Week	Day	Date	Lecture	Reading	Topic	Tutorial	Pivot Lab
1	W	30-Sep	1	No reading	Introduction	Mathematical reasoning	Intro - Student Instructions and Hill Runner (Jessie Diggins)
1	F	02-Oct	2	1.5, 1.6, 2.1	Foundations		
2	M	05-Oct	3	2.2 - 2.8	1D motion	Acceleration in one dimension	Lab 1 An Introduction to Studying Motion: The Ping-Pong Ball Bazooka
2	W	07-Oct	4	2.9 - 3.4	Change in velocity		
2	F	09-Oct	5	3.5 - 3.8	Constant acceleration		
3	M	12-Oct	6	4.1 - 4.7	Momentum	Systems and momentum	Lab 2-1 Free Fall Five: Analyzing Motion of Objects in Free Fall (updated); Lab 2-2 Motion Graphing a Dry Ice Puck on a Ramp
3	W	14-Oct	7	4.8 - 5.3	Kinetic and internal energy		
3	F	16-Oct	8	5.4 - 5.8	Conservation of energy		
4	M	19-Oct	9	6.1 - 6.3	Relativity	Kinetic and internal energy	Lab 3-1 Blowdart Cart Collision; Lab 3-2 Glider Explosions
4	W	21-Oct	10	6.6 - 6.8	Center of mass		
4	F	23-Oct	11	7.1 - 7.4	Transfer of energy		
5	M	26-Oct	12	7.5 - 7.9	Gravitational potential energy	Forces and Newton's Laws	Lab 4-1 Boy on a Surfboard; Lab 4-2 Height vs Velocity for a Puck on a Ramp
5	W	28-Oct	13	7.10 - 8.5	Forces		
5	Th(night)	29-Oct	**Midterm 1**				
5	F	30-Oct	14	8.6 - 8.8	Equation of motion		
6	M	02-Nov	15	8.9 - 9.4	Impulse and work	Work and Conservation of Energy	Lab 5-1 Toy Car Investigation; Lab 5-2 Force and Motion During a Hockey Slapshot
6	W	04-Nov	16	9.5 - 9.8	Work and power		
6	F	06-Nov	17	10.1 - 10.4	2D motion		
7	M	09-Nov	18	10.5 - 10.6	Vector algebra	Potential energy diagrams	Lab 6-1 Energy Conservation for a Spring and a Cart; Lab 6-2 Forces on Objects on a Ramp
7	W	11-Nov		HOLIDAY			
7	F	13-Nov	19	10.7 - 10.8	Projectiles		
8	M	16-Nov	20	10.9 - 10.10	Coefficients of friction	Motion in two-dimensions	Lab 7-1 Friction: sliding on an inclined plane
8	W	18-Nov	21	11.1 - 11.2	Circular motions		
8	Th(night)	19-Nov	**Midterm 2**				
8	F	20-Nov	22	11.3 - 11.4	Rotational kinematics		
9	M	23-Nov	23	11.5 - 11.6	Angular momentum	No tutorial	Lab 7-2 Analyzing Rotational Motion using a Bicycle Drivetrain
10	M	30-Nov	24	12.1 - 12.3	Torque	Dynamics of rigid bodies	Lab 8-1 Torque and the Human Knee Joint; Lab 8-2 Rotational Collision: Dart Collides with Wooden Stick
10	W	02-Dec	25	12.4 - 12.5	Cons. of angular momentum		
10	F	04-Dec	26	12.6 - 12.7	Rolling motion		
11	M	07-Dec	27	12.8	Rotation vectors	Angular momentum	make-up
11	W	09-Dec	28	13.1 - 13.5	Universal gravity		
11	F	11-Dec	29	13.6 - 13.7	Gravitational potential energy		