University of California at Berkeley
Department of Physics

Physics 7C Course Information - Spring 2021

Lecture Information Delivery: T Th, 8:00-9:30 am starting 1/19

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Office hours: T 1:00 – 2:00 pm (by Zoom; see below) starting 1/19

As you know, the entire course will be taught remotely this semester, both lectures and discussion sections. You are encouraged to attend both in real time. Indeed, this is the only way you can ask questions if you are lost or confused in class. However, we realize that real-time attendance may not be feasible for all of you. The videos of all lectures will archived and accessible for the entire semester.

Please note that all dates and times in this document (and for the class as a whole) are listed in Pacific time. If you are in a different time zone it is your responsibility to ensure that you properly convert each time to your local one. Furthermore, please note that CA follows daylight savings time changes. This means that, after March 14, the conversion to your local time zone may change.

First two weeks: You must attend (watch in real time or soon after) ALL your discussion/laboratory (D/L) sections during the first two weeks of class to remain enrolled, including the DS scheduled before the first lecture [check]. If, on the contrary, you want to drop the class, it is YOUR responsibility to do it before the drop deadline, otherwise you will have to complete the course. **The Drop Deadline is Feb 10.** Please contact Heather Makiharju in Student Services (hmakiharju@berkeley.edu) for more detailed enrollment information.

Course WWW URL: Once you are registered in the class, you should have access to the course website on bcourses: https://bcourses.berkeley.edu
The site contains course information. We will be posting all announcements and there, along with other useful information. It is your responsibility to check for announcements regularly. Make sure your email address is correct, as we will often be distributing information through bcourses mailings. To receive these messages automatically, please go to your settings on bcourses and adjust them appropriately.

Graduate Student Instructors: This semester, there is no Head GSI, Instead, your instructor (SS), asks that you direct the following procedural questions to the two regular GSIs, I will try to handle all other issues, but I may be seeking help myself, so my response may be a bit sluggish.

Daniel Gardeazabal. daniel.gardeazabal@berkeley.edu for issues relating to labs

Kyle Ritchie. kyle_ritchie@berkeley.edu for DSP issues and those relating to the homework

Required Materials:

- **Textbooks:** Giancoli, *University Physics, Vol. 3*
  Custom Edition for UCB
  Publisher: Pearson ©
  Edition: 4th
  ISBN: 9780558229047
  Follow these directions to rent this book.

  Serway et al Modern Physics
  Publisher: Cengage L
  Edition: 3Rd
  ISBN: 9780534493394
  to be rented through Amazon: https://www.amazon.com/Modern-Physics

• **Lab manual/Workbook** All the labs will be done online, as described below. You are to answer pre-lab questions, view the videos, then answer relevant lab questions. See Assignments, in bcourses. If you want your own paper copy of the manual, you can get it through Copy Central:
https://copycentral.redshelf.com/book/1706378/physics-7c-lab-manual-1706378-none

• **Homework software:** *Mastering Physics* (access code: stahler19072)

Readings: Reading the textbook and working problems is very important. Be prepared for lecture and section by reading the assigned material in advance. Lectures and sections both assume that some of the basic material has been learned from the text already.

Teaching/learning philosophy:
As the instructor, my point is not only to teach you some physics, but also to teach you how to develop some skills like thinking critically, acquiring a logical thought process and focusing on the concepts more than applying some recipes.

For you students, it is crucial to realize that your academic performance is actually enhanced if you cultivate the following mindset: curiosity, desire to learn, tenacity and interactions with your peers.

Lectures: All lectures will be delivered via Zoom at the officially scheduled lecture times. The Zoom link is

https://berkeley.zoom.us/j/91528601257?pwd=dUlYaklrVWJEcXg0OU9uak9lSlErQT09

This link should be enough. Should you need them, the meeting ID is 915 2860 1257 and the passcode is **139376 .**
Everyone is urged to attend in real time. However, considering that some of you are currently abroad, the lectures will be recorded and posted to Berkeley Box. The link for lecture recordings is

https://berkeley.box.com/s/545z26w7e0hfrujk0t62s71t9fmbo0h5

The lectures will be posted within 24 hours.

Lectures will present the basic course material, but you should not be passively taking notes without thinking. I strongly recommend that you read the relevant sections in the textbook beforehand**. I also encourage you to ask questions.** Be aware that remote teaching makes it especially challenging **for** students to remain engaged. A lot of topics need to be covered, so the number of worked problems I can do in lecture will be limited. Other course components are essential to your understanding of the concepts. These include: discussion sections, homework, labs, and solving problems on your own, either from the book or elsewhere.

Discussion/Laboratory (D/L) Sections: Discussion and lab sections will be held via Zoom at the officially scheduled time**.** The DIS and LAB sections are not linked, so you can enroll in any two. Some D/L meetings will be discussions (1 hour) and some will be laboratory sessions (3 hours). In weeks without labs, the GSIs will hold an extra office hour, at what would be the lab starting time.

