

De Anza College Physics 10 Syllabus

Winter 2025

Course Details:

Lectures: Tuesdays and Thursdays 5:30pm-7:45pm

Location: Online via Zoom

5 Units

Instructor: David Laubner

Email: laubnerdavid@fhda.edu

*This is the best way to reach me!

Office Hour: Mondays 4:00 pm - 4:50 pm or by appointment

Key Dates:

January 19th - Last Day to add 12-week classes

January 19th - Last Day to drop without a W

January 20th - Martin Luther King Jr. Holiday - no classes!

February 17th - Presidents Day - no classes!

February 28th - Last Day to drop with a W

Final Exam Date: Tuesday, March 25th from 6:15 pm - 8:15 pm, held online

Prerequisites:

MATH 109, 114, 130 or equivalent; or a qualifying score on the Intermediate Algebra Placement Test.

Text:

Conceptual Physics by Hewitt 12th edition. This is simply the version of the text that I will be using for reference. You are welcome to use a different version of the text, or an online version if you prefer.

Attendance:

Attendance is required for this course. If you miss more than three lectures, then you may be dropped from the course. Written communication is required to excuse an absence.

Course Description:

This course will explore the structure of physics from a purely conceptual standpoint. Although few mathematical techniques will be used throughout the course, verbal logic and reasoning will serve as the primary method of expressing the rationale of our universe. Although it may seem easier to study physics without mathematics, this can be demanding, and it requires careful and precise use of language.

We will start with mechanics and study motion, Newton's laws, energy, and momentum. Other topics that we will discuss include electricity and magnetism, the structure of an atom and the nature of matter, oscillations and wave motion, heat and sound. We may touch on some special topics such as relativity and quantum mechanics if time allows.

Homework:

Homework will be assigned each week on Tuesday, and due the following Wednesday at 11:59pm. There will be 10 total homework assignments, all worth ten points. Late assignments will be accepted, but reduced by 1 point for each late day, meaning after 10 days, the submitted assignment will not earn any credit. That being said, it is better to submit a complete assignment one day late than to submit half an assignment on time. If you need an extension for any reason, then please let me know in advance.

Quizzes:

Quizzes will take place every other week starting with week 2 except for week 6, when we will have our midterm. There will be four quizzes total. Quizzes will have 20 multiple choice and 5 short answer questions, for a total of 25 questions. If all quizzes are submitted, the lowest quiz score will be replaced by an average of all quiz scores. Quizzes will be taken asynchronously, and you will have a limited amount of time to complete them. Late quizzes will be accepted, but reduced by 5 points for each late day. Please complete the quizzes on time.

Discussions:

We observe physical phenomena in the world every day, even if we don't realize it. Every week, you will make an observation about something that you have noticed that is related to the topic of the week, and make a discussion post about it. The post should be about three to five sentences. You are welcome to respond to your classmates' posts, but this is not required.

Exams:

There will be one midterm and one final for the course. They will both be cumulative. The midterm will take place during week 6, and the final will take place during the date and time stated above. They will not be made up unless under extenuating circumstances.

Project:

There will be a project due during the last week of instruction. In addition to a brief presentation, a brief essay will be submitted. The details of this project will be given later on in the quarter.

Student Learning Outcome(s):

*Critically examine new, previously un-encountered problems, analyzing and evaluating their constituent parts, to construct and explain a logical solution utilizing, and based upon, the fundamental laws of physics in general.

Academic Integrity:

The work that you submit must be your own. Cheating will result in a score of 0 for the assignment or exam in question. Suspected use of generative AI such as Chat GPT will be addressed accordingly. Further action will be taken for subsequent incidents of cheating.

Accessibility:

It is my firm belief that physics is a subject that everyone should have equitable access to learn. If at any point you feel as though you need additional support, academic or otherwise, or something is hindering your learning, then please let me know. Accommodations will be made for those with the appropriate paperwork.

Grade Distribution:

Assignment	Percentage
Homework	30%
Quizzes	20%
Discussions	5%
Midterm	15%
Final	20%
Project	10%

Grade Scale:

Grades will be assigned according to the following chart.

A	90-100
B	78-90
C	65-78
D	50-65
F	Not given unless an exam is missed, or attendance is unacceptable.

Inclusive Language

To foster civility and model effective academic collegiality, we use inclusive language in this course. As formulated in guidelines drafted by the Linguistic Society of America, such language “acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities.”

I encourage you to share your preferred pronouns and terms of address, which we will use. In discourse and course materials, we will avoid gender-specific words when referring to people in general (people, for example, is preferred to mankind), and we will use gender-neutral pronouns unless gender needs to be specified. This includes they as a singular non-gendered pronoun, which is now widely considered standard usage.

Inclusive Teaching

As an educator who cares for all students and respects our college’s core values of anti-racism, diversity, equity, inclusion, and accessibility, I value the diverse backgrounds and perspectives you bring to our course. My goal is to build on your prior educational successes, activate prior learning, reduce opportunity gaps and achievement gaps, and foster educational growth. In order to achieve this goal, I plan to get to know each of you individually, allowing me to connect you with the resources that will best support your well-being and academic excellence. I have high expectations for you, and I want you to succeed. I value your input, and I appreciate your constructive suggestions about how to further improve our course so all students feel they belong here.

Rough outline of the course:

This is a rough look at what the course may look like over the course of the quarter. Please note that this is subject to change as the quarter continues.

Week of	Topics	Assignments	Tests
Jan 6-Jan 10	Mechanics	Hw 1, Disc 1	
Jan 13-Jan 17	Mechanics	Hw 2, Disc 2	Quiz 1
Jan 20-Jan 24	Mechanics	Hw 3, Disc 3	
Jan 27-Jan 31	Properties of Matter	Hw 4, Disc 4	Quiz 2
Feb 3-Feb 7	Properties of Matter	Hw 5, Disc 5	
Feb 10-Feb 14	Heat	Hw 6, Disc 6	Midterm
Feb 17-Feb 21	Heat/Sound	Hw 7, Disc 7	
Feb 24-Feb 28	Sound	Hw 8, Disc 8	Quiz 3
Mar 3-Mar 7	Electricity and Magnetism	Hw 9, Disc 9	
Mar 10-Mar 14	Electricity and Magnetism	Hw 10, Disc 10	Quiz 4
Mar 17-Mar 21	Review and Presentations	Extra Credit, Final Discussion	
Tuesday, Mar 25 th	6:15pm-8:15pm		Final Exam

Student Learning Outcome(s):

- Examine critically new, previously un-encountered problems, analyzing and evaluating their constituent parts, to construct and explain a logical solution utilizing, and based upon, the fundamental laws of physics in general.

Office Hours:

Zoom	M	4:00 PM	4:50 PM
Zoom	W	4:00 PM	4:50 PM