

Physics 3305, Electricity and Magnetism I, Fall 2011

Instructor: Prof. Wallace Glab **E-mail:** wallace.glab@ttu.edu

Office: SC 26, 742-3776

Office Hours: MWF 8:30–9:30 am, TT 2:00–3:30 pm

Class: MWF 12:00 – 12:50 p.m. SC 10

Class Webpage: www.phys.ttu.edu/~gglab/3305_f11.html

Required textbook: *Electromagnetic Fields*, by Roald K. Wangsness, 2nd. ed., Wiley. We will be covering Chapters 1-16 in this course, God willing. Find it in the bookstore or at Amazon used (for much cheaper).

Strongly recommended: A good book of mathematical fun facts with integral tables. A good choice is my favorite, *Tables of Integrals and Other Mathematical Data*, by Herbert Bristol Dwight. This is ancient, but available through Amazon. There are many others. Avoid the book by Gradshteyn and Ryzhik (AKA, the mad Russians), which has every integral known to man and some known only to the octopoid people of Epsilon Eridani III.

Also: If you don't have a good, concise book on vector calculus, *Div, grad, curl and all that*, by H. M. Schey is a good one. I know this because I lent it to a student and never got it back.

Topics covered: Vector calculus, electrostatics in vacuum and in matter, electric currents, static magnetic fields.

Assessment: Student progress will be assessed through homework, quizzes and exams performance. The goal is to not fail the class.

Homework: There will be a number of homework assignments that will be collected, graded, and returned with helpful comments.

Quizzes: There will be a total of roughly 6 quizzes that will be given in class (typically on Fridays). These should last, optimistically, about 20 minutes.

Exams: There will be a midterm exam and a final exam. The midterm will be given some evening at a mutually agreed time, so you will be able to take two hours to work on it. The final will be at the time listed for our class meeting time, Wednesday, 12/14, 10:30 am - 1:00 pm.

Grading: Grading will occur. The breakdown of percentages assigned to each category of work for the calculation of your final grade will be: Homework average, 30%; Quiz average 20%; Midterm 25%; Final 25%. The preliminary grade scale is

A: 86 and up; **B:** 85-74; **C:** 73-62; **D:** 61-52

- Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, you may contact the Student Disability Services office in 335 West Hall or 806-742-2405.