## PHY302L General Physics II, Spring 2003

Unique Number: 57150

Class - Meets TTh 3:30-5 in PAI 4.42

Instructor - Professor Greg O. Sitz

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office hours: Wednesday 10:30-11:30, Tuesday 5-6, or by appointment.

#### Teaching Assistant - TBA

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**Text** - *Physics* Fifth Edition, Volume 2, by *Giancoli*. The material covered and the order in which it will be covered are shown on the next page.

**Grading** - The breakdown is: Regular Classwork 34%, In-class exams (best 2 of 3): 33%, Final Exam 33%.

# Regular Classwork - 34% of grade -

- Homework will be posted on the Web based Homework Service by Friday each week, and will be due at the time indicated on the Homework Service (typically 9 days later). All students are required to use the Service to submit homework solutions. Occasionally, Homework Service assignments will be augmented by written assignments which will be hand graded. Altogether, the homework will account for 34% of your total grade. You are encouraged to discuss homework with anyone you wish; however, all homework submissions must be prepared independently (by you). Success in introductory physics courses is strongly correlated with completion of high quality homework sets. Give them high priority and allocate adequate time.
- Concept quizzes will be short, 1 or 2 question quizzes given intermittently during most classes. These are intended to keep you involved in the lectures and to help you evaluate how well you are following the basic concepts being covered. The CQ's will not be graded, but will be used to evaluate attendance. If you complete 85+% of the CQ's preceding each in-class exam, you will receive a bonus of 5% on your score for that exam. If you complete 85+% of the CQ's for the entire semester, you will receive a bonus of 5% on your score for the final exam.

**Exams - 33%** - Two in-class exams will be given: tentative dates are February 20 and April 3. A third, out-of-class exam will be given on Thursday evening, May 1: this third exam is recommended for all students and required for any student who missed one of the first two in class tests. Together these tests count for 1/3 of your grade (best two scores out of three).

The exams will be closed book and closed notes. A cover sheet with relevant formulas and constants will be provided. This cover sheet will be available in advance of the exams.

If you are absent from a examination for the observance of a religious holy day you may complete the work missed within a reasonable time after the absence, if proper notice has been given. Notice must be given at least seven days prior to the exam. Final Exam - 33% The final is scheduled for Thursday May 8, 9-noon. It will be comprehensive and it is required.

Other: The last date to drop the course without possible academic penalty is February 10, 2003. The last day to drop the course for academic reasons is March 24, 2003.

Please notify me of any modification/adaptation you may require to accommodate a disability-related need. You will be requested to provide documentation to the Dean of Students' Office, in order that the most appropriate accommodations can be determined. Specialized services are available on campus through Services for Students with Disabilities.

**Laboratory:** PHY102N is a distinct class, with a separate grade, however it is a co-requisite for this course.

**Alternatives:** This document (as well as other course related material) is (will be) available at:

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http://www.ph.utexas.edu/~gositz/phy3021.html
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The Homework Service homepage is at (instructions are available at this site):

http://www.hw.utexas.edu

The page for adding yourself to the homework roster is:

http://www.hw.utexas.edu/roster.html

## Syllabus

Week of January 13: Ch. 16, Electric Charge and Electric Field

January 20: Ch. 16 continued

January 27: Ch. 17 Electric Potential, Energy, Capacitance

February 3: Ch. 18 Electric Currents

February 10: Ch. 19 DC Circuits

February 17: Test 1 and Ch. 20 Magnetism

February 24: Ch. 20 Magnetism

March 3: Ch. 21 EM Induction, AC Circuits

March 10: Spring Break

March 17: Ch. 22 Electromagnetic Waves
March 24: Ch. 23 Light, Geometric Optics

March 31: Test 2 and Ch. 24 The Wave Nature of Light

April 7: Ch. 24 continued

April 14: Ch. 25 Optical Instruments

April 21: Selected material from Chapters 26-33 April 28: Selected material from Chapters 26-33

## Quotes

"You do not know anything until you have practiced" -R. P. Feynman

"90% of success is just showing up" - Woody Hayes

"What led me more or less directly to the special theory of relativity was the conviction that the electromotive force acting on a body in motion in a magnetic field was nothing else but an electric field" - Albert Einstein (1952)

"How often have I said to you that when you have eliminated the impossible, whatever remains, however improbable, must be the truth?" - Sherlock Holmes (Sir Authur Conan Doyle)