

UNIVERSITY OF HAWAII AT MANOA

**PHYS 170, General Physics I, Spring 2021**

- Instructor:* Prof. Klaus Sattler, [sattler@hawaii.edu](mailto:sattler@hawaii.edu)  
Office: Wat 306  
Office Hours: online, by appointment. Also, there is time for questions after the Zoom lectures.
- Course Description:* This course is a calculus-based introduction to physics for future scientists and engineers. It covers the basics of mechanics, fluids, oscillations and wave motion.
- Learning outcomes:* The overall learning outcome of this course is for students to understand basic principles of physics and be able to recognize and apply these principles to better understand the world around them. 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
  - Use the understanding and ability to problem solving to recognize physical processes happening in natural phenomena, in technology, and in everyday life.
- Location, Time:* Synchronous Zoom online, 11:30-12:20 MWF, and recitations at various days and times. The ZOOM code is submitted by email to the students in the class. The online lectures will be recorded and posted in the class folder (S21-170 Shared Folder), for you to watch later. There is a time period at the beginning and the end of the zoom lecture for students to ask questions. The lecture slides for each week will be posted in google drive S21-170 Shared Folder. We will cover one chapter per week; which means chapter 1 in week 1, chapter 2 in week 2, etc (according to the chapters in the textbook). You will receive detailed instructions for the recitations from the recitation TAs.
- Textbook:* University Physics, by Young and Freedman, 15<sup>th</sup> edition, Chapters 1-16.  
*Pearson Student Access Code:* DSCKUN-DRAFF-SPIRY-CURET-MAINT-RISES  
*Course ID:* sattler91156  
We only use the ebook, not Mastering Physics.
- Homework:* Homework assignments will be given Monday morning, and the solutions will be posted one week later. You don't turn in the homework but compare your solutions with the given results. You will also be given weekly practice examples which you bring to the recitations, and you will get credit for it. Also, reading in the textbook and going through the textbook examples is expected as further homework.
- Class Folder:* Syllabus, schedule, homework and recitation practice examples are posted in the google drive folder named 'S21-170 Shared Folder', for which you received access.
- Tests:* Three midterm tests will be given. The tests begin at 11:30, and solutions need to be submitted by 12:30. Open book. It is recommended that you prepare your own equations sheet.
- Final Exam:* Test Dates: T1 (Mo Feb 8), T2 (Mo Mar 8), T3 (Mo Apr 12), online synchronous Friday May 14, 12:00-2:00 pm, 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 and upload a pdf file of their solutions, before the test time is over. It is your responsibility to ensure that

you can scan and upload your solutions in a timely manner. Any test handed in after the due time (the end of the 1 hour test period) will not be accepted.

These are basic instructions for scanning pages and creating a pdf to upload on apple and android phones:

iphone: <https://support.apple.com/en-us/HT210336>

android: <https://support.google.com/drive/answer/3145835?co=GENIE.Platform%3DAndroid&hl=en>

It is your responsibility to ensure that you can create a pdf file of your test 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 solutions are scanned.

It is highly recommended that you create a note sheet of information that you expect to be useful for the test. The time constraint will mean that there is very limited time to look up information in your book. Your homework problems will be very similar to the test problems, so be certain that you can solve problems of this type. Also important: Every physical quantity needs to have a unit, in all steps of the solution.

*Exam Arrangements:* We will have special arrangements for students who are UH athletes, are ill, or have other time constraints.

*Grading:*

Tests	:	60%
Final Exam (Chapters 13-16):		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 is given a class identification number.

*Last day of class:* Wednesday May 5, 2021

The Syllabus may be changed by the professor at any time (will be announced in class).