

UHC Phys 0475
Introduction to Physics, Science and Engineering 1
Fall 2014

Course Information:

Location MWF: 104 Thaw Hall, TH: 102 Thaw Hall

Class times Mon, Tue, Wed, Thu, Fri 11:00 – 11:50

Text Fundamentals of Physics by Halliday, Resnick and Walker, extended 9th Edition

Professor James V. Maher

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Office 602A CL

Office hours: 10-10:50am Tuesday and Wednesday (except there will be no office hours on September 16), or by appointment. The Tuesday and Wednesday office hours will be held on the fourth floor of Old Engineering Hall, some weeks in Room 408 and other weeks in Room 402 (whichever room is not used that week for the teaching lab course).

Course Description and Objectives: This course is the first half of a two-semester honors-level introductory physics course. The major goal of this physics course is to enable you to develop logical reasoning skills so as to be able to solve diverse problems starting from the basic physical principles we will discuss. In particular, you will learn to understand and apply the laws governing the description of motion, forces, energy, momentum, rotation, angular momentum, elasticity, gravitation, oscillations, waves, heat and thermodynamics.

Course Prerequisites: Mathematics is the language of physics, and thus is important to any physics class. Calculus I is a prerequisite, and Calculus II should be taken simultaneously with this course.

Text: The textbook for this course is *the extended ninth edition of Fundamentals of Physics by Halliday, Resnick and Walker*. While this text is also used in Physics 0174, we will use aspects of the text not usually used in Physics 0174 and we will also supplement the text with other material on occasion.

CourseWeb: A CourseWeb site for this course has been created and from there you may view announcements, send email to the instructor/TAs and download course material (such as the syllabus, supplementary material, exam announcements and exam solutions). To access the CourseWeb site, go to <http://courseweb.pitt.edu> and login using your Pitt email username and password.

Class Participation: I encourage you to participate fully in class discussions. In my experience, most questions asked during class are questions that many students would like to hear answered, and I welcome the opportunity to answer such questions.

Homework: To truly understand physics, you need to be able to take first principles and

apply them to new situations. Thus, problem-solving skills are important to learning and understanding physics. Therefore homework is a crucially important part of the course.

Exams: There will be **three** mid-term exams (in lecture) and a 1 hour 50 min cumulative final examination. The exams are expected to fall on:

- Exam 1: Wednesday, September 24.
- Exam 2: Wednesday, October 29.
- Exam 3: Wednesday, December 3.
- Final Exam: To be announced later.

There will **NOT** be in-class quizzes. There will not be make-up exams for students who miss an exam---instead, I will drop the lowest grade of the three mid-term exams for anyone who takes all three exams. If by any chance, a student who has taken all three mid-term exams does worse on the final than on any of the three mid-term exams, I will only count the final for half as much credit as in the weighting below and will use all three mid-term grades.

Course Grades: Your grade in the course will be based on homework and exams. The grades will be weighted according to the table below:

Homework 20%

Midterm Exams 20% each (see previous paragraph)

Final Exam 40%

Recitations: The recitation sections are mandatory and there will be little difference between the “lectures” and “recitations” during the week. Each week the TA will cover one class, but the day may change from week to week.

Office Hours: I am available by appointment and I have set aside Tuesday and Wednesday from 10:00-10:50 before class for office hours. As noted above, there will not be an office hour on September 16. The Tuesday and Wednesday scheduled office hours will be held on the fourth floor of Old Engineering Hall in whichever teaching laboratory room is available that day (it will always be either Room 408 or Room 402).

Academic Integrity: “Students in this course will be expected to comply with the University of Pittsburgh's Policy on Academic Integrity. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries, telephones and programmable calculators.”

Disabilities: If you have a disability that requires special testing accommodations or other classroom modifications, you need to notify both the instructor and the Disability Resources and Services no later than the 2nd week of the term. You may be asked to provide documentation of your disability to determine the appropriateness of accommodations. To notify Disability Resources and Services, call 648-7890 (Voice or TTD) to schedule an appointment. The Office is located in 216 William Pitt Union.