33,35,43	6/20			
		Equations of Motion	13.5-13.6	13 - 59,74,82,102,107	6/21			
	Rigid Bodies	Moment of Inertia	17.1-17.2	17 - 2,14,19	6/22	4		
		Translational Kinetics	17.3	17 - 14,38,55,63,90	6/25			
		Rotational Kinetics	17.4		6/26			
		General Plane Motion	17.5	17 - 103,109,111,114,123	6/27			
	Particles	Work-Energy for Particles (1)	14.1-14.3	14 - 15,23,34,39,41	6/28	5		
		Work-Energy for Particles (2)	14.4-14.6	14 - 61,67,83,99,106	6/29			
	Rigid	Work-Energy for Rigid Bodies (1)	18.1-18.5	18 - 15,26,44,56,67	7/2			
	Particles	Lin. Impulse/Momentum	15.1-15.3	15 - 5,19,31,42,46	7/3	5		
		Impact	15.4	15 - 59,69,86,91,107	7/5			
		Angular Momentum	15.5-7		7/6			
	Rigid Bodies	Planar Kinetics: Impulse/Momentum	19.1-19.3	19 - 10,23,31,34,37	7/9	6		
		Planar Kinetics: Impact	19.4	19 - 44,48,54,55	7/10			
	Exam 2 Review						7/11	
ME/AE160 Exam 2, IDE150 Final						7/12	6	
Note: IDE 150 topics do not include 3D material.								
3D	Kinematics	Rigid Bodies	3D Kinematics (1)	20.1-20.2	20 - 3,6,10,11,13,14	7/13*	7	
			3D Kinematics: General Motion	20.3	20 - 22,23,26	7/16*		
			3D Kinematics: Rotating Axes	20.4	20 - 42,47,51	7/17*		
	Kinetics		3D Kinetics (Impulse/Momentum)	21.1-21.4	21 - 14,27,35,38,32,37,44,46,59,50,51	7/18*		
			3D Kinetics (Work/Energy)			7/19*		
			3D Kinetics (Eqs. of Motion)			7/20*		
	ME/AE160 Exam 3 Review						7/23*	8
ME/AE160 Exam 3						7/24*		
ME/AE160 Final Exam Review						7/25*		
ME/AE160 Final Exam						--*		

*Only ME/AE160 students are required