UC Berkeley Physics Department
Physics 8B Course Information
Spring 2018, Lecture 1 and 2

Instructor: Achilles Speliotopoulos (ads@berkeley.edu)
Office Hours: Mondays, 1:30-2:30PM; Thursdays, 9:30-10:30AM; Fridays, 4:00-5:00PM
Office: 386 LeConte

Lecture 1:

Lecture: MWF, 3:00 - 4:00pm, 1 LeConte

Exam Info:
Midterm 1: Wednesday, Feb 28th, 7-9PM
Location: 155 Dwinelle

Midterm 2: Wednesday, April 11th, 7-9PM
Location: 155 Dwinelle

Final: Wednesday, May 9, 7-10PM
Location: TBD

Lecture 2:

Lecture: TuTh, 11:00 – 12:30pm, 1 Pimentel

Exam Info:
Midterm 1: Thursday, March 1st, 7-9PM
Location: 100 GPBB & 2050 VLSB

Midterm 2: Thursday, April 12th, 7-9PM
Location: 145 & 155 Dwinelle

Final: Thursday, May 10, 8-11AM
Location: TBD

*****Midterms will be 2 hrs exams scheduled between 7pm-9pm.*****

Midterm 1 Review Sessions (both lectures):

Review Session 1: TBD			
Review Session 2: Sunday,	02/25/18	12-2 PM	2050 VLSB

Midterm 2 Review Sessions (both lectures):

Review Session 1: Saturday,	04/07/18	3 - 5 PM	2050 VLSB
Review Session 2: Sunday,	04/08/18	3 - 5 PM	2050 VLSB

Head GSI: Yi-Chuan Lu (yclu@berkeley.edu)

The head GSI's office hours are Friday 4-6 in 103 LeConte. Feel free to email the head GSI administrative/logistic questions; make sure to add "8B Lec.1" or "8B Lec.2" to the subject line of your email.

Attendance in the first two weeks:
Be there! You must attend all of your discussion and lab sections during the first two weeks. This includes sections that meet before the first lecture. Otherwise, you will be dropped from the course.

Enrollment Changes:
In case you have time conflict with your original section, you can use the discussion page in bCourses to find someone who is willing to switch his/her section with you. This semester the enrollment limit reaches the room capacity, so we cannot add you manually if the section is full.

Early Drop Deadline: January 26th

8B Course Center:
The Physics 8B course center is located in 103 LeConte. GSI office hours will be held there, and students can meet to work on physics together. You may attend the office hour of any GSI. The office hour schedule is posted on bcourses.

Texts:
Essential University Physics (with Masteringphysics access code) vol. 2, 3e by Wolfson
Physics 8B Student Learning Handbook

*(**Acceptable)** Essential University Physics (with Masteringphysics access code) vol. 2, 2e by Wolfson, 2012*

The explanations and the examples provided in our textbook can be sparse and limited. Fortunately, there are a number of physics textbooks in print that cover—at least on a conceptual level—the same material that we will be covering this semester. These textbooks include the following.

Calculus-based:

"*Physics for Scientists and Engineers*," D. C. Giancoli (Yes, this is the book used in the 7-series)

"Fundamentals of Physics," D. Halliday, R. Resnick, J. Walker (What the 7-series used to use.)

"University Physics with Modern Physics," H. D. Young, R. A. Freedman, A. L. Ford (A more advanced book than the others, but our textbook seems to be a condensed version of this one.)

"Physics for Scientists and Engineers," R. A. Serway and J. W. Jewett

"Principles of Physics," R. A. Serway and J. W. Jewett

Algebra based:

"Physics: Principles with Applications," D. C. Giancoli

"Physics", J. D. Cutnell, K. W. Johnson

The edition of these textbooks has been deliberately left out. The edition does not matter as much as how understandable and useful you find the author's explanations.

Grading:

Midterm 1:	20%
Midterm 2:	20%
Final Exam:	40%
Homework:	10%
Labs:	5%
Quizzes:	5%

Grades will be assigned according to the Department of Physics Grading Policy: Approximately

25% of the registered students in the class will receive an “A”; 40% will receive a “B”; 35% will receive a “C”; and a small number of students will receive a “D” or “F”.

