

Conceptual Physics Syllabus

Fall 2023 Online Class

The Course

An overview of physics. Content is taught at a conceptual level using basic math such as ratios, square roots, scientific notation, graph interpretation, slope and simple algebra. Topics include mechanics, properties of matter, heat, sound, electricity, magnetism, light, and nuclear physics.

Major Learning Outcomes

- A. Analyze issues that impact society by applying laws of nature from physics.
- B. Apply physics models and laws to predict the dynamics of physical systems at a conceptual level.
- C. Solve introductory-level physics problems with the application of basic mathematics.
- D. Communicate physics principles and phenomena in oral, graphical and/or written form.

Advised Preparation

- No hard prerequisites but MATH 40 is strongly recommended.
- Also, concurrent enrollment in the lab PHYC 10L is recommended.

This Course is Fully Online

- This course is fully online this semester and takes place within a course management system called Canvas. The best web browser to use with Canvas is Firefox.
- You will interact with me and the other students within Canvas. Your assignments and quizzes take place within Canvas. I will be making important course announcements within Canvas.
- **Important**– please adjust your Canvas settings so that you receive notifications to your student email address. This is so you do not miss important announcements.

Time Zone for due dates and times

I am assigning due dates and times from the Pacific Standard Time Zone.

Required Materials

- A conceptual physics book. The official book for this course is Conceptual Physics, 12th edition, by Paul Hewitt. If you can afford to buy it new or used, please do so. You are also welcome to get an older edition like the 11th edition, which is very similar to the 12th.
 - The various editions vary a little bit in the chapter locations of our course's topics.
 - Also, many of the diagrams and examples become more modern in later editions.
 - Renting a book may be a good idea, too!
 - Check the campus bookstore and online sources for options.
- Good internet connection and updated Mozilla Firefox browser.
- Calculator, paper, and pencils and pens.
- Ruler

The Class Runs on a Weekly Schedule

You will have a fresh set of tasks, assignments, quizzes, discussions, and topics and skills to learn every week. If a week is very short with holidays or days off, I will be sure to describe the different due dates for that week. I expect you to diligently work on this class 9 hours per week.

All Work for a Given Week is Due Sunday Night Before Midnight

But for typical four and five day weeks:

- **Sunday** night before midnight- your responses to discussion questions are due and your homework quizzes are due.
- I literally set the due times at 11:59 pm- that's what is meant by 'before midnight'.
- Please see Late Work Policies below for what happens if you miss these deadlines.

Multiple Assignments Every Week

Read the instructions very carefully in order to earn all of the available credit for your grade!!

- Reading Assignments
- Pre-recorded lecture videos. There are NO LIVE LECTURES
- Graded Homework quizzes, unlimited attempts before the hard due date
- Graded discussion posts and responses with your group
- Graded one-on-one check-in discussions between individual students and the instructor
- See Late Work Policies below

Midterm and Final Exams

- This class has exams in the traditional sense.
 - One midterm test (worth the same points as about two quizzes)
 - One final exam (worth the same as about four quizzes)
 - These are both multiple choice tests
- These are Learning Outcomes Assessments during the semester. I want you to do your best with the questions on these assessments.
- These assessments are designed to discover what you are naturally learning from the course and what skills you are developing.

Grades

- Your mid-semester and semester grades are determined by the thoroughness of your participation in all of the discussion assignments, your homework quiz scores, and your participation in the Learning Outcomes Assessments (AKA exams).
- Every week there will be something like 40 to 60 points available from all of these assignments. This maps to something like 3 to 5 assignments per week.
- Letter Grade Breakdown-

A	90-100%
B	80-90%
C	65-80%
D	40-65%
F	0-40%

Disabled Students Programs and Services

If you need course adaptations or accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible. My office location and hours are given at the top of the syllabus.

DSPS Counselors can be reached:

- By phone at 415-452-5481; leave a voicemail
- By email at dspsacom@ccsf.edu

Late Work and Drop Policies

Homework Quiz Due Dates and Late Policy

- Due for 100% possible credit (all 10 points) on Sunday night before midnight
- Every full day late is an extra 20% penalty
 - For example, if you turn in your quiz on Wednesday around 5pm, this is three days late, penalty is 60%, the highest grade you can earn on a 10 point quiz is 4 points.
- Answers to quizzes become available to everyone starting the following Friday at midnight.
- No exceptions

Discussions, Multiple Due Dates, and Late Policy

- Remember that there are TWO DUE DATES
 - You'll see assignments that remind you of the Wednesday night before midnight deadline. If you miss this deadline you do not get the assignment points. Your group mates are waiting for you- that's why.
 - Your final submission to a discussion assignment is due Sunday night before midnight. If you miss this deadline you do not get the assignment's points.
 - No late submissions allowed because the timing is important.
 - Do these assignments early if you think that you may not be able to finish them later in the week.

Drop Policy

- Very last day to drop is November 3 but this has financial and records implications. See CCSF calendar for other deadlines
- I will drop students who do not turn in assignments for two consecutive weeks
- It is ultimately YOUR responsibility to drop yourself to avoid fees and other implications

Office hours

I only hold virtual office hours with Zoom on Thursdays from 11-1. You can of course request to visit with me at other times and we can come to a mutual agreement on a case-by-case basis.

Instructions for meeting me on Zoom for office hours:

- In order to schedule a meeting during my Thursday Office Hours, write me a Canvas Inbox message during the 11-1 time block on Thursday.
- I will be monitoring my inbox carefully during this block and I will reply with a time and the Zoom link.
 - I will not have the Zoom session on while no one is visiting me. I will only activate the Zoom session for appointments.
- It will be helpful if you describe in your Inbox message what you want to talk about. Perhaps another student has a related question and I can try to meet both of you at the same time.