Instructors

Dr. Jim Clarage, Robertson Hall, room 109
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Dr. Louis McLane, Robertson Hall, room 108
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Emailing your professor (etiquette)

Put the course name in the Subject line of your emails, e.g., “Univ Phys I”
Dr. Clarage does not read email after 8pm, and not at all on Sundays.

Clarage Office hours

M/W/F 11:00 am - 12:30 pm
Tues/Thurs: 3:00 pm - 4:00 pm
Other times by appointment.

McLane Office hours

Tues 10-11 am.

Text


Note: bring your textbook and calculator to class.

Course Description

Calculus-based course in physics. Particle kinematics and dynamics, conservation of energy and momentum, rotational motion, waves, fluid mechanics, and thermal physics. Prerequisite: MATH 1431. Corequisite: PHYS 2111.

Learning Objectives and Outcomes (called Course Objectives in old days)

Students will understand the topics in the course description. This should include both conceptual understanding and problem solving with calculus, vectors, and computer tools. More specifically the student will

- Learn fundamental principles, generalizations, or theories
- Learn to apply course materials (to improve rational thinking, problem solving, and decisions)
- Develop specific skills, competencies, and points of view needed by professionals in the field (e.g., natural science and engineering)
- Learn to analyze and critically evaluate ideas, arguments, and points of view
- Acquire an interest in learning more by asking questions and seeking answers

Prerequisite

Prerequisite: MATH 1431. Corequisite: PHYS 2111. You should also own and operate a scientific or engineering calculator. Mathematics is the language of physics, and this language is often typed out on calculators and computers.
Blackboard

Blackboard (http://gregory.stthom.edu) will be used to post grades, assignments, announcements, and occasional quizzes. So you need access to the internet during the semester. All tech questions/problems (e.g., your account, password, browser problems, etc.) should go to the university Help Desk, Robertson B112, (713) 525-6900

Grading

Your final semester grade will be computed from:

50% semester exams (two in-class exams)
25% final exam (comprehensive)
15% homework
10% quizzes (attendance, participation)

Each homework assignment is typically graded out of 10 points, each quiz 10 points. The exams are graded up to 100 points.

The letter grade for the course is based up these course percentages:
A (94-100), A- (90-93), B+ (87-89), B (84-86), B- (80-83), C+ (77-79), C (74-76), C- (70-73), D+ (67-69), D (60-66), F (0-59)

Problem solving (Homework and Quizzes)

"Students often tell me, 'I understand the concepts; I just can't do the problems. They are fooling themselves. The only sure test of whether you understand the concepts is precisely your ability to work the problems."

- Griffiths, D.J. (author of several physics textbooks)

Don’t let above quote discourage you-- solving problems takes lots of practice.

"Confusion is the sweat of learning."

- Rhett Allain (author of a good physics blog)

Attendance

“The University expects all students to be regular and punctual in class attendance. Frequent unexplained absences may result in a student being administratively withdrawn from the course or in a grade reduction or failing grade, at the discretion of the faculty member” (Page 67 Undergraduate Catalog 2007-2009). Each unexcused absence from class, including absence at the start of the lecture, may result in a one-point decrease in the final semester numerical grade, or in dropping one homework or quiz score. Conversely, 10% of your total grade is based upon your class attendance and participation. Attendance and participation are recorded with either the attendance sheet or iClicker questions.

Exam Policy

Students are expected to be present for each of the exams as scheduled. Make-ups are only allowed in serious circumstances. If for some reason you must miss an exam you are required to: i) let the instructor know BEFORE the regularly scheduled exam time that you will not be able to make the exam; ii) be prepared to document (with receipts, paperwork, etc.) why you missed the exam. Use the email and/or phone information above to contact the instructor.

Accessibility and Accommodations

If you have a documented disability that will impact your work in this class, please contact Counseling and Disability Services Office in Crooker Center. This office can be reached at (713) 525-6953 or 2169.
Academic Honesty

All students are subject to the university’s Policy on Academic Dishonesty and the UST Student Handbook. This extends to any quizzes taken online via Blackboard.

Advice

› Come to class
› Read, as best you can, textbook chapters before coming to class.
› Do all assigned homework problems
  (and then some... physics is solving problems, not memorizing facts).
› Find something good, true or beautiful in the subject.

Class Schedule - attached in separate document, including information on Homework and Quizzes.

The instructor reserves the right to make reasonable changes to the syllabus during the course. In this event any necessary changes will be posted online and announced during class.