In accordance with University policy, an "Incomplete" for the course will only be given under circumstances beyond a student’s control, and only when work already completed is of at least C quality.

Discussion and Laboratory Sessions:

There are two, two-hour, discussion/laboratory sections each week. These sections, and what is done during them, are tightly integrated into the course, and are designed to help you learn the material. For a good part of the time during the semester, you will be doing worksheets from the Physics 8B workbook. They are structured to talk you through problems, and are designed to help you learn the material. ***Attending these discussion sessions, and completing the worksheet assigned is strongly recommended.***

There are seven laboratories scheduled during the semester. ***You must complete six of the seven labs/activities listed above to pass the course.*** For the detailed explanations on labs and the policy on making up a missed lab, please see the document Section and Lab Policy on bCourses in General Info.

To account for differences between how different GSIs grade laboratories, at the end of the semester your lab grades may be adjusted up or down so that the average lab grade in each laboratory section are the same.

On the weeks you do not have a scheduled lab, your GSI will be holding discussion in your lab room, either 201 or 205 LeConte.

Readings:
Be prepared for lecture and section by reading the assigned sections in advance. Lectures and sections both assume that some of the basic material has been learned from the text already; you will be at a significant disadvantage if that’s not true. Reading assignments are on bcourses.

Homework:
You will have a weekly problem set of varying difficulty, due ***Monday at 11:59PM***. We will drop your lowest homework score. ***Late homework will not be accepted.***

Homework Subscription:
All of our homework will be done through an internet subscription service, Mastering Physics. You can register for your Mastering Physics subscription by either purchasing a registration card along with your textbook, or online at the Mastering Physics site. Duplicate subscriptions will be deleted. Your subscription SID must match your actual UC Berkeley SID to receive homework credit for the course. You can log on to our homework service at this address: http://www.masteringphysics.com

To log in to Mastering Physics, you need:

- Student Access Code: purchase at the bookstore or on the Mastering Physics website

- ***Student ID: your 8-digit Cal student ID***
- **Lecture 1:**
  - Course Title: LEC_1_PHYSICS-8B_SPRING-2018
  - Course ID: LECONESPELIOPHY8BSP18
  - UC Berkeley Zip Code: 94720
- **Lecture 2:**
  - Course Title: LEC_2_PHYSICS-8B_SPRING-2018
  - Course ID: LEC2SPELIOPHY8BSP18
  - UC Berkeley Zip Code: 94720

Quizzes:
Five quizzes will be given during discussion sections during the semester. The quizzes will be short, and are meant to give you feedback on the degree of understanding that you have of the material covered. Your quizzes will be primarily graded on your solutions, not your answers. Your solutions must clearly demonstrate your reasoning with words, diagrams, and equations. The quizzes are intended to give you practice working out exam-style solutions. The quizzes are closed book, but you will be allowed a cheat sheet. **There will be NO makeup quizzes.** We will, however, drop the quiz with the lowest score.

To account for differences between how different GSIs grade quizzes, at the end of the semester your quizzes grades may be adjusted up or down so that the average quiz grade in each discussion section are the same.

Exams:
A Cal ID with your picture is required at all exams. On the first midterm you may bring handwritten notes written on both sides of one-half of an 8.5x11 sheet of paper; on the second exam you may bring both sides of one sheet of 8.5x11 paper, and on the final, one and one-half sheets. We will provide necessary constants on the exam itself. Cell phones, and all other electronic devices used for communication, are forbidden. ***Calculators are not allowed on the exams.***

You are required to take all exams. In the event of a significant emergency, i.e. non-trivial illness, death in the family, etc, you should contact me before the exam, or if this is impossible, immediately after the exam. ***The GSI's cannot excuse you from the exam.*** You will be required to provide documentation for your emergency, i.e. a doctor's note, etc.

Accommodations:
If you need disability-related accommodations in this class, if you have emergency medical information you wish to share with the instructor, or if you need special arrangements in case the building must be evacuated, please inform the head GSI immediately.

If you are in trouble (behind in homework, doing worse in the course than you would like, etc.) for whatever reason, please let us know. We'll find a way to help!