

PHYSICS 201 – Spring '93

Prerequisites : Calculus (Math 221 or equivalent).

Materials needed : **Text**: R. Serway, Physics for Scientists and Engineers, 3rd edition updated version.

Laboratory Manual: Rollefson and Richards, Laboratory Experiments in General Physics.

Laboratory notebook: preferably spiral bound with cross hatched ruling. Bring to first laboratory meeting.

Calculator: Preferably one with trigonometric, exponential, and logarithmic functions. Know how to use it and be sure that batteries are charged for exams.

Lectures : The lectures are to supplement the, not substitute for, reading and studying the text. They will be shared by Profs. Reeder and Roesler.

Laboratory : Follow the "General Instructions" in the laboratory manual (pages 1-3). The experiments are to be written up during the laboratory period in the lab notebook. The lab notebook is not to be taken from the laboratory. **YOU MUST COMPLETE AT LEAST 10 OF THE 11 LABORATORIES ASSIGNMENTS IN ORDER TO RECEIVE CREDIT FOR THE COURSE.** Make up time is provided during the week of the exam **only** for the labs given in the preceding exam period.

Homework : The home work problems are assigned in the syllabus for each week and should be handed in at the first meeting of the discussion section after the assignment. Homework will be considered in your grade. Feel free to discuss the homework with others, but you will not benefit by simply copying another's work. The solutions will be explained in your discussion section and will be available in the Physics Library.

Office Hours : Teaching Assistants will have office hours in the consultation room (1402 Sterling Hall). You may go to the office hours of any T.A. (hours to be announced). Prof. Reeder will have office hours at 9 to 11 and 1430 to 1600; Tuesday and Thursday or by appointment. Prof. Roesler (to be announced).

Examinations : **DO NOT REGISTER FOR THIS COURSE IF YOU ARE NOT SURE THAT YOU WILL BE ABLE TO ATTEND ALL EXAMS.** Makeup exams will be **not** be given. The missing exam will be prorated using other exam scores, if you have a written medical excuse. There will be three one hour exams on the dates shown (Wednesdays) at 5:05 pm. Rooms to be announced. The exams will be closed book, however, you may bring **one** 5" x 8" card (crib sheet) to each exam.

Grading : The course grade will be made up of 75% exams (16% for each hour of examination) and 25% discussion, homework and labs.

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Spring '93

PHYSICS 201 SYLLABUS

Week	Date	Chapter	Lab Topic	Homework
1	T Jan. 19	Chapter 1	No Lab	1,10,26,38,42
	R 21	Chapter 2		4,15,24,29,46
2	T 26	Chapter 3	M-1	9,24,32,48,66
	R 28	Chapter 4		10,28,37,44,64
3	T Feb. 2	Chapter 5	M-2	12,25,26,30,32,34
	R 4	Chapter 5		38,40,43,52,57,62
4	T 9	Chapter 6	M-4	8,10,15,22
	R 11	Chapter 6		43,52
5	T 16	Chapter 7	Make-up	11,19,25,40,47
	W 17	EXAM 5:05 pm Ch 1 - 6		
	R 18	Chapter 7,8		54,65,70,(8)-1,10
6	T 23	Chapter 8	M-10	12,22,32,38,49
	R 25	Chapter 9		13,18,28,35,58
7	T Mar. 2	Chapter 10	M-5	2,11,18,24,29
	R 4	Chapter 10,11		32,36 (11) 2,7,15
8	T 9	Spring Vacation		
	R 11	Spring Vacation		
9	T 16	Chapter 11	Make-up	21,28,32
	W 17	EXAM 5:05 pm Ch 7 - 11		
	R 18	Chapter 11		36,43
10	T 23	Chapter 12	M-6	8,10,22,32,37
	R 25	Chapter 12,13		35,46 (13) 3,10,15
11	T 30	Chapter 13	M-9	18,22,29,39,48
	R Apr. 1	Chapter 14		10,15,20,30,41
12	T 6	Chapter 14,15	M-7	44,54,57 (15)-12,13,23
	R 8	Chapter 15		27,35,37,38,47,80
13	T 13	Chapter 19	Make-up	2,32,35,42,66
	W 14	EXAM 5:05 pm Ch 11 - 15		
	R 15	Chapter 19		42,66
14	T 20	Chapter 20	M-15	3,12,19,32,37
	R 22	Chapter 20,21		46,74 (21) 6,7
15	T 27	Chapter 21	H-2	12,18,19,29,63
	R 29	Chapter 21,22		66,71,80 (22) 3,14,17
16	T May 4	Chapter 22	H-4	18,20,49,51,56
	R 6	Review		
	F 14	FINAL EXAM 7:25 pm Ch 1 - 22		

TA tips for Physics 201, Spring, 1993

The initial organizational meeting will be held on Monday, January 18 at 9:00 AM in 4274 CH. All TA's must attend!

