

Date	Prob Solving (1 st 20 min of class— TRY these problems; be ready for discussion.)	Lecture Topics (Two ~15 minute parts separated by an in-class activity)
5/10 #1	Class policies and procedures	<ul style="list-style-type: none"> • The purpose of Physics (1.1) • Problem Solving in Physics (1.2) • Dealing with Numbers (1.3) • Physical Quantities and Units of Measure (1.4) • Dimensions and Units (1.5) • Algebra and Simultaneous Equations (1.6) • Trigonometry (1.7)
5/11 #2	Try by 5/11 Homework Chapter 1 Q: 5,6,9 P: 9,11,22,25,26,32,37,39,43,44,46	<ul style="list-style-type: none"> • Vectors (1.8) • Aristotle's Mechanics (2.1) • What is Motion? (2.2)
5/12 #3	Try by 5/12 Homework Chapter 1 P: 48,57,58, 59 Chapter 2 Q: 7,10,22 P: 1,3,10,13,15,20,22,23,32	<ul style="list-style-type: none"> • The principle of inertia (2.3) • Newton's Laws of Motion (2.4) • Discovery of Newton's Laws (2.5) • Thinking about the Laws of Nature (2.6) • Motion of a Spacecraft in interstellar Space (3.1)
5/13 #4	Try by 5/13 Homework Chapter 2 Q: 5,17,20 P: 41,42,43,44,47,49,50 Chapter 3 Q: 1,6,13,16 P: 2,5,6,11,14,21	<ul style="list-style-type: none"> • Normal Forces and Weight (3.2) • Free Fall (3.4) • Adding Friction to the Mix (3.3) • Cables, Strings, and Pulleys (3.5) • Finding the Missing Piece (3.6)
5/17 #5	Chapter 3 Q: 5, 10,19 P: 30,31,36,37,43,48,49,50,53,58,84	<ul style="list-style-type: none"> • Parachutes, Air Drag, Terminal Velocity (3.7) • Life as a Bacterium (3.8) • Statics (4.1)
5/18 #6	Chapter 3 Q: 14,17,18 P: 60,62,63,64,66,72,76 ,81 Chapter 4 P: 1,3,8,11,12	<ul style="list-style-type: none"> • Projectile Motion (4.2) • Further Applications of Newton's Laws (4.4) • Effect of Air Drag (4.6)
5/19 #7	Chapter 4 Q: 1,14,16,17 P: 15,17,19,23,47,51,59,63	<ul style="list-style-type: none"> • Reference Frames /Relative Velocity (4.3) • Detecting Acceleration (4.5) • Uniform Circular Motion (5.1) • Examples of Circular Motion (5.2)
5/20 #8	Chapter 4 P: 36,38 Chapter 5 Q: 8, 13 P: 1,8,11,16,17,18,21,29	<ul style="list-style-type: none"> • Newton's Law of Gravitation (5.3) • Deep Notions in Newton's Law (5.6) • Planetary Motion and Kepler's Laws (5.4) • Moons and Tides (5.5)

