

UNIVERSITY OF HAWAII AT MANOA

PHYS 170, General Physics I, Fall 2021

Instructor:

Prof. S. Wang Yoon, swyoon@hawaii.edu

Office: MSB M9

Office Hours: Online by appointments and Q&A after the Zoom lectures.

Course Description:

Calculus-based introductory general physics for future scientists and engineers. Basics of mechanics, fluids, oscillations, wave motions and sound will be covered.

Textbook:

University Physics, by Young and Freedman, 15th Ed., Chapters 1-16.

Pearson Student Access through Laulima

Course ID through Laulima

The “ebook with Mastering Physics” will be used.

Lectures, Time:

Synchronous Zoom online lectures, MTW 09:30-10:20a,

Recitations, F 09:30-10:20a / F 10:30-11:20a.

The Zoom code will be supplied for the class by email to the students.

The Q&A session will be held after the Zoom lecture for students.

The lecture slides for each week will be posted in Google drive.

The lecture will generally cover one chapter per week.

Recitations:

Detailed instructions will be provided by the recitation TA. They are based on the problem-solving method and more likely “advanced or applied problem solving” sessions.

Learning outcomes:

Understanding and applying basic principles of physics to better understand the world around us. At the end of this course, students should be able to:

- understand and discuss basic topics in Physics
- solve problems by making appropriate approximations and applying physical principles and equations
- utilize the understanding to recognize physical processes happening in natural phenomena, in technology and in everyday life.

Homework:

Homework assignments will be given during the class, and the solutions will be posted one week later. You do not need to turn in the homework but compare yours with the posted solutions. “Preview; reading lecture materials before the class” and “Review; solving the examples after the class” in the textbook are strongly suggested as further homework.

Class Folder:

Syllabus, schedule, homework and recitation practice examples are posted in the google drive folder named '2021Phys170Fall_Yoon' for which you received access.

Tests: One-hour

Three 'one-hour midterm' tests will be given. The tests begin at 09:30 am and your answer sheets should be submitted by 10:30 am. Your 'Name and Class ID' should be written at the top on each submitted sheet.

Test Dates:

T1 (Mon Sep 20), T2 (Mon Oct 11), T3 (Mon Nov 8), Online synchronous.

Final Exam: Two-hour

Fri Dec 17, 09:45-11:45 am, Online synchronous.

Test Taking: Students will be required to have hand-written solutions to the test problems and then use a phone or other device to scan the test answer sheets, and upload a pdf file of their solutions, before the test time is over. Your 'Name and Class ID' should be written at the top on each submitted sheet. It is your responsibility to ensure that you can scan and upload your answer sheets in a timely manner. Any test answer sheets handed in after the due time will not be accepted.

It is your responsibility to ensure that you can create a pdf file of your test answered solutions. If you have problems creating a pdf file, you must solve those problems before the test. Whatever method you choose to use for creating a pdf of your solutions, you must be ready to reliably use it on test day.

It is strongly recommended that you practice the scanning of solutions on your tests. Late tests will not be accepted, so you must be able to scan and upload your solutions in a timely manner. In addition, it is your responsibility to ensure that your solutions can be read, followed, and understood for grading. Be sure that you write in a legible manner, and use a pen or pencil that is easily readable when your answer sheets are scanned.

Grading:

Tests: 60%

Final Exam: 30%

Recitations: 10%

Grade Scale: A (85-100%), B (70-85%), C (55-70%), D (40-55%), F (<40%)

This may be subject to change based on the overall performance of the class.

Class I.D.: Every student will have a class identification number assigned for the class.

Last day of class: Wed Dec 8, 2021.

The syllabus may be changed by the instructor at any time. It will be announced in the class.