TA meetings will be at ^{0830 Tuesday morning} 3:15 on ~~Friday afternoons~~ ^{4274 CH} in ~~3015 Steading~~. They should take no more than half an hour. You are asked to be prompt for all course activities.

Lab policy

1. The laboratory equipment necessary to complete each lab will be set up the week before it is to be done by the students. Please familiarize yourself with the equipment and procedures so that you can answer any questions that arise.
2. Switching lab sections is not allowed.
3. Lab books are not to be taken out of the labs by the students. You may protect them yourself as you see fit, but the books are not to be taken home to be cleaned up or "worked on" by the students.
4. For each laboratory, we will decide whether to grade it by grading the notebooks or having a lab quiz in the next lab section. The first lab will be graded by notebook, the second by quiz. You are to announce the grading decision for each lab at the beginning of that lab.
5. In order for a student to be allowed to perform his laboratory assignment during a make-up session instead of during his scheduled time, he must obtain written permission from his own TA. This permission should only be granted in cases of documented medical or family emergencies.
6. Please do not start any laboratory before the scheduled start time.
7. If a major illness or family emergency arises so that you cannot make your scheduled laboratory, it is your responsibility to find another TA to take your place, as well as notifying one of the professors.

Exam policy

1. Each TA is to be present while the students are taking their exams. Please record the attendance of the students in your section taking the exam. Make sure that each student from your section personally hands you his/her exam.
2. The TA's and professor writing each exam will get together and standardize their grading procedures so that the grading of exams will be fair and uniform. The exams will be made up so that hopefully the burden of grading will be felt equally by all TA's by the end of the semester.
3. To avoid possible prejudice during discussion sessions, the TA's will not be given a copy of an exam until the time of the exam. This way no student will have an advantage over any other through inadvertent discussion of problems related to the exam.

Grading

1. Homework: Homework assigned in the previous week will be collected during the first discussion section of the week. TA's record the number of problems answered, but do not grade the homework. Homework sets are returned during the second discussion section of the week. The solution sets will be written by the TA's and are to be distributed to the physics library (5 sets) on the Thursday after the assignment week.
2. Quizzes: One 10-minute quiz will be given each week during the discussion section of the TA's choice. The quiz will be one of the homework problems due that week with trivial modifications. There will be no quiz given during the discussion section immediately after an exam.

3. Exams: The solutions will be broken down considerably to indicate how partial credit is to be assigned. In general, we will take off one point for numerical errors or wrong units. Propagation of errors from one part of a problem to another should not result in additional loss of credit beyond that initially deducted. The relationship between numerical and alphabetic grades will be determined in consultation with the TA's at the end of the semester. Part of this consultation will involve your personal evaluation of a student, based on performance in lab and effort during discussion sessions. For this reason, please try to get to know all of your students, and become familiar with how they operate during labs.
4. Lab Notebooks: Each lab report selected for grading is to be graded on a scale from one to ten in half point increments. Five points is failing and six points is barely passing. A ten should be given in only extremely exceptional cases, where the report could be used as a template for an ideal lab report. A 9.5 stands for a report where everything is perfectly correct, and so on from there. We do not expect detailed grading. Labs are to be graded before the next laboratory occurs.
5. Final TA Grade: This is to be based on 60% Lab, 20% Discussion Quizzes, and 20% TA evaluation of Lab, Discussion, Homework, and Quiz performance. The score is placed on a 100 point scale, with a median in the 70 - 80 point range. Do not renormalize your scores. The course professors will normalize the TA grades.

Discussion Sections

1. Work out for the students example problems as requested by students, brought up in lecture or of your own choosing.
2. Pick problems out of Serway that are similar to those in the current homework assignment to work out interactively in class. Quizzes will be given as specified above. Students should be encouraged to discuss methods and procedures for tackling problems. For example, ask them what they would do next at each step of the solution. This way, you can lead them by the hand until they understand how to solve physics problems, and you also get an idea of what kind of backgrounds the students have and where their problem areas lay.
3. *If a major illness or family emergency arises so that you cannot make your scheduled discussion section, it is your responsibility to find another TA to take your place, as well as notifying one of the professors.*

Office Hours

1. The meetings are held in room 1402 Sterling as indicated in the schedule. TA's must sign up for one office hour per discussion section taught on the schedule sheet. Only one TA per time block. All Physics 201 students can attend any of these meetings, not just those in the presiding TA's own section.
2. *If an emergency arises so that you cannot make your scheduled office hours, it is your responsibility to find another TA to take your place.*

Send people who want to change sections or add the course should be told to use touchtone registration during the first week. After that, you are to advise them that such changes are very difficult to make, and if they insist, you are to send them to Jean Buehlman (262-2629) in the Physics Department office. She has to approve all changes so that one section does not become overloaded.

Instructors:

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Fred. Roesler, B621 Sterling, 262-1495