University of California at Berkeley
Department of Physics

Physics 8B Course Information
Fall 2015

Lecture 1 Information
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Lectures: MWF, 3-4 pm, 1 LeConte starting 8/26
Office hours: MW, 1:30-2:30 pm in 397 LeConte starting 8/31
+ TTh, 2-3pm in Pimentel (backstage)

First two weeks: You must attend 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. 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 Friday 9/4**. Please contact Kathy Lee <kathyl@berkeley.edu> in Student Services (368 LeConte) 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 and I will be posting practice exams there along with other useful information when the time comes. Make sure your email address is correct, as we will sometimes be distributing information through bCourses mailings.

Head Graduate Student Instructor: Chien-I Chiang < cosmoaurora@gmail.com >

8B Course Center: 103 LeConte Hall

Additional help is available through the Student Learning Center (Golden Bear Center), the Honors Society, the Society of Physics Students, and the Physics Scholars Program. Inquire in the Physics Department Undergraduate Student Services Office (368 LeConte Hall) for further information.

Required Text: *Essential University Physics, Vol. 2* by Richard Wolfson (any edition)
Student Learning Handbook by Waterhouse and Gillespie

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.
On your side, as students, it is crucial to realize that your academic performance is actually enhanced if:
- your **motivation for learning** is higher than your desire to get a good grade,
- you set-up some study groups and test your understanding by trying to **teach the material to others**.

Lectures: Lectures are where we present the course material, but this is not self-sufficient. Because of the amount of material that needs to be covered, the number of examples covered in lecture will be limited, and therefore D/L sections and Homework problems are essential to your understanding of the material. ***You are welcome to ask questions during lectures!***

Discussion/Laboratory (D/L) Sections: You must be registered in DIS and LAB sections with the same number (e.g. DIS 203 & LAB 203). They meet twice a week for two hours. **You *must* attend ALL your *registered* discussion sections during the first 2 weeks or you may be dropped from the course.** If you wish to change discussion sections, you have to make an official change through Telebears (see the "section policy" document posted on bcourses for additional information). Some D/L meetings will be discussions and some will be laboratory sessions. **Attendance at D/L sections plays a huge part in your understanding of the material**, as sections provide an opportunity to work in smaller groups, ask

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: If you miss a lab session, you must make it up in another lab section that week, and turn it in to your GSI at the next meeting (read the "section policy" document for more details). 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, **your final grade will be lowered by one-third of a letter grade** (e.g., from A- to B+) **for more than 1 unexcused missing lab**.

Homework: **Working on homework problems is key to your in-depth understanding of the course material**. However, since the online software is based on numerical problems while my focus is mostly conceptual, a pool of additional problems (for practice only but highly recommended!) will be posted on bcourses, as well as the answer keys, in order for you to be better prepared to solve fully symbolic and conceptual problems. The mandatory homework will consist in a weekly problem set, typically 3-5 problems assigned via the online homework program Mastering Physics (class ID is **MPBORDEL52316**). **Each HW assignment will be due on Friday at 11:59pm, and the lowest HW score will be dropped**. **For each HW problem, whether it is for credit or for practice only, I encourage you to write down neat and detailed solutions, in a logical and organized manner, as expected on an exam.**

Exams: There will be 2 midterm examinations, on **Wednesday, Oct. 7** and **Monday, Nov. 9 (7-9pm)**, plus the cumulative final exam on **Tuesday, Dec. 15 (7-10pm)**. A Cal ID with your picture is required at all exams. More details regarding what you will be allowed to bring will be posted before the first midterm.

Academic honesty: We encourage you to work with your fellow students when appropriate. Any form of cheating will be treated very severely, most likely by your failing the entire course and by referral to Student Judicial Affairs: http://students.berkeley.edu/uga/conduct.asp.

Grades: Your attendance and active participation in all parts of the course is expected. You are responsible for all information presented in lectures and D/L sections. Grades will be determined from a weighting of all the elements as follows:

MT1: 25%
MT2: 25%
FINAL: 40%
LABS: 8%
HW: 2%

Your numerical score will be used to assign a course letter grade for the class, with two exceptions discussed below. The mapping of ranges of numerical scores to letter grades (A,B,C,D,F) will reflect our judgment as to what percentages correspond to various degrees of demonstrated performance and learning, based on our overall assessment of all assignments, their difficulty, and their weights.
When taking a class pass/no-pass (P/NP), a *P* grade corresponds to the equivalent of a *C-* grade or above. Out of the desire to maintain the high standards for education at the University of California, and fairness and meaningfulness of grades, the University and Physics Department have established "strongly recommended" guidelines for the distribution of A's, B's, and C's in any one course. For lower-division, non-honors courses like Physics 8B, the recommendations are as follows: 25% A+/A/A-, 40% B+/B/B-, and 35% C+ or below. Note that on each exam or lab, you will not be assigned a letter grade. It's only at the very end of the semester, after calculating the weighted average, that the numerical cutoffs will be placed in the grade distribution in order to assign letter grades.
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.
In the event of personal issues affecting your academic performance, or if you are falling behind, PLEASE talk to me (or Chien-I) as soon as possible. It's always easier to find a solution early in the semester than after the grades are submitted.

There are many resources available to help you, so we strongly encourage you to take advantage of them. Also, keep in mind that working with your peers and providing explanations to other students is an excellent way of improving your understanding of the course material.