

Physics 100B
General Physics II
Fall 2009

COURSE ID # **MPKIOUSSIS99828 (needed to register online for homework)**

Logistics Lecture Room: **1124** (Science I, 1st floor)
Meeting Time: Monday & Wednesday 11:00 – 12:15 am

Instructor Prof. Nicholas Kioussis
Office: Science **I 1123**
Office Hours: **M:** 8:45 – 9: 30 am; and by appointment
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Prerequisites Physics 100A or equivalent

Textbook James S. Walker, **Physics**, 4th edition
Prentice Hall Publishing Company

Supplements **Student Study Guide**
Physics on the Internet: A Student's guide (FREE)
http://wps.prenhall.com/esm_walker_physics_2

Objectives This course is a continuation of Physics 100A and has the same general aim: to gain an understanding and appreciation of the fundamental laws of electricity, magnetism and modern physics. At the end of the course, the successful students will be able to recognize and appreciate many of the wonders nature has in store. In addition, students will develop and improve upon their problem-solving skills and learn to apply such skills to other areas of their college education.

Homework I would like to emphasize strongly the issue of problem solving. Learning how to approach and solve problems is **the most basic and essential part** of this course, and it is a highly useful skill in itself. Solving problems is also important because the process brings understanding of the physics and helps perform well in the exams. **The assigned problems are by no means the only ones the students should attempt.** They are just a set representative of the type of problems the students should know how to solve. Students are encouraged to work in groups in attempting these problems. **Using the web site above includes practice homework and tests with on-line feedback/grading keyed to the text.** Homework problems will be electronically assigned. Your new textbook includes the access code to the following website <http://www.masteringphysics.com/>. You can also purchase access to this site

online without purchasing the book. You will need to register at this site and select a login name and password (if you have not already done so in PHYS 100A). After you register, you can login and select the Class ID given by your instructor. You will be assigned homework problems from every chapter covered. The homework will be worth 10% of the total grade.

Topics

Electric and Magnetic fields, Currents and circuits, Electromagnetic fields, Optics, Special Theory of Relativity, Quantum Theory, Atomic physics, Nuclear Physics, and Elementary particles. (**Chapters 19-31**)

Requirement

The final letter grade for the course will be determined by the scores from 1) **two in-class mid-term tests (30%, 30%)**; 2) the **final exam (30%)** and 4) the **homework (10%)**. The letter grades will be based on the overall performance of the class. All tests will be closed book and notebook. Students will be provided with a sheet which will contain ALL necessary equations and constants. The final will be cumulative. The two midterms and final will be on:

- **1st midterm: Wednesday September 23, 2009**
- **2nd midterm: Wednesday October 28 , 2009**
- **Final: December 16 , 2009 10:15 am – 12.15 pm**

There will be weekly homework assignments; the solutions will be made available on the web site below, one week after the material is covered. The homework needs to be submitted and graded electronically before the deadline to be announced in class at the beginning of the following week. The students are expected to work on the homework problems, as it is the surest way of learning the material. The web site for solutions is : <http://www.csun.edu/~nkioussi/teaching.html> (under Physics 100B - Spring 2009)

GRADING CRITERIA

The grade distribution will be as follows.

A 88% and higher

B 72-87%

C 55-71%

D 41-54%

F 40% and below

We use the +/- system so in each range (no A+), the low end will be minus and the high end plus.

HOMework ASSIGNMENTS

Chapter 3 (Vectors) 12, 15, 20, 24, 29, 31 (PRACTICE)

Due date: Monday Aug. 31, 2009 (1 am)

Chap 19. 8, 12, 17, 23, 30, 31, 34, 44, 45, 47, 49, 50, 94 Due
date: Wednesday Sep. 2, 2009 (8 pm)