During the discussion section, you will be going through a weekly quiz problem that the GSI will have announced a few days prior. (The questions will be posted on Assignments > Discussion on bcourses.) He will then choose one of you to tell the rest of the section about your solution, ie., give a brief lecture. Your presentation will be graded (on a 1-5 scale), using criteria that your GSI will go over during the first section. This "DS" grade counts for 10 percent of the total (see below).

You must attend (watch in real time or soon after) ALL your registered discussion sections during the first 2 weeks -or you may be dropped from the course- and ALL the labs are mandatory. If you wish to change discussion sections, you have to make an official change through CalCentral. If you cannot find any available spot, you can seek someone in the class with whom to switch by going to the "Discussions" on bCourses. Put your request in the subject line – "From Section 2xx to Section 2yy", (state the sections you wish to swap) and your email address. If you find a match, coordinate so each of you simultaneously drops your D/L section on CalCentral and immediately signs up for the other one.

NB: If you are in a different time zone, and it is not feasible for you to attend either discussion sections or office hours, please let your GSI know right away, so that he can make alternative arrangements.

The lab instructions will be available before the lab meeting so that you can read them in advance. If anything is unclear, prepare a list of questions and ask you GSI during the lab meeting. You will be given a 48-hour window after the lab meeting to upload your lab report. Attending D/L sections is not mandatory (only the lab report is) but plays a major part in your understanding of the material. Sections provide an opportunity to work in smaller groups (even on Zoom!), ask more/deeper questions, discuss areas you are uncertain of, improve your problem-solving and writing skills. You are responsible for the material presented in D/L sections.

Make-up labs: The labs are recorded, and you should watch them and submit answers by the due dates requested. There will be no make-ups at the end of the semester. Because both the Physics Department and medical schools take seriously the classification of this class as laboratory-based, **you will not pass if you have more than one unexcused lab.**

Homework: Mandatory HW assignments are worth 10% of your total course grade. They will be due on a weekly basis to help you review the material covered in class during the previous week. The problem sets will be assigned via the online platform Mastering Physics. The first assignment is introductory, a practice run, and not worth any credit.

To register on MP, follow the steps given here. When you follow these directions, you will be given the option to rent the e-version of the Giancoli text. Ignore this. Only follow the previous link to actually rent the e-text.

Since my focus is more on the concepts than on plugging numbers into formulas, I will try to assign symbolic problems as much as possible. Each HW assignment will normally be due on Friday at 8:00 pm. The lowest HW score will be dropped. Working on homework problems is key to your in-depth understanding of the course material. For each HW problem, I encourage you to write down neat and detailed solutions in a notebook, in a logical and organized manner, as expected on an exam.

Exams: There will be 1 midterm examination and a final examination, both administered remotely, on:

Tuesday, Mar 10 , 7-9 pm
Thursday, May 13, 8-11 am

Details regarding what resources you will be allowed on exams will be posted.

Dr Stahler's Office Hours: These will conducted via Zoom. The Zoom link is
https://berkeley.zoom.us/j/99226110989?pwd=MDhzQ1UxR0NMVzljeEp5UmFkeStCUT09
The ID, should you need it, is 992 2611 0989 , and the passcode **727764 .**

Academic honesty: I strongly encourage you to work with your fellow students when appropriate, for example during D/L sections and when you do your HW. However, exams should reflect your own work any form of cheating will be treated very severely,

Grades: You are responsible for all information presented in lectures, D/L sections and HW assignments. Grades will be determined from a weighting of all the components as follows:

MT 30%;, FINAL: 35%; LABS: 15% ; HW: 10%; DS: 10%

Your numerical score will be used to assign a course letter grade for the class, with two exceptions discussed below. For the conversion of numerical scores to letter grades (A,B,C,D,F), we expect that the boundary between A and B will correspond to a numerical score between 70 and 80 (out of 100), with the exact boundary to be decided later. The B-C boundary will correspond to a score between 55 and 65, and the C-D boundary to 30 -40. When taking a class pass/no-pass (P/NP), a *P* grade corresponds to the equivalent of a *C-* grade or above. Note that the letter grade will only be assigned at the very end of the semester, after calculating the appropriately weighted numerical score. A course grade of "Incomplete"

will only be considered under circumstances beyond a student's control, and only when these circumstances have prevented the student from completing certain assignments, not just because performance suffered, and then, according to official university policy, only when work already completed is of at least "C" quality or better.

We are committed to ensuring a respectful and responsive learning environment. In the event of personal issues affecting your academic performance, or if you fall behind, please talk to me or GSI as soon as possible. If you need non-academic support throughout the semester, please check the following websites:
https://care.berkeley.edu
https://uhs.berkeley.edu/caps