

PHYS4202 (Spring 2007) Course Information

Instructor:

Dr. K. Nakayama

Office: room 219, Physics Building

Email: nakayama@hal.physast.uga.edu

Office Hours:

Mondays, Wednesdays, Fridays: 10:00-11:00am

Textbook:

David J. Griffiths, Introduction to Electrodynamics, Third Edition.

Web Page System:

This course information will also be posted on the world wide web. The URL for the page is

<http://www.physast.uga.edu/courses.html> (click on Nakayama)

Topics to be covered:

Below is a tentative list of topics to be covered in this course. Note that it is subject to changes. The corresponding homework assignments are also subject to changes accordingly. These changes will be announced in class. Each student is *fully responsible* to keep track on such changes by attending class.

- 1) Electrodynamics: electromotive forces, Electromagnetic induction, Maxwell's equations.
- 2) Conservation Laws.
- 3) Electromagnetic Waves: in vacuum, in matter.
- 4) Potentials and Fields: the potential formulation, continuous distributions, Lienard-Wiechert potential, the fields of a moving charge.

5) Radiation: dipole radiation, radiation from a point charge.

6) Electrodynamics and Relativity.

Homework:

Homework assignments will be posted on the course web page, along with the due dates. Homework will be graded and count toward your final grade. Solutions to homework problems will be posted on the web. It goes without saying that homework is due on the day it is assigned to be due. Late submissions will not be accepted.

Tests:

There will be 2 tests during the semester, the dates of which will be announced in class. There will also be a cumulative final exam. All tests and the final exam will be closed-books and closed-notes.

Final Exam:

The Final Exam will be on May 02, 2007, from 8:00-11:00am.

Grading:

Homework: 20%

Average of Tests: 50%

Final Exam: 30%

The final letter grading scale: 90% – 100% : *A*; 85% – 90% : *A-*; 77% – 85% : *B+*; 70% – 77% : *B*; 65% – 70% : *B-*; 60% – 65% : *C+*; 55% – 60% : *C*; 50% – 55% : *C-*; 45% – 50% : *D*; < 45% : *F*.