

Physics 105 Reading Assignments – Fall 2013

<u>Due date</u>	<u>Lecture #</u>	<u>Reading Assignment</u>
Sept. 3	1	(a) the syllabus (you can download pdf class website or get a printout from the bookstore), and (b) the sections on "position" and "velocity" from Chapter 2 of the textbook.
Sept. 5	2	These sections from Chapter 2 of your textbook: Acceleration; Motion Diagrams; 1D motion with constant acceleration; Free falling objects
Sept. 10	3	These sections from Chapter 3 of your textbook: Vectors and their properties; Components of a vector; Displacement, velocity, acceleration in 2D; Relative velocity.
Sept. 12	4	These sections from Chapter 3 of your textbook: "Motion in 2D" (also called "Projectile Motion" in older editions). ALSO look over at least one past exam 1 from the class website in enough detail that you can vote on problems for me to go over in class, below.
Sept. 17	5	These sections from Chapter 4 of your textbook: Forces; Newton's first law; Newton's second law; Newton's third law
Sept. 19	6	This section from Chapter 4 of your textbook: Applications of Newton's laws
Sept. 24	7	This section from Chapter 4 of your textbook: Forces of friction
Sept. 26	8	These sections from Chapter 5 of your textbook: Work; Kinetic energy and the work-energy theorem; Gravitational potential energy
Oct. 1	9	These sections from Chapter 5 of your textbook: Spring potential energy; Systems and energy conservation; Power; Work done by a varying force
Oct. 3	10	Look over at least one past exam 2 from the class website in enough detail that you can vote on problems for me to go over in class, below.
Oct. 8	11	These sections from Chapter 6 of your textbook: Momentum and impulse; Conservation of momentum; Collisions; Glancing collisions. <i>Note:</i> We are skipping the section on rocket propulsion.
Oct. 10	12	These sections from Chapter 7 of your textbook: Angular speed and angular acceleration; Rotational motion under constant angular acceleration; Relations between angular and linear quantities; Centripetal acceleration
Oct. 15	13	These sections from Chapter 7 of your textbook: Newtonian gravitation; Kepler's laws
Oct. 17	14	These sections from Chapter 8 of your textbook: Torque; Torque and the two conditions for equilibrium; Examples of objects in equilibrium. <i>Note:</i> We're skipping the section on Center of Gravity.
Oct. 22	15	These sections from Chapter 8 of your textbook: Relationship between torque and angular acceleration; Rotational kinetic energy
Oct. 24	16	This section from Chapter 8 of your textbook: Angular momentum
Oct. 29	17	Look over at least one past exam 3 from the class website in enough detail that you can vote on problems for me to go over in class, below.
Oct. 31	18	These sections from Chapter 9 of your textbook: States of matter; Density and pressure; Variation of pressure with depth; Pressure measurements; Buoyant forces and Archimedes' Principle. <i>Note:</i> We are skipping the section on Deformation of Solids.
Nov. 5	19	These sections from Chapter 9 of your textbook: Fluids in motion; Other applications of fluid dynamics. <i>Note:</i> We are skipping the sections on Surface tension and Transport phenomena
Nov. 7	20	These sections from Chapter 10 of your textbook: Temperature and the Zeroth law of thermodynamics; Thermometers and temperature scales; Thermal expansion of solids and liquids; Macroscopic description of an ideal gas
Nov. 12	21	These sections from Chapters 10, 11, and (if you have 6th edition) 12 of your textbook: The kinetic theory of gases; Heat and internal energy; Specific heat; Latent heat and phase change
Nov. 14	22	These sections from Chapters 11 and 12 of your textbook: Energy transfer; Work in thermodynamic processes; The First Law of thermodynamics; Thermal processes (in some editions this is included in the First Law section). <i>Note:</i> We're skipping the section on Global warming. <i>Another note:</i> We won't talk about any adiabatic processes today, so you can stop reading the last section when you get to that

- part.
- Nov. 19 23 These sections from Chapter 12 of your textbook: Thermal processes, from the adiabatic processes part until the end (in some editions this is still in the "First law" section); Heat engines and the 2nd Law of Thermodynamics. *Note:* We're skipping the sections on Entropy and Human metabolism.
- Nov. 21 24 Look over at least one past exam 4 from the class website in enough detail that you can vote on problems for me to go over in class, below.
- Dec. 3 25 These sections from Chapter 13 of your textbook: Vibrations and Waves chapter, up to and including "The speed of waves on springs" section
- Dec. 5 26 These sections from Chapter 13 of your textbook: Interference of waves; Reflection of waves. Also these sections from Chapter 14: Everything up to and including "Spherical and plane waves" section.
- Dec. 10 27 These sections from Chapter 14 of your textbook: The Doppler effect; Interference of sound waves; Standing waves; Standing waves in air columns