Physics 103, Essentials of Physics
Spring 2007
Schedule: MWF 12:00-12:50 PM
Instructor: Professor Stephen Hsu, 475 Willamette, hsu@uoregon.edu
Office hours: WF 1-2 PM, or by appointment.
Teaching Assistant: TBA
Webpage: http://duende.uoregon.edu/~hsu/103/
Textbook: Conceptual Physics, P. Hewitt (10th edition)

Course Philosophy:
The purpose of this course is to promote a deeper understanding of conceptual physics, and science and nature in general. We will always emphasize physical ideas rather than mathematics, although a basic level of mathematics and quantitative thinking will be required.

It is important to remember that learning is an interactive process and requires effort on the part of the student. New concepts are only absorbed after concentrated thought and consideration. DO NOT BE AFRAID to ask questions in class! My main purpose as the instructor is to help you learn. My role as someone who assigns you a grade or judges your performance relative to others is secondary and less important.

In this, the third term of the course, we will be discussing modern physics: the properties of light, atoms, quantum mechanics, special and general relativity.

Homework:
Your homework consists of three parts.

A) Reading. Please read the chapter material BEFORE you come to class. Make notes on the things you find confusing, and feel free to ask me about them during class.

B) Problems: These will also be assigned for each chapter. They are due EVERY FRIDAY during the term, starting at the end of the SECOND WEEK. I will drop the LOWEST problem set score when computing your final grade.

C) Review your graded problems and try to understand any mistakes you made.

Please put your problem sets in the TA's box in 261 Willamette. DO NOT DELIVER THEM TO ME OR TO MY OFFICE.

Quizzes:
We will have quizzes on three of the Fridays during the term (see the syllabus for the dates). These will consist of a short problem or problems taken from recent material.

DO NOT ASK FOR A MAKEUP QUIZ UNLESS YOU HAVE A MEDICAL EMERGENCY OR PRIOR APPROVAL FROM ME. I MEAN IT. I'M NOT KIDDING.

Final Exam:
There will be a final exam. I will post the date and time here as we near the end of the term.

Grades: Your grade will be determined as follows:
Homework problems: 40 percent (drop lowest HW score)
Quizzes: 20
Final: 30

Class participation: 10 (this will be based on your participation in class discussion, attendance, etc.)

Syllabus (10 weeks)

WEEK:

1 (April 2, 4, 6) Read: Ch 26, 27, 28; Review concepts from Ph102; Problems: Ch 27 Review Questions 3, 4, 12, 23; Ch 28 Exercises 3, 14, 55; No Quiz

2 (April 9, 11, 12) Read: Ch 26, 27, 28 (continuation from week 1); Problems: Ch 27 Review Questions 3, 4, 12, 23; Ch 28 Exercises 3, 14, 55 (continuation from week 1); No Quiz

3 (April 16, 18, 20) Read: Ch 29; Problems: Ch 29; QUIZ ON FRIDAY!!

4 (April 23, 25, 27) Read: Ch 30; Problems: Ch 30; No quiz

5 (April 30; May 2, 4) Read: Ch 31; Problems: Ch 31; No Quiz

6 (May 7, 9, 11) Read: Ch 32; Problems: Ch 32; QUIZ ON FRIDAY!!

7 (May 14, 16, 18) Read: Ch 33; Problems: Ch 33; No quiz.

8 (May 21, 23, 25) Read: Ch 34; Problems: No quiz.

9 (May 28, 30; June 1) Read: Ch 35; Problems: Ch 35; QUIZ ON FRIDAY!!

10 (June 4, 6, 8) Read: Ch 36; Problems: Ch 36; No quiz