PHYSICS 303: PHYSICAL THEORY FALL SEMESTER, 2012

Lecture:Tuesday and Thursday, 2:30 p.m., Room 211 Lewis HallProfessor:Dr. Thomas MarshallOffice:Room 126 Lewis, 232-5325, e-mail: marshall@olemiss.edu

Office Hours: MWF, 8:00-8:45 a.m. in my office (Lewis 126).

Text: Fundamentals of Physics, 9th ed., by Halliday, Resnick, and Walker READ THE BOOK!!

Goals: This course is intended for physics majors that took trigonometry-based, introductory physics (Phys 213-214 at UM) instead of a calculus-based course (Phys 211-212 at UM). One goal of this course is to learn important physics concepts that depend heavily on calculus and are therefore usually skipped in trig-based courses. Since physics concepts are often best expressed in the language of calculus, another goal is to learn how to formulate basic physics concepts in terms of calculus. A related goal is to learn to use calculus with other math techniques to solve physics problems, both with the new concepts and also with concepts covered in the trig-based course. As in most physics classes, critical thinking, analytical reasoning, and problem solving skills will be emphasized. These abilities are crucial in physics (and can be carried over into many other fields or endeavors).

Grading Scale: A's: 90-100%, B's: 80-89%, C's: 70-79%, etc. The +/- grading scale will be used.

Grades will be based on homework, tests, and the final exam:

Homework	25 %
Two tests	25 % each
Final exam	<u>25 %</u>
	100 %

If you must miss a test or the final exam because of a civil duty (e.g., jury duty or military service), official University competitions, performances, or travel, religious observations, or certain scheduled medical procedures, please inform Dr. Marshall ahead of time to arrange an accommodation. Missing a test or the final exam without prior notification of Dr. Marshall may lead to receiving a zero on the test/exam. However, illnesses and other problems, which sometimes occur unexpectedly, may lead to an accommodation in this policy.

Homework is assigned almost every class period and is due at the beginning of the next class period. Homework assignments turned in at or before the second class meeting after the original due date, will be graded with a 25% late penalty assessed. Homework assignments turned even later will receive a zero. This policy may be adjusted for extended excused absences (e.g., due to an extended illness).

Homework is one way of practicing and applying your knowledge physics. You won't learn much physics if you don't practice using it.

Homework Rules:

- 1. Homework is due at the **<u>beginning</u>** of class on the due date.
- 2. Homework paper should be 8.5 x 11 inches with <u>no torn</u> or <u>tattered</u> <u>edges</u>. Homework papers should be <u>stapled</u>.
- 3. Show all your work; the answer alone is not worth anything. Homework problems must include enough **English** to be understandable.
- 4. Homework answers should have <u>units</u> and a reasonable number of significant digits.

Class attendance is not required, but is strongly encouraged, since everything you need to know in the class will be discussed in class. Arriving late to class or leaving early distracts everyone (me especially). Both are rude, so please avoid them. If you are taken ill during class, please feel free to leave.

It is University policy to provide, on a flexible and individual basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or meet course requirements. Students with disabilities, which have been verified through the <u>Office of Student Disability Services</u>, need to contact me at the beginning of the semester to discuss their individual needs for accommodations.