

Lecture and Reading Schedule

Week	Day	Date	Topics	Reading	HW DUE
0	F	09/23	Syllabus, Motivation	1.1, 1.2, 1.3, 1.4	
1	M	09/26	1D position, velocity, and acceleration, definitions + graphical representations	2.1 - 2.3	
	T	09/27	1D motion under constant acceleration	2.4 - 2.6	
	W	09/28	Vectors, 2D constant acceleration, projectile motion	1.7 - 1.10, 3.1 - 3.3	
	F	09/30	Circular motion, relative motion	3.4, 3.5	PS1
2	M	10/3	Reference frames, force, types of force, identifying forces	4.1	
	T	10/4	Kinematical constraints	None	
	W	10/5	Newton's Laws, systematics of using Newton's Laws	4.2 - 4.6	
	F	10/7	Examples of problems where Newton's Laws are useful		
3	M	10/10	Applying Newton's Laws	5.1 - 5.4	
	T	10/11	Applying Newton's Laws		
	W	10/12	Applying Newton's Laws		
	F	10/14	Applying Newton's Laws		PS2
4	M	10/17	MIDTERM 1		
	T	10/18	Work and kinetic energy	6.1 - 6.3	
	W	10/19	Conservative/non-conservative forces and potential energy	7.1 - 7.5	
	F	10/21	Gravitational potential energy (for particles and systems) and spring potential energy		
5	M	10/24	Conservation of energy, conservation of mechanical energy		
	T	10/25	Applying energy conservation		
	W	10/26	Applying energy conservation		
	F	10/28	Momentum and impulse	8.1	PS3
6	M	10/31	Conservation of momentum	8.2 - 8.4	
	T	11/1	Center of mass	8.5	
	W	11/2	Mass flow	8.6	
	F	11/4	Applications of momentum conservation		
7	M	11/7	Applications of momentum conservation		
	T	11/8	Cumulative Review		
	W	11/9	Cumulative Review		PS4
	F	11/11	VETERANS DAY		
8	M	11/14	MIDTERM 2		
	T	11/15	Angular kinematics - angular position, velocity, acceleration	9.1 - 9.3	
	W	11/16	Torque, rigid body rotation, rotational inertia, NSL analog	9.4, 10.1, 10.2	
	F	11/18	Torque due to gravity, applications (ladder, lever/fulcrum)		
9	M	11/21	Angular momentum, relationship to torque, and ang. mom. conservation	10.5, 10.6	
	T	11/22	Angular momentum conservation applications		PS5
	W	11/23	LECTURE (TENTATIVELY) CANCELED		
	F	11/25	THANKSGIVING		
10	M	11/28	Rotational kinetic energy, rotation + translation	9.4 (again)	
	T	11/29	Cumulative Review		
	W	11/30	Cumulative Review		
	F	12/2	Cumulative Review		PS6