

De Anza College Physics 10 Syllabus

Spring 2024

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: Wednesday 5:30pm-6:20pm or by appointment

Key Dates:

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

April 20th - Last Day to drop without a W

May 27th - Memorial Day, no classes

May 31th - Last Day to drop with a W

June 19th - Juneteenth holiday, no classes!

Final Exam Date: Tuesday, June 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 Tuesday at 11:59pm. There will be 10 total homework assignments, all worth ten points. Late assignments will be accepted, but reduced by 2 points for each late day, down to a minimum of 2 points out of 10 for the assignment. It is better to submit a complete assignment one day late than to submit half an assignment on time.

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 multiple choice and short answer questions, and each will have 25 questions total. 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.

Exams:

There will be one midterm and one final for the course. They will both be cumulative, covering all of the material leading up to them. The midterm will take place during week 6, and the final will take place during the date and time stated above. You must take the midterm and the final in order to pass the class. 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 presentation, a brief project essay will be submitted. The details of this project will be given later on in the quarter.

Grade Distribution:

Assignment	Percentage
Homework	30%
Quizzes	25%
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.

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.

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
Apr 8-Apr 12	Mechanics	Hw 1	
Apr 15-Apr 19	Mechanics	Hw 2	Quiz 1
Apr 22-Apr 26	Mechanics	Hw 3	
Apr 29-May 3	Properties of Matter	Hw 4	Quiz 2
May 6-May 10	Properties of Matter	Hw 5	
May 13-May 17	Heat	Hw 6	Midterm
May 20-May 24	Heat/Sound	Hw 7	
May 28-May 31	Sound	Hw 8	Quiz 3
Jun 3-Jun 7	Electricity and Magnetism	Hw 9	
Jun 10-Jun 14	Electricity and Magnetism	Hw 10	Quiz 4
Jun 17-Jun 21	Review and Presentations	Extra Credit	
June 25 th	6:15pm-8:15pm	Tuesday	Final

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 W 5:30 PM 6:20 PM