version 4b

Physics 121 Course Schedule
Fall 2010 — Professor Shawhan

	HW due	*Lecture topic*	*Book sections*	*Tutorial*	*Lab*
Aug 30		All about the course			
Sep 1		Representing position and motion	1.1–1.3	Survey	*** No lab *****
Sep 3	HW 1	Graphing motion	2.1–2.3		
Sep 6		*** Labor Day — No class *****			
Sep 8		Acceleration	2.4	*** No tutorial *****	*** No lab *****
Sep 10	HW 2	The case of constant acceleration	2.5–2.7		
Sep 13		Numbers, units, and uncertainty	1.4		
Sep 15		Force and mass: Newton's laws	4.1, 4.2, 4.5, 4.6	The meaning of speed	Measurement
Sep 17	HW 3	Springs, strings, and atoms	4.3, 4.4		
Sep 20		Newton's third law	4.8		
Sep 22		Equilibrium, apparent weight, drag	5.1, 5.3, 5.6	Interpreting graphs and equations	Grandfather Clock, part 1
Sep 24	HW 4	Review and discussion			
Sep 27		**Exam 1**			
Sep 29		Vectors	3.1–3.3	Newton's third law	Grandfather Clock, part 2
Oct 1		Exam 1 post-mortem; More vectors			
Oct 4		Relative motion; Sideways accel.	3.5–3.7		
Oct 6		Newton's laws in 2-D	4.4–4.7	Reconciling common sense and Newton's laws	Let it Roll
Oct 8	HW 5	Applying Newton's laws	5.2, 5.4, 5.7		
Oct 11		Friction	5.5		
Oct 13		More applications of Newton's laws	5.8	The purpose of free-body diagrams	Let it Roll, continued
Oct 15	HW 6	Uniform circular motion	3.8, 6.1		
Oct 18		Circular motion and forces	6.2, 6.3		
Oct 20		Circular motion continued; Gravity	6.3, 6.4, 6.6	Momentum	No Free Launch, part 1
Oct 22		Gravity and orbits	6.6, 6.7		
Oct 25	HW 7	Review and discussion			
Oct 27		**Exam 2**		Work and energy	No Free Launch, part 2
Oct 29		Momentum	9.1–9.3		
Nov 1		Conservation of momentum	9.4–9.6		
Nov 3		Work, energy, and power	10.1, 10.2, 10.8	Common sense and equations: Torque	Roller Coaster, part 1
Nov 5	HW 8	Kinetic and potential energy	10.3, 10.4		
Nov 8		Conservation of energy	10.6, 10.7		
Nov 10		Rotational motion and torque	7.1–7.3	Properties of matter	Roller Coaster, part 2
Nov 12	HW 9	Rotational dynamics	7.4–7.6		
Nov 15		Equilibrium and balance	8.1, 8.2		
Nov 17	HW 10	Review and discussion		Making sense of pressure in a liquid	Gravity, part 1
Nov 19		**Exam 3**			
Nov 22		Density and pressure in fluids	13.1–13.3		
Nov 24		Buoyancy; Fluids in motion	13.4, 13.5	*** No tutorial *****	*** No lab *****
Nov 26		*** Thanksgiving holiday — No class *****			
Nov 29		Viscosity and fluid flow in tubes	13.6, 13.7		
Dec 1		Thermal energy and temperature	11.4, 11.5	Gases in containers	Gravity, part 2
Dec 3	HW 11	Heat flow	11.5		
Dec 6		Thermal properties of gases	12.2, 12.3		
Dec 8		Using thermal energy; entropy	11.6–11.8	Heat and temperature	Make-up lab / Survey
Dec 10	HW 12	Course discussion and review			
Dec 18		**Final Exam: 8:00–10:00 a.m.**			