

Physics 7A Spring 2020 Discussion Lab Syllabus

Instructor: Ian Lim (they/them or he/him)

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Section time: MW, 4:40-7:00pm (B03) or 7:10-9:30 pm (B04)

Office hours: Tuesdays, 3-4 PM via Zoom (Meeting ID 324 951 622)

Class structure:

The Physics 7 series is structured to encourage conceptual understanding of physics principles and critical thinking as opposed to memorization. As such, the discussion lab (DL) is an opportunity to explore and solve problems in a team setting. Most DLs will begin with a discussion of the FNTs (see below) from the previous session, and then proceed as follows:

- Small group activity and discussion in Zoom breakout rooms.
- Whole class discussion.
- Repeat.

Learning goals:

My learning goal for this class is for you to understand some of the models which guide how we think about the world through physics, and to gain more familiarity with the concepts and problem-solving strategies used by physicists. Understanding how to use physics principles to analyze systems, their relationships, and their dynamics will help you in any STEM field you may pursue. I hope this class will reinforce the idea that across a variety of disciplines, physics can be useful, interesting, and maybe even kind of fun.

Grading:

Your DL grade is based on attendance, participation, and completion of FNTs.

Attendance

I will be taking attendance for DLs, so be sure to use your full name when logging into Zoom. You can use a preferred name, but make sure to include your last/family name so I can match it to my roster.

Being on time is important. When you join the Zoom meeting, you will automatically be placed in a waiting room, and I will let everyone in from the waiting room when class begins. If you arrive more than 10 minutes late to class you will be considered tardy. Four tardies will count as one unexcused absence. If you arrive more than 20 minutes late to class, you will need to attend a different section and get a signed note from that instructor.

You may attend up to 4 DLs in other sections without penalty. To make up an absence from your regular section, both you and the TA for the section you attend must possess your respective pieces of the filled-out, signed, and dated DL make-up form. Otherwise your absence will be counted as unexcused. Make sure to alert the other TA before you show up to their section, or else they may not let you in from the Zoom waiting room.

Participation

Your attendance determines the highest DL grade I can assign you, but active participation in class is the main way to earn a high or mid pass. This includes asking (course-relevant) questions, answering questions (mine or your classmates'), and sharing results from small group discussions.

If you want to stand out, be proactive about volunteering in class and I'll take notice. Conversely, the easiest way to ensure I do *not* give you a high pass is to repeatedly ask me about your grade. Keep both these points in mind.

FNTs

For Next Times (FNTs) are the exercises assigned at the end of each class, due via Gradescope by the beginning of the next session. They are graded on completion, and I expect a sincere effort.

Groups:

In this class, you will work in groups of about 4 students to develop physical intuition and solve problems together. You will watch recorded demonstrations, manipulate equations, and briefly write up the results of your discussions on your digital whiteboards. I expect to switch groups once or twice over the course of the quarter. If you have an issue with a group member, please let me know privately right away.

Every member of a group should be prepared to explain their answers in the whole class discussions, and I may call on a particular group or on individuals to share what they've written. Don't stress too much about this part. The questions are designed to guide your thinking about what are often unfamiliar and sometimes counterintuitive topics, and I am more interested in whether you're thinking critically about the content than whether you've gotten the correct answer to a particular question. I'm here to help, and we're in this together.

Email:

As stated above, my email is itlim@ucdavis.edu. In your message, include 7A somewhere in the subject line so I can easily identify emails pertaining to this course. I will do my best to respond to you within 24 hours, but please note I may not respond to emails after 8pm or on weekends. If you know you will need a fast response, please plan accordingly.

Ground rules:

- This is an inclusive learning environment. Sexism, racism, homophobia, transphobia, and other forms of discriminatory speech or behavior have no place in the classroom.
- Please read through the Zoom etiquette document linked on the Home page for this course (also available here: <http://kb.ucdavis.edu/?id=5639>). You are expected to have a camera and to use it, so please be fully dressed for DL. This is an official University course, so you are expected to follow the Student Code of Conduct. Disruptive or inappropriate behavior will not be tolerated.
- Everyone in our class has the right to be addressed in accordance with their personal identity. I will gladly address you by the name and gender pronoun with which you identify. Please let me know your preferred name and pronouns early in the semester, so your peers and I can address you appropriately.