

Physics 136b: Applications of Classical Physics

Winter 2019

Tu, Th 2:30-4:00pm, 269 Lauritsen. Prof: Sterl Phinney

1 Course Policies

1.1 Website

The course website is <http://www.caltech.edu/~esp/ph136b/>.

The descriptions of the text and other suggested readings, TA, hours and locations, announcements, class notes, homework, corrections, exams, etc., will be posted there, and it is your responsibility to keep up to date with the course information. The website is only accessible from the Caltech network. If you will be off campus, install VPN <https://www.imss.caltech.edu/help/vpn>, or ask a friend or TA to email you downloads.

1.2 Homework

The weekly homework assignments will be posted on the course website, about 1 week before they are due. They will be due at the beginning of Thursday's class. It is your responsibility to access the problem sets and to turn them in on time. Even if you are on travel when a problem set is due, the miracles of modern technology (scanners, phone cameras, email) will enable you to get pdf's or jpg's of your homework solutions on time to the instructor and TA. Just remember to reduce the resolution so the file size is reasonable (< 300 kbyte/page).

To satisfy Federal FERPA privacy rules, please choose a 6 digit code or pseudonym, and e-mail this to the TA before the first assignment is due. To simplify ordering manageable return piles, if you choose to use a pseudonym, precede it by a digit: e.g. "1Spock", or "177625" [phone code for the same], not "Spock". You will use this, and *not your name*, to label the assignments you hand in.

Solution sets will be posted on the website. Graded problem sets will be returned in class; uncollected homework will be placed in the rack to the left (North) of 269 Lauritsen. If your name, and not just your pseudonym or numerical code, appears on the assignment, you will have to pick it up directly from JoAnn Boyd in 321 Cahill. Blame FERPA.

1.2.1 Late policy

Problem sets will be accepted for 50% credit up to 1 week late at the due date for the following week's set, and after that not at all. You do not need to contact me or the TA to turn in a problem set late for 50% credit. You must hand in the assignment in one piece (i.e. not a fraction on time for full credit, and the rest late for partial credit).

1.2.2 Extensions

- You may take one full-credit one-week extension on a problem set during the term. No need to contact me or the TA, just write it on your problem set.

- Other extensions will only be granted for extraordinary reasons —documented health issues, family emergency, etc. You must consult me in person or by e-mail, *before* the homework is due. Some sort of proof of extenuating circumstances (e.g., note from the health center, counseling center, or Dean of Undergraduate Students) will be necessary. The one free extension in the previous bullet item is designed to satisfy other “reasons” such as “I had too much other work”, so don’t waste it and expect additional extensions for such reasons.

1.3 Collaboration Policy

In working the homework sets, you may consult your own class notes, and any textbooks required or recommended for this class or any other reference books you find helpful (but please state which you use, if you do use books which are not the text —if only so we can add them to the list of useful references for other students!). Use of calculators and mathematical software is allowed.

At no stage may you look at solutions to the assigned problems you might find on people’s desks, in books, on websites, filing cabinets, ftp sites, etc. This also means no googling for the problems in hopes of finding a solution online somewhere. You should also not consult on the problem sets with others who have taken Ph136b in a previous year. You may consult them about general concepts and approaches, but not about specific homework problems.

The reason for this is that if you don’t develop confidence and problem-solving ability, you won’t be learning physics (and as a byproduct, will likely have trouble on both the exams and your future career). In real research, no one else knows the answer to the problems you work on (otherwise why would you be doing them?), so the most important thing you can learn from homework is how to think and solve for yourself, and be confident in your answers.

In lieu of a midterm, *the last problem of each homework set will be marked ‘non-collaboration’*. You must do this problem entirely by yourself, without discussion or consultation with anyone.

The other problems of the homework set are subject to the following collaboration policies:

Collaboration on the rest of the homework is limited. You *must* first try the problems yourself. If you get stuck, or are unsure of your answer, you may seek help from the TA or the instructor (see website for office hours). You may also seek help from other students in the course, but your solution must be the result your own understanding of the material and must be written up independently (e.g. not copied from someone else’s solutions or from a jointly prepared solution). *If you do work with other students on a problem set, you must identify the names of those with whom you worked with on the submitted work.*

The final is *not* collaborative. You may consult your own notes (both in-class and any additional notes you take), the texts by Blandford and Thorne and by Tritton, and handouts and solution sets on this website. You may not use other textbooks, the web (except for the current Ph136b website), or any other resources. Calculators and software may *not* be used.

1.4 Grades

Your course grade will be a monotonic function of $g = [0.5 \times (\text{sum of collaborative homework scores}) / (\text{total possible}) + 0.2 \times (\text{sum of non-collaborative homework scores}) / (\text{total possible}) + 0.3 \times (\text{score on final exam}) / (\text{total possible})]$