University of California, Berkeley, Department of Physics

Physics 7B, Course Information Sheet, Fall 2013

Lecture 1 Instructor	Lecture Info	Instructor Office Hours
Dr. Catherine Bordel	**Lec 1**: MWF, 11am-12pm	T-Th, 11am-12pm
Office: 311 Birge	1 LeConte	311 Birge
Email: cbordel@berkeley.edu		

First two weeks: You must attend your discussion and laboratory (DL) sections during the first two weeks of class to remain enrolled in the class. Any enrollment changes must be done via Tele-BEARS. You must attend your enrolled DL section. If you still have a problem, then contact the Head GSI.

Drop Deadline: Friday, Sept. 6, 2013.

Head Graduate Student Instructor: Lenny Evans <levans@berkeley.edu>

Any and all administrative issues should be addressed directly to the Head GSI.

7B Course Center: 107 LeConte (GSI office hours and work with other students).

Course Webpage: bSpace

Prerequisites: Physics 7A, Math. 1A and 1B; Math. 53 should be taken concurrently.

Texts:

- D. C. Giancoli, *Physics for Scientists and Engineers*, Volume 2 (custom edition for the University of California, Berkeley), 4th edition. You will generally be expected to read those sections of the book relevant to a given lecture before class. This is a **required** text.

- *7B Workbook*, by Hedeman, which will be packaged with Giancoli at the student bookstore. These will be used in section and are **required.** (The labs and problems cannot be posted on bspace since the workbooks are copyrighted).

- Mastering Physics. The workbook and Giancoli, along with Mastering Physics, are being sold as one unit.

- Students who wish to try extra problems can peruse at a copy of Elby, *Portable TA: Problem Solving Guide, Volume 2*, which is available in the 7B Course Center, 109 Le Conte. This popular resource contains practice problems about electricity and magnetism with completely worked solutions.

Exams and grades: There will be two midterm examinations and a final exam. Dates and times are listed on syllabus. Exams cannot be rescheduled and must be taken at the scheduled time. Anyone with an unresolvable conflict with exam dates (like another prescheduled exam in a different class) needs to contact the Head GSI immediately. Grades will be determined from a weighting of all the elements of the course approximately as follows:

1st midterm exam	21%
2nd midterm exam	21%
Final exam	35%
Homework	10%
Laboratory/Discussion	10%
Attendance	3% (random checks in DS throughout the semester)

A grade of "Incomplete" will only be given under dire circumstances beyond a student's control, and only when work already completed is of at least C quality.

University guidelines specify that in lower division courses, the total percentage of students getting an A should be roughly 25%, the percentage of students getting a B should be roughly 40%, and the percentage of students getting a C or lower should be roughly 35%. We will be following these approximate guidelines. The grade of D or F will be given to a small percentage of students displaying especially poor performance.

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 with a major credit card when you log on. Duplicate subscriptions will be deleted. 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
- Course ID: MPBORDEL18256
- UC Berkeley Zip Code: 94720

We strongly encourage you to try logging on to Mastering Physics today! If you have any problems logging in, email the Head GSI immediately, include the phrase "Mastering Physics" in the subject.

Homework: Working on homework problems is central to your learning the course material. You will have a weekly problem set of approximately 10 problems of varying difficulty. Assignments will appear on your Mastering Physics account approximately 7 days before they are due. Generally, homework will be due by **11:00pm on Fridays,** with possible exceptions when there is a midterm that week. The first assignment "Introduction to MasteringPhysics" is not graded, and shows you how to use the Mastering Physics homework system. The second assignment is your first real homework set of the semester, covering thermal expansion and ideal gas law. These 2 assignments will be due on Friday Sept. 6 at 11:00pm.

Late homework will not be accepted.

We encourage you to work with your peers on homework and learn from each other. However, when you submit an assignment online, you are stating that the solutions that you are presenting are *your own*, and not copied out of a book or from a friend. You will only learn from doing the problems if in the end you can formulate your *own* solutions! Violation of this policy is considered cheating.

Discussion/Laboratory Sections: Learning physics means *doing* physics—discussing physics concepts, working in the laboratory, and working (many) physics problems. Your Discussion/ Laboratory Sections ("DLs") are designed to help you learn the course material by working with it in as many ways as possible.

In most of your DL sessions you will be working in groups, with help from your GSI, on materials that we have developed to do the following: help improve your conceptual understanding of the course material, see how the material relates to everyday life, and build strong problem solving skills for each topic. The goal is for *you* to learn how to do physics, and the sections will thus not be based on your GSI lecturing or solving sample problems on the board while you just watch. We expect all students to attend and participate in sections, but you will not be graded on your performance in solving worksheet problems; they are, rather, for your practice.

Labs: In some weeks, as shown on the Course Syllabus, you will complete laboratory exercises that are also designed to help you explore some course concepts. **Lab sections meet every week** regardless of whether there is a lab for that week. Your work for the labs will be completed on handouts that can be found in your Physics 7B Workbook. You will hand in your work before you leave the lab. Because our labs are closely integrated with the rest of the course, they must be completed when scheduled. **If for a valid reason (e.g., illness) you must miss your DL section's lab time, alert your GSI and try to complete the lab with another DL section during that same week.** We will also leave one set-up in the room for an additional week, so if necessary one time during the semester with approval from your GSI, you may make up a lab in a different DL section the following week. **Uncompleted labs will count as a "zero" in computing your course grade, and your final course grade will be further reduced by 1/3 letter (B+ to B, etc.) for each missing lab.**

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 try to help! 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. **There is quite a lot of material in this course, and not a lot of time to learn it. There are many resources available to help you. We strongly encourage you to take advantage of them.**

Please contact your lecturer or the Head GSI with any suggestions, complaints, or complements.