5/24	Chapter 5 Q: 5, 14,18 P: 35,39,47,49,51	EXAM #1
5/25 #9	Exam Return and review	<ul style="list-style-type: none"> • Force, Displacement and Work (6.1) • Kinetic Energy and Work/Energy Theorem (6.2) • Potential Energy (6.3)
5/26 #10	Chapter 6 Q: 1,7,10,11 P: 4,5,15,17,19,22,24,31 ,37,41	<ul style="list-style-type: none"> • More Potential Energy functions (6.4) • Conservative vs. Nonconservative Forces (6.5) • What is Friction anyway? (6.6) • Power (6.7) • Work, Energy and Molecular Motors (6.8)
5/27 #11	Chapter 6 Q: 2,5,9,17 P: 58,61,70,73,76,77,81,83	<ul style="list-style-type: none"> • Momentum (7.1) • Force and Impulse (7.2) • Conservation of Momentum (7.3) • Collisions (7.4)
5/31	*** NO CLASS – MEMORIAL DAY***	
6/1 #12	Chapter 7 Q: 1,5,8,14 P: 1,3,5,7,10,14, 21,24,28,29	<ul style="list-style-type: none"> • Momentum and inelastic events (7.5) • Center of Mass (7.6) • Describing Rotational Motion (8.1) • Torque and Newton’s Laws for Rotation (8.2)
6/2 #13	Chapter 7 Q: 18,20 P: 33,35,40,41,44 Chapter 8 Q: 7,8,9 P: 2,6,7,15,16,19,20	<ul style="list-style-type: none"> • Rotational Equilibrium (8.3) • Moment of Inertia (8.4) • Rotational Dynamics (8.5) • Combined Rotation/Translation (8.6)
6/3 #14	Chapter 8 Q: 4,14,16,19 P: 25,38,41,43,44,51,53,55,65,70,71	<ul style="list-style-type: none"> • Kinetic Energy of Rotation (9.1) • Conservation of Energy in rotation (9.2) • Angular Momentum (9.3) • Angular Momentum and Kepler’s 2nd Law (9.4)
6/7 #15	Chapter 9 Q: 5,7,10,17,18,19 P: 1,3,12 15 ,29,35,41,42,49,50	<ul style="list-style-type: none"> • Pressure and Density (10.1) • Fluids and the effect of Gravity (10.2) • Hydraulics and Pascal’s Principle (10.3) • Buoyancy and Archimedes’ principle (10.4)
6/8 #16	Chapter 10 Q: 4,5,7,9,14,18,21 P: 6,9,13,22,24,29,36,37,39, 43,45,49	<ul style="list-style-type: none"> • Continuity and Bernoulli’s Equation (10.5) • Real Fluids: A molecular View (10.6) • General Features of Harmonic Motion (11.1) • Examples of Simple Harmonic Motion (11.2)
6/9 #17	Chapter 10 P: 57,59,64,68,72,76 Chapter 11 Q: 1,4,15,17 P: 1,4,6,7,13,18,19,22,25	<ul style="list-style-type: none"> • Harmonic Motion and Energy (11.3) • Stress, Strain and Hooke’s Law (11.4) • Damping and Resonance (11.5)
6/10	Chapter 11 Q: 2,8,9,19,20 P: 35,37,41,46,48,52,55,60,61,62	Exam #2

6/14 #18	Exam Return and Review	<ul style="list-style-type: none"> • What is a Wave? (12.1) • Describing Waves (12.2) • Examples of Waves (12.3) • Wavefronts (12.4) • Superposition and interference (12.5)
6/15 #19	Chapter 12 Q: 1,3,19,20 P: 1,5,6,7,9,10,17,21,26,32,35	<ul style="list-style-type: none"> • Reflection (12.6) • Refraction (12.7) • Standing Waves (12.8) • Sound is a Longitudinal Wave (13.1) • Amplitude and Intensity of a Sound wave (13.2) •
6/16 #20	Chapter 12 Q: 7,14 P: 40,41,44,45,48,49,52,56 Chapter 13 Q: 5, 11,13 P: 1,4,9,13,21,23,25,26	<ul style="list-style-type: none"> • Standing Sound Waves (13.3) • Beats (13.4) • Reflection and Scattering of Sound (13.5) • Doppler Effect (13.6)
6/17 #21	Chapter 13 Q: 3,7,17 P:33,34,36,37,39,43,44,46,50,51,54	<ul style="list-style-type: none"> • Thermodynamics and “systems” (14.1) • Temperature and Heat (14.2) • Thermal Equilibrium (14.3) • Phase changes (14.4)
6/21 #22	Chapter 14 Q: 3,6,9,11 P: 1,3,5,9,11,13,14,17	<ul style="list-style-type: none"> • Thermal Expansion (14.5) • Heat Conduction (14.6) • Convection (14.7) • Heat Flow by Radiation (14.8) • Molecular Picture of a Gas (15.1) • Ideal Gases: Experimental Perspective (15.2) • Ideal Gases and Newton’s Laws (15.3)
6/22 #23	Chapter 14 Q: 4,12,16,20,24 P: 19,23,29,36,41,43,45,47,53	<ul style="list-style-type: none"> • Kinetic Theory (15.4) • Diffusion (15.5) • 1st law of Thermodynamics (16.1) • 0th law of Thermodynamics (16.2) • Conservation of Energy (16.3)
6/23 #24	Chapter 15 Q: 4,16,17 P: 2,6,11,18,25,29 ,34,36,55	<ul style="list-style-type: none"> • Thermodynamic Processes (16.4) • Reversible and irreversible processes (16.5) • Heat Engines and other devices (16.6) • Entropy (16.7) • Absolute Zero (16.8)
6/24 #25	Chapter 16 Q: 1,2,3,5,7,17,20 P: 1,2,5,6,9,11,12,26,32,46,47,50	Exam Review
6/25	FINAL EXAM AS SCHEDULED.	