

**Physics I**

Instructor: Eric Kramer      office: Fisher 118      phone: x7476

Class Meets: Fisher 113, MWF 11:10am - 12:05, 1:20pm – 2:15

Texts:      *Physics for scientists and engineers, 4th edition* by Giancoli

Web site:      <http://www.simons-rock.edu/~ekramer/phys100/>

Grading:      Homework (5%), labs (19%), four exams (15% each), final exam (16%).

Coreq:      Students must be registered for Calculus I (Math 210) or have already completed a similar course.

Homework:      Homework will be due Friday before class. You are free to work with other students provided that: (1) you list the names of all collaborators on your paper and (2) the work turned in should be in your own words (no copying).

Labs:      T 1:50-4:45, F 2:20-5:15 \*\* note non-standard time \*\*  
There will be six 3-hour lab meetings during the semester. Check the schedule to see if your lab section is meeting. Your lab grade will be based on participation in lab and on your lab reports. **No make-ups are offered for the labs. Students more than ten minutes late will get a zero.**

Exams:      No books or notes will be allowed. **No make-ups are offered for the exams.**

Office Hours: M 10:10-11:10 am, W 2:15-3:15 pm, TR 12:50–1:50 pm. If these times aren't convenient, stop by and make an appointment. For quick questions, send me an e-mail at

ekramer@simons-rock.edu

## Tentative Class Schedule

Phys 100

date	topic	reading	lab
Aug 27	intro	ch. 1	
29	1-d kinematics	2.1-2.4	tues: no lab
31	uniform acceleration	2.5-2.7	fri: lab1, sec1
Sep 3	vectors	3.1-3.5	
5	2-d kinematics	3.6	tues & fri: lab1, sec 2
7	projectile motion	3.7-3.8	
Sep 10	circular motion	5.2	
12	relative velocity	3.9	tues: lab 1, sec 1
14	review		fri: lab 2, sec 1
Sep 17	<b>Exam 1</b>		
19	Newton's laws	ch. 4	tues & fri: lab 2, sec 2
21	weight and normal force	4.6	
Sep 24	tension and pulleys	4.7-4.8	
26	friction	5.1	tues: lab 2, sec 1
28	circular motion	5.3-5.4	fri: lab3, sec1
Oct 1	gravity & Kepler's laws	6.1-6.5	
3	review	HW due wed	tues & fri: lab 3, sec 2
5	<b>Exam 2</b>		
<b>Fall Break</b>			
Oct 15	work and KE	7.1-7.4	
17	more work and KE		tues: lab 3, sec 1
19	potential energy	8.1-8.2	fri: lab 4, sec 1
Oct 22	conservation of energy	8.3-8.8	
24	momentum/center of mass	9.1-9.2,9.4-9.6	tues & fri: lab4, sec2
26	collisions	9.7-9.10	
Oct 29	solid body rotations	5.2;10.1,10.3	
31	KE_rot	10.8-10.9	tues: lab 4, sec 1
Nov 2	torque	10.4-10.7	fri: lab5, sec 1
Nov 5	angular momentum	11.1	
7	review		tues & fri: lab5, sec2
9	<b>Exam 3</b>		
Nov 12	equilibrium/pressure	12.1,12.3;13.2-13.6	
14	<b>Diversity Day - no class</b>		tues: lab5, sec1
16	buoyancy	13.7	
<b>Thanks giving</b>			
Nov 26	simple harmonic motion	14.1-14.4	
28	pendula and resonance	14.5-14.8	
30	waves	15.1-15.4;16.1-16.2;32.2	fri: lab6, sec1
Dec 3	superposition/interference	15.6,15.8;16.6;34.3	
5	standing waves/doppler	15.9,16.4,16.7	tues & fri: lab6, sec2
7	diffraction/hearing	15.11,16.3	
Dec 10	review		
12	<b>Exam 4</b>		tues: lab 6 , sec 1