

## Course Information

### Physics 7A Lecture Section 3

### Spring 2019

#### Lecture Information:

**Mike DeWeese** Tu Th 11:10am - 12:30pm, 1 LeConte Hall  
229 Birge Hall [deweese@berkeley.edu](mailto:deweese@berkeley.edu)  
Office hours: **•12:40-1:30pm Tuesdays in 229 Birge Hall**  
**•9:10-10:00am Wednesdays in 229 Birge Hall**

**First 2 weeks:** You must attend your discussion and laboratory sections during the first two weeks of class, or you may be **dropped from the course**; if you must miss section due to an unavoidable conflict, email your GSI and the Head GSI to avoid being dropped. If you need to add a discussion or lab section, check CalCentral. We cannot allow more than 24 students per discussion/lab section. You must add your registration through CalCentral. Since this is an **Early Drop Deadline (EDD)** course, you cannot change your registration after midnight on Friday Feb. 1, 2017. You are responsible to avoid scheduling conflicts with the midterms and final exam (times listed below) and with your discussion and laboratory sections.

**Course WWW URL:** Once you're registered in the class, you should have access to the course web site on bCourses (<https://bcourses.berkeley.edu>), where we will post course information. Make sure your email address is correct, as we will sometimes distribute information this way.

**Head Graduate Student Instructor:** Ezra Lesser <[elesser@berkeley.edu](mailto:elesser@berkeley.edu)>

**7A Course Center for GSI office hours:** 105 LeConte (You may attend *any* GSI's office hours)  
**Student Services:** **Kathy Lee** 368 LeConte Hall <[kathyl@berkeley.edu](mailto:kathyl@berkeley.edu)>  
**Amanda Dillon** 374 LeConte Hall <[amidillon@berkeley.edu](mailto:amidillon@berkeley.edu)>

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.

**Prerequisites:** MATH 1A is a prerequisite. MATH 1B should be taken concurrently.

#### Texts:

- D. C. Giancoli, *Physics for Scientists and Engineers*, Volume 1 (custom edition for the University of California, 2 Berkeley), 4th edition. We will cover Chapters 1 through 16, including most sections marked "Optional." You will generally be expected to read those sections of the book relevant to a given lecture before class. This is a **required** text.
- 7A Workbook*, by Birkett and Elby, which will be packaged with Giancoli at the student bookstore. These will be used in section and are **required**.
- MasteringPhysics*. This is the online homework facility. The workbook and Giancoli, along with Mastering Physics, are being sold as one unit. They are available at Ned's and the ASUC bookstore bundled in a package with the access code for the online homework (see below). This is much cheaper than buying them separately.
- Elby, *Portable TA: Problem Solving Guide*, Volume 1. This extremely popular resource contains practice problems about classical mechanics with completely worked out solutions. It is meant to be *worked*, not read. These practice problems are for your own benefit; we will not collect your work on them. We suggest working through at least some of the problems in Elby before attempting each week's homework assignment. This is a **suggested** text.

**Discussion/Laboratory (D/L) Sections:** You must be registered in DIS and LAB sections with the same number (e.g. DIS 205 & LAB 205). They meet twice a week for two hours. You *must* attend all of your registered sections during the first two weeks or you may be dropped from the course; if you must miss one, contact your GSI (and the Head GSI to be safe) so you don't get dropped. Some LAB meetings will be laboratory sessions and some will be discussions with **graded quizzes** in some cases. Attendance at *all* D/L sections is part of the course, and you are responsible for the material presented there. Sections provide an opportunity to ask questions, discuss areas you're uncertain of, and to further cement your understanding.

**Make-up labs:** If you miss a lab session, you must make it up within a week. E.g., if you miss your lab on Wednesday, you must make it up before your class the following Wednesday. Do the lab (unobtrusively!) during some other section, and turn it in to your GSI at the next meeting. There will be no make-ups at the end of the semester. Missed labs will have a bad effect on your grade. You must complete at least 6 of the 7 labs to pass the course, and missing one lab will lower your course grade by **one letter grade** (i.e., B+ → C+).

**Readings:** Reading the textbook and working problems is the best way to succeed in Physics 7A. 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 will be listed in the Working Syllabus posted and updated on bCourses.

**Homework:** Working on homework problems is central to your learning the course material — you learn physics by **doing it** more than you can from just reading the text or watching others solve problems. You will have a weekly problem set of varying difficulty from the text, due **Friday at 11:00 PM**. The first assignment is due Friday of the first week of classes, though it will not be for credit. **Late homework will not be accepted. We will, however, drop your lowest homework score.** Homework is assigned and submitted via the web (see info on course web site). This has the advantage that you get rapid feedback on whether you understand the material, and the system has some ability to prompt you past difficulties. Remember: the benefit comes from *working* the problems, not just from handing in the answers.

To submit your online homework you will need a Mastering Physics access code, which you can get bundled with the textbook and workbook for this course as described above. The website is located here: <http://www.pearsonmylabandmastering.com/northamerica/masteringphysics/>

You will also need the Mastering Physics Course ID for this lecture section, which is:

**MPDEWEESE71886**

You should attempt each homework problem for yourself, but we encourage you to work with peers when you get stuck. Try to get just enough help to overcome the current sticking point and then go back to trying to solve it on your own as much as possible. When submitting work as your own, you are stating that the solutions you are presenting are *your own*, and are not just answers 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 to new problems! Writing out your solutions before entering your answers into Mastering Physics will help you identify mistakes and prepare you for exams.

**Lectures:** Lectures are where we talk about some of the harder topics, and try to pull together knowledge you've gained in reading, D/L sections and from doing the homework. *It is OK to ask questions!* Just stick up your hand so I can see you (there are many students in this course, so you may have to wave your arm so I notice that your hand is up). My advice is *not* to attempt to get every word down in your notebook. Rather, try to think along with what's happening. *Thinking* about the material is a much better way of learning it than copying everything that is said in class into a notebook, in my view.

**Quizzes:** There will be 3 20-minute quizzes given during the semester, during either your Lab or Discussion sections. Please bring a piece of paper with you to section for this purpose, and bring a few extra sheets in case a friend forgets one.

**Exams:** There will be two, two-hour midterm examinations from **7-9pm on Tuesday Feb. 26, 2019** and **Tuesday April 2, 2019**, plus a three-hour final exam **Thursday, May 16, 2019, 8:00am-11:00am**. These

exam dates, as well as midterm locations and midterm and final exam review session details are given in a separate document on bCourses. A Cal ID with your picture is required at all exams. One side of one 8.5"x11" sheet of *handwritten* notes will be allowed on the 1<sup>st</sup> midterm, and a double-sided sheet will be allowed for the 2<sup>nd</sup> midterm and the final (you don't have to use the same sheet for MT2 and the final). You will write your answers directly on the exams and will not need a bluebook. You may use pencil or pen (I advise using a pencil), but **no** calculators, cell phones or other electronics, books, or scratch paper will be allowed.

**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 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, D/L sections, and on homework assignments. Grades will be determined from a weighting of all the elements as follows:

first midterm exam	15%
second midterm exam	25%
final exam	40%
homework	10%
quizzes	5%
Laboratory write-ups	5%

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

**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!

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.
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