

# Physics 432: Electricity and Magnetism

Spring 2009: Section 432001

Instructor: James R. Thompson  
Office: 406-A Nielsen Physics Building  
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Office Hrs: 13:00 - 15:00 TR (or by appointment, if this does not work for you.)  
Class: 8:10 - 9:25 TR in Nielsen Physics 306

**Text:** *Introduction to Electrodynamics, 3-rd Ed* by David J. Griffiths

**Tests and Grades:** Homework 20% Mid-term exam 35%  
Short quizzes 10% Final exam 35%

**Test dates:** Mid-term exam: TBA  
Exam: 5 May 2008 (*Tuesday*) at 8:00 - 10:00 AM

**Grading scale:** A = 100-90; B = 80-89; C = 70-79; D = 60-69; F < 60

- **Class preparation and protocol:** It is extremely important to keep up with the work in the class, since the material builds on itself. Each day, you should preview the topics for the next class; after class, study the topics in detail, working the assigned exercises and problems, etc. To encourage your engagement, we'll have random quizzes, as determined by a coin-toss at 8:10 AM. You can help make the class more productive by thoughtful questions. Please check immediately that you understand all credits earned on exams, homework, etc.: one week after I return them, the grades will be "frozen" as is.
- **Disabilities:** Any student who feels s/he may need an accommodation based on the impact of a disability should contact me privately to discuss your specific needs. The Office of Disability Services at 974-6087 in Hoskins Library can coordinate reasonable accommodations for students with documented disabilities.
- **Cheating:** Cheating will not be tolerated -- every person should have an equal chance to do well. The penalty for cheating on *any aspect* of this course will be an "F" for the course, in addition to other actions permitted by University rules. No outside materials are permitted on any test or exam, except as stated explicitly by the instructor.

Ch: §	Topic	Exercises and Problems
5	Magnetostatics	set 1: # 23, 24, 27, 34, 35, 39, 49
6	Mag. fields in matter	set 2: # 1, 3, 7, 8, 12, 26
7	Electrodynamics	set 3: # 1, 7, 8, 10, 16, 17 set 4: #. 20, 22, 25, 26
8	Conservation Laws	