

Course Syllabus
PHY 468 – Section 1
Electricity & Magnetism
3 Credit Hours
Fall - 2007

Location of Class: Room 107, Farrington Bldg.

Class Meeting Times: Tuesday & Thursday 11:00am – 12:20pm

Instructor: Dr. Brian Oetiker

Room 316, Farrington Bldg.

Phone: 294-1600

Email: phy_bgo@shsu.edu

Office Hours: Office hours for this class are scheduled from 9:30am – 11:00am Tuesday & Thursday. Feel free to visit me at any time I am not in class. Since I may not be in my office outside scheduled office hours, you may wish to make an appointment by email.

Course Description: This is a comprehensive course covering electrostatic and magnetostatic fields in vacuum and matter. The once separate theories of electricity and magnetism are unified in a single electromagnetic theory using Maxwell's equations. These equations are used to show that light can be described as an electromagnetic wave, thus bringing optics under the umbrella of electromagnetic theory.

Course Objectives: The following topics will be covered in this course:

- Math “review”, including vector algebra and all the calculus you will need for this class.
- Electrostatics.
- Special techniques.
- Electric fields in matter.
- Magnetostatics.
- Magnetic fields in matter.
- Electrodynamics.

Required Textbook: “Introduction to Electrodynamics” 3th Edition by David J. Griffiths (Prentice Hall publishers) ISBN:013805326X.

Required Supplies: N/A.

Attendance: Because of the high level of mathematics and difficult principles covered in this class, regular attendance is very important.

Homework & Quizzes: Homework problems will be assigned from each chapter. You will have approximately one week to work on these problems. On the day the homework is due, we will take some time in class to discuss the more challenging problems (you may be asked to present your solution to the class) to further your understanding of the material.

Midterm & Final Exams: There will be no multiple-choice questions on the exams and they will be closed-book.

Midterm: Thursday, October 4th (in class - tentative).

Final Exam: Final Exam Week.

MAKE-UP EXAMS WILL NOT BE GIVEN WITHOUT A NOTE FROM A PHYSICIAN.

Grading:

Homework: 30%

Midterm Exam: 30%

Final Exam: 40%

Your final grade will be determined based on the following distribution:

A: 90%-100%

B: 80% - 89%

C: 65% - 79%

D: 50% - 64%

F: 0% - 49%

Academic Dishonesty: All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

Classroom Rules of Conduct: Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Cellular telephones and pagers must be turned off before class begins. Students are prohibited from eating in class, using tobacco products, making offensive remarks, reading newspapers, sleeping, talking at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave the class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.

Visitors in the Classroom: Unannounced visitors to class must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the classroom.