

## PHY317K General Physics I, Spring 2005

**Class Meetings:** Unique number 59175 (TTh 9:30 - 11:00 am) Painter Hall 2.48  
Unique number 59190 (TTh 11:00 am - 12:30 pm) Painter Hall 2.48

**Instructors:** Sacha Kopp (RLM 10.218, 471-0461) - Office hours: T-Th 1:00 - 3:00pm  
email: kopp@mail.hep.utexas.edu

Greg Sitz (RLM 10.313, 471-0701) - Office hours: Mon 10:30-11:30am;  
Tue 5-6pm, or by appointment  
email: gositz@physics.utexas.edu

**TA's:** Zarko Pavlovich (ENS 16N) - Office Hours MW 3:00-4:00pm  
email: zarko@hep.utexas.edu  
Vince Velocci (RLM 9.220)  
email: velocci@physics.utexas.edu

**Discussion Sessions:** M-Thu from 5-6 pm in RLM 5.118

**Prerequisites:** M408C or M408K with concurrent enrollment in M408L; and credit or concurrent registration for PHY117M. PHY117M is a distinct class, with a separate grade, however it is a co-requisite for this course.

**Text** - *Physics* Fifth Edition, Volume 1, by *Resnick, Halliday and Krane*. The material covered and the order in which it will be covered are shown on the next page.

**Note:** There are two sections of PHY317K offered in the Spring semester of 2005. Each will follow the same course schedule and format and be taught in a similar style.

**Grading** - The breakdown is: Homework 20%, In-class exams (best 2 of 3): 40%, Final Exam 40%. Homework and test scores will be weighted as just described and a composite score ( $S$ ) of between 0 and 100 for the course will be calculated. The final grades for the course will be determined using this composite score as follows:  $S \geq 85 \Rightarrow A$ ;  $85 > S \geq 70 \Rightarrow B$ ;  $70 > S \geq 60 \Rightarrow C$ ;  $60 > S \geq 50 \Rightarrow D$ ;  $50 > S \Rightarrow F$ . The composite score will not be rounded, that is 84.99 is less than 85.

- **Homework - 20% of grade** - There will be six homework assignments during the semester. The dates on which the homework will be distributed and will be due are shown on the syllabus on the next page. All homework assignments will be weighted equally (even though they may cover different amounts of material and have different numbers of problems) and none will be dropped.
- **In-class Exams - 40%** - Three in-class exams will be given: dates are February 10, March 29, and May 3. You must take the exams with the section you are registered in. The scores from the best two of these three exams will count toward your final grade. Each will be worth 20%.
- **Final Exam - 40%** The final is comprehensive and it is *required*. You must take the final exam with the section you are registered in. Please see the syllabus on pg. 3 of this handout for the final exam dates.

The exams will be closed book and closed notes, and no calculators or other aids of any type are allowed. A cover sheet with relevant formulas and constants will be provided. This cover sheet will be available in advance of the exams.

The in-class exams and the final will be multiple choice and will closely resemble the homework in format and level of difficulty. Even though only two of the three in-class exams will count toward your semester grade, you are strongly advised to take all three. The final exam will be cumulative, and the best way to prepare for the final is to keep up with the material as it is covered in class. This means being prepared for and taking all the in-class exams.

Unless a *substantial* illness or family emergency is documented with a note from a physician or the dean's office, no make-up exams will be given. Any potential absences must be discussed with Drs. Kopp or Sitz *prior* to the exam in order to have a make-up. Make-up exams will be oral and taken within 72 hrs. of the missed exam. Under normal circumstances, a missed exam will simply be your dropped score.

If you are absent from a examination for the observance of a religious holy day you may complete the work missed within a reasonable time after the absence, if proper notice has been given. Notice must be given at least seven days prior to the exam.

All homework and exams, including the final, will be multiple choice. Exam questions will closely resemble homework questions, so doing the homework is important preparation for the exams. Since all problems will be multiple choice, there will be no partial credit. Unless **one and only one** answer is **clearly** marked, there will be no credit for that problem. Written solutions to homework and exam problems will be posted asap.

