

Physics 1321: University Physics I

Section: 11483 (lecture), 11511 (recitation)

Meeting Time: TTh 1:00-2:15 pm (Lecture), T 2:30-3:30 (Recitation)

Instructor: Dr. Victor Andersen

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Office Hours: MW 1-2 pm, Th 2:30-3:30 pm

Catalog Description: Cr. 3. Primarily for science and engineering majors. Prerequisite: credit for or concurrent enrollment in MATH 1432. Credit may not be applied toward a degree for PHYS 1321 and either PHYS 1311, PHYS 2411 or PHYS 1301. Mechanics of one- and two-dimensional motion, dynamics, energy, momentum, rotational dynamics and kinematics, statics, oscillations, and waves.

Course Corequisites: Math 1432 (Calculus II)

Text: *Physics for Scientists and Engineers, 3rd Edition*, By Fishbane, Gasiorowicz, & Thornton. ISBN: 0-13-142094-1

Course Content: This course will cover topics in one- and two-dimensional motion, dynamics, energy, momentum, rotational dynamics and kinematics, statics, oscillations, waves, and fluids.

Course Objectives: Upon completion of this course, students will be able to solve elementary physics problems concerning:

1. Kinematics and Dynamics.
2. Statics.
3. Oscillations and Waves.
4. Fluids.

How to Succeed in this Course

1. **Read ahead in the textbook.** You will be encountering many new and difficult ideas in this course. Most people need several exposures to these ideas before they will actually stick, so begin to familiarize yourself with the material to come before you get to class.

2. **Come to class regularly.** For the reasons I've already said. In addition, you can *ask questions* in class.
3. **Study and work physics problems every day.** For exactly the same reasons in 1 and 2.
4. **Spend more time on the beginnings of the problems than the middles and ends.** Much of the working out of physics problems is mathematics. Setting up the problem to be worked is where the majority of the physics in the problems occurs. Many people who have trouble in physics courses have difficulty setting up the problems, not working the problems through when they have been set up. Don't believe anyone who says "I understood the physics, I just couldn't work the problems!" Having trouble working problems is almost always due to not understanding the basic physics well enough to set up the problems.

Grading: Your final grade in the course will be determined based on three sources; 5% from diagnostic exams and quizzes, 15% from homework, 80% from the best three of four exams (including the the final exam).

Grading Notes

- Over the first 1-2 months of the course, you will be given a number of diagnostic exams and quizzes, in order to allow you to assess how well you are learning the material. The first diagnostic exam will be administered through CASA (see separate handout for details) and **is mandatory**. *Students who score less than 50% on this exam may, at the instructors discretion, be dropped from the course.*
- The portion of your grade from the in class exams will be determined using the best 3 scores from the 4 exams. If you miss an exam, the missed exam will be the exam dropped; no makeup exams will be given.
- Weekly homework will be assigned and a randomly selected subset will be graded. The number of problems assigned will be the bare *minimum* number of problems that you should work in order to learn the material; most successful students will work many additional problems in order to become proficient.

- **No late homework will be accepted!** Homework is due at the end of class on Tuesdays. In order to not penalize students who are unable to turn in an assignment due to circumstances beyond their control, the assignment with the lowest homework score will be dropped.
- Each assigned homework problem will be graded on a 5 point scale: 2 points for a proper setup of the problem, 2 points for a correct working of the problem (small mathematical or arithmetical errors will not detract from this part of the score), and finally, 1 point for a correct answer, with correct units (where applicable.) The points for working the problem are only available if you get full credit for the problem setup; the points for a correct answer are only available if you get full credit for working the problem.
- Neither I nor the paper grader will attempt to grade a homework question that is illegible or presented in a manner that is difficult to follow, we will simply give such a question a zero. Take pride in your work and make sure that your homework assignments are neat and legible.
- The final exam will be given during the university scheduled final exam period. I do not schedule early times to take the final exam. I do not give late final exams for students who do not wake up in time for the final or who weren't sure when the day and the time of the final was. All students are expected to take the final exam during the scheduled final exam period.

Grading Scale

A	85 and up
B+	83-84
B	75-82
B-	73-74
C+	71-72
C	58-70
C-	56-57
D	50-55
F	49 and below

Incomplete Policy: as per the policy stated in the catalog:

“The temporary grade of I (incomplete) is a conditional and temporary grade given when students (a) are currently passing a course or (b) still have a reasonable chance of passing in the judgment of the instructor, but for non-academic reasons beyond their control have not completed a relatively small part of all requirements.

Students are responsible for informing the instructor immediately of the reasons for not submitting an assignment on time or not taking an examination. Students should understand that the only way to have an I changed to a passing grade is to fulfill course requirements in accordance with the conditions specified by the instructor. Students must contact the instructor of the course in which they receive an I grade to make arrangements to complete the course requirements. Students must not re-register for the courses in which their grade is currently recorded as an I. Even when the conditions for fulfilling the course requirements include participation in all or part of the same course in another semester, the student must not re-register for the course. After the course work is completed, the instructor will submit a change of grade form to change the I grade to the grade earned. Both grades, the original I and the earned grade, will appear on the transcript

The grade of I may not be changed to a grade of W, but may be changed only to another letter grade. As stated under Fulfillment of Grade Requirements for a Degree, all grades of I shall be computed as grades of F for purposes of calculating a student’s cumulative grade point average for graduation.

Should the student not complete the course in the time allotted (a maximum of one year), a grade of F will be assigned and used for purposes of calculating a student’s cumulative grade point average for graduation and also for determining eligibility for graduation with honors (i.e., an I grade that becomes an F, even if associated with a course taken during the freshman or sophomore year, will be counted as part of the student’s last sixty-six hours).”

Addendum: Whenever possible, and in accordance with 504/ADA guidelines, the University of Houston will attempt to provide reasonable academic accommodations to students who request and require them. Please call 713-743-5400 for more assistance.