PHYSICS 4B

Winter 2018
Instructor: Stephanie Dickson
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Office hours: Tuesdays 4:30 to 5:20 p. m. and Thursdays 1:30 to 2:20
Final exam date: Tuesday, March 27th, 6:15 - 8:15 p. m.
Text: Physics for Scientists and Engineers by Serway and Jewett, 9th edition

Prerequisites: Successful completion of Math 1B, Physics 4A and 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.

Please turn off cell phones or other electronic devices before class begins. No food or beverage is allowed in the classroom at any time, with the exception of water.

There will be at least one quiz every class meeting, excluding midterm and final exam days. The quizzes are based either on the assigned homework or on class discussion. No make ups are given for quizzes, but the lowest quiz score will be dropped. Your attendance is recorded along with your quiz score. If you come in late and miss the quiz, please turn in a paper with your name on it so that you are not dropped for non-attendance.

There will be two midterm exams, each weighted equally. No make-up exams will be given without ***PRIOR*** consent from the instructor. You may make up only one exam and that only for a serious and compelling reason. A conflict with another class's exam schedule is not sufficient. You will be given a three day grace period in which you may make up your exam.

Photo ID is required by all students at every exam.

Appeals for incorrect grading must be submitted in writing by attaching a cover letter explaining why the grading was incorrect to the exam or quiz. Any alteration of an exam or quiz will be treated as cheating and appropriate action will be taken. (See below.)

No questions are allowed on the day of an exam regarding exam material. This does not apply to quizzes, just exams and the final. Any other type of questions on exam day are, of course, fine.

To pass the class you *must* take the final exam (in both lab and lecture) and both midterms.

A student caught cheating on any quiz or exam will receive a score of zero on that quiz or exam. The second incident will be reported and the Foothill-De Anza Districts' disciplinary procedures will begin.

An "incomplete" will only be assigned as a final course grade when a *serious* illness or some other severe problem is encountered by the student.

It is the responsibility of the student, not the instructor, to ensure being dropped or withdrawn from the course. The drop deadline is FRIDAY, March 2nd. Students whose names still appear on the final class roster will all receive letter grades. Students who have stopped attending class but failed to formally withdraw will receive an F.

Homework solutions will be discussed in office hours and lecture. Some solutions will be posted on the web site AFTER the due date.

You will be graded on the *union* of the information provided in the lecture and from the assigned text readings. The grades will be given on the following percentages:

A: 92-100%
A-: 90 -91%
B+: 88 -89%
B: 82-87%
B-: 80 -81%
C+: 78-79%
C: 60 -77%
D: 50-59%
F: Lower than 50%

The grade distribution is as follows:
Lab 10%
Homework/Quizzes 10%
Exams (2 exams) 40%
Final (comprehensive) 40%

Lab Attendance: Lab attendance is **mandatory.** If you miss more than one un-excused lab, you may be liable for an instructor initiated drop from the entire course. You are dismissed from the lab for the day when you have the instructor's permission to leave. You may leave for a short time and then return, leaving the lab early without explicit permission from the instructor will constitute an absence.

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.