

Physics 2B Syllabus Winter 2022

Instructor: Juming Jiao

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Lecture Hours: MTWR 1:30-2:20 pm

Lab Hours: TH 2:30-5:20 pm

Office Hours: Wednesday 2:30-3:20 pm

Final Exam Date: Tuesday, 3/22/2022, 1:45-3:45 pm

Text Book: FUNDAMENTALS OF PHYSICS, 9th Edition, by Halliday/Resnick/Walker

Prerequisites: Physics 2A.

OBJECTIVE: This course covers two parts: electricity and magnetism. An introduction to the physical properties of that fundamental quantity called charge. The study of electric and magnetic field, DC and AC circuits and their elementary applications. Concludes with electromagnetic waves. In the textbook from chapters 21 to 30.

ATTENDANCE: You are expected to be here at the beginning of each class. If you miss more than three lectures, you may be dropped from the class. However, it is your responsibility to ensure being dropped or withdrawn from the course in order to avoid an F in the course. The last day to drop a class with a W is Friday, February 25.

HOMEWORK: Homework will be assigned for each chapter, but it will not be collected. It is your responsibility to complete it by the expected date. It is essential to your success in this course that you put solid effort into the homework. If you are having difficulties with homework, I am available for help during my office hours.

QUIZZES: There will be 6 quizzes from Chapters 22-30. The quiz with the lowest grade will be dropped. Each quiz consists of one problem from lectures or homework. Therefore, it is to your advantage to attend each lecture and complete homework assignments.

EXAMS: There will be one mid-term exam and one comprehensive final; all exams are closed book tests! To pass the class, you must take all the exams. There are no make-up exams without prior consent from the instructor. You can send an email before the exam time in case of an emergency. Students who fail to show up for the final exam will receive a grade of F for the course.

ACADEMIC HONESTY: If a student is found cheating, a ZERO will be assigned to the work. Using unauthorized notes, copying another students work, or letting another student copy your work are all considered forms of cheating. If you are caught cheating on a quiz or exam, you will receive a zero as your final grade on that quiz or exam. If you are caught cheating a second time, you may receive an F in the course.

LABORATORY: Lab attendance is mandatory. A student with two unexcused absences of lab may be dropped from the class. The 11th week will be the lab final.

You will need a lab notebook and a scientific calculator.

Lab grade consists of 50% lab report and 50% lab final.

GRADING: The grade distribution is as follows:

Homework/Quizzes 30%

Lab 20%

Mid-Term 20%

Final 30%

Grades will be determined as follows:

A: 89-100%

B: 75-88%

C: 60-74%

D: 50-59%

F: 0-49%

Overall class scores may be curved to fit this pattern.

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.

*In order to test lab skills students are expected to 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.