The HW due dates for the two sections will be identical and all HW is due at the beginning of lecture on the day listed. The HW will be picked up by the TA *exactly* when the bell rings and taken for grading. No late HW will be accepted, so if you must plan ahead to have a colleague drop off your HW on your behalf, please do so. There will be six HW assignments this semester.

There will be up to four problem sessions each week conducted by the TA's. Attendance is optional. These are here for you if you want outside help. It is strongly suggested that you make a regular habit of coming to one (or more) of these each week and regularly work through problems. Do not make the mistake of coming to the problem session only on the night before HW is due – these are usually crowded by scores of procrastinators and rarely would you have your questions answered.

**Other:** The last date to drop the course without possible academic penalty is February 14, 2005. The last day to drop the course for academic reasons is March 28, 2005.

Please notify the instructors of any modification/adaptation you may require to accommodate a disability-related need. You will be requested to provide documentation to the Dean of Students' Office, in order that the most appropriate accommodations can be determined. Specialized services are available on campus through Services for Students with Disabilities.

**Alternatives:** This document (as well as other course related material, including homework and test scores) will be available on BlackBoard.

## PHY 317K Syllabus — Spring 2005

Class	Date	Topic	Chapter	Homework
1	1/18 Tue	Math review / Measurement	1	#1 (due 1/27)
2	1/20 Thu	Motion Along a Straight Line	2, Sec4-6	
3	1/25 Tue	Vectors	2, Sec1-3	
4	1/27 Thu	Motion in Two and Three Dimensions	4	#2 (due 2/8)
5	2/1 Tue	Force and Motion - I	3	
6	2/3 Thu	Force and Motion - II	5	
7	2/8 Tue	Review for Exam 1	1-5	
8	2/10 Thu	<b>Exam 1</b>	1-5	
9	2/15 Tue	Systems of Particles	7	#3 (due 3/1)
10	2/17 Thu	Collisions and Momentum	6	
11	2/22 Tue	Kinetic Energy/Work	11	
12	2/24 Thu	Potential Energy	12,13	
13	3/1 Tue	Rotational Kinematics	8	#4 (due 3/24)
14	3/3 Thu	Rotational Kinematics	8	
15	3/8 Tue	Rotational Dynamics	9	
16	3/10 Thu	Angular Momentum	10	
	3/15 Tue	Spring break	-	-
	3/17 Thu	Spring break	-	-
17	3/22 Tue	Gravity	14	
18	3/24 Thu	Review for Exam 2	6-14	
19	3/29 Tue	<b>Exam 2</b>	6-14	
20	3/31 Thu	Fluid Statics	15	#5 (due 4/12)
21	4/5 Tue	Fluid Dynamics	16	
22	4/7 Thu	Oscillations	17	
23	4/12 Tue	Waves - I	18	#6 (due 4/28)
24	4/14 Thu	Waves - II	18	
25	4/19 Tue	Sound	19	
26	4/21 Thu	Special Relativity	20	
27	4/26 Tue	Special Relativity	20	
28	4/28 Thu	Review for Exam 3	15-20	
29	5/3 Tue	<b>Exam 3</b>	15-20	
30	5/5 Thu	Review for Final Exam	1-20	
	5/11 Wed	<b>Final - U# 59190</b> (9:00 - 12:00 noon)	1-20	
	5/14 Sat	<b>Final - U# 59175</b> (9:00 - 12:00 noon)	1-20	

### Quotes

“You do not know anything until you have practiced” -R. P. Feynman

“90% of success is just showing up” - Woody Hayes

“What led me more or less directly to the special theory of relativity was the conviction that the electromotive force acting on a body in motion in a magnetic field was nothing else but an electric field” - Albert Einstein (1952)

“How often have I said to you that when you have eliminated the impossible, whatever remains, however improbable, must be the truth?” - Sherlock Holmes (Sir Authur Conan Doyle)