

# Electricity and Magnetism

Physics 326 • Spring 2007

Instructor: Doug Juers

Office: Sci 244

Hours: Tues 11-12; Wed 10-11 and anytime my office door is open.

Texts: *Introduction to Electrodynamics*, 3rd ed., David J. Griffiths (required)  
*Div, Grad, Curl & All That*, H.M. Schey (optional)

## **Course Content**

This course is a continuation of Physics 325, in which we covered chapters 1-3,5 and part of 7. I plan to finish discussing electromagnetic induction, then cover E & B fields in matter, electromagnetic waves, radiation and relativity. This is Chapters 7, 4, 6, 9, 10 & 12 in Griffiths.

## **Problem Sets and the Text**

I'll assign reading from the Griffiths text, which you should do before we discuss the material. This text is excellent and you'll learn a lot by reading it. The Schey text is optional, but is a very good resource to improve your understanding of vector calculus. You probably can find it online for considerably less than the \$35 in the bookstore.

I will post reading assignments, problem sets, solutions, grades and any other material on CLEo. Problem sets will be due most Thursdays in class. You may discuss the problems with each other – this is a great way to learn the material. However, the solution you hand in should be your own. In other words, discuss things together if you'd like, but then go away and write it up yourself.

## **Exams**

There will be one take-home midterm, two in class quizzes and a final.

## **Grading:**

40% Problem Sets

30% Midterm & quizzes (mt=15%, quizzes = 7.5%)

30% Final