

Physics 4B

Spring 2023

Instructor: David Newton

Office: S12a

Email: newtondavid@fhda.edu

Web Site URL: <http://nebula2.deanza.edu/~newton> (in addition to Canvas)

Office hours: Tuesday 12:30-1:20pm, Wednesday 2:30-3:20pm.

Final exam date: Tuesday, June 27th, 1:45 pm to 3:45 pm. Finals will not be given earlier or later.

Text: Physics for Scientists and Engineers: by Serway, edition... whatever you want.

Prerequisites: Passing Physics 4A and at least concurrent enrollment in Math 1C.

The goal of this course is to understand the four Maxwell equations of classical electro-dynamics in integral form and the "Lorentz force" equation and solve problems using them.

- It is the student's responsibility to drop the class if necessary. Otherwise, an F grade will be assigned.
- Grading mistakes, or protests for exams and quizzes will *only* be considered when a written cover letter is submitted to your instructor with the exam or quiz in question. Your appeal will be considered, and the resultant decision will be final. No protests will be considered orally, this includes simple addition errors.
- A grade of zero points will be assigned to any work done if a student has been found cheating.
- You must take the lab final and lecture final to pass the class.
- Lab attendance is required.
- Grades will be given on the percentages as shown below:

A: 92-100%;

A-: 90-91%

B+: 88-89%

B: 82-87%;

B-: 80-81%

C+: 78-79%

C: 60-77%;

D: 50-60%;

F: lower than 50%.

Overall class scores may be curved to fit this pattern.

The grade distribution is as follows:

Lab 10% (Attendance absolutely required.) Lab quizzes on Friday toward the end of the class period.

Quizzes 20%

Exams: two midterm exams, 20% each.

Final 30% (comprehensive, with seven exam-style questions.)

Lab Policy: Lab attendance is mandatory. You may miss *no* labs without a *written* physician's note or some other documented and serious reason. If you miss two labs even with a “justified” excuse or just one unexcused lab you will be liable for an instructor initiated drop from the entire course.

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 electricity and magnetism.
- Gain confidence in taking precise and accurate scientific measurements, with their uncertainties, and then with calculations from them, analyze their meaning as relative, in an experimental context, to the verification and support of physics theories.

Office Hours:

T 12:30 PM 01:20 PM In-Person S12B