Physics 4B

Fall 2018
Instructor: David Newton
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Office Hours: Monday 11:30am -12:20 pm, Tuesday 10:30-11:20 am, Wednesday 10:30 -11:20, Thursday 2:30-3:20, Friday 11:30am – 12:20 pm, and by appointment.
Final exam date: Tuesday, December 11th, 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.
- If you miss more than five lectures you may find yourself dropped from the class.
- It is the student's responsibility to drop the class if necessary. Otherwise, an F grade will be assigned.
- NO make-up exams will be given without ***PRIOR*** consent from the instructor. Use the office phone number given above if you can't see me at school. If I'm not in my office, there is an answering machine at that number available for you to leave a message day or night (the phone may have to ring many times to answer). You must make arrangements to make-up the exam as soon as possible; if you wait too long (i.e., three days) to take your make-up exam, you will be scored a zero.
- No questions are allowed on the day of the 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.
- **No exam score will be thrown out.** The two midterm exams will count for the final grade with an average score calculated by using a "weighted" average where the high score will be doubled. No cheat sheets or note cards will be allowed during exams and quizzes. Exams will not require detailed memorization of many equations.
- Your lowest quiz score will be dropped. About six quizzes will be given throughout the quarter based on the assigned homework.
- 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.
- To pass the class you *must* take all exams and the lecture and lab final exam.
- A grade of zero points will be assigned to any work done if a student has been found cheating.

- 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 traditional percentages:

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%
Lecture Quizzes 10%
Exams (2 Exams) 40%
Final 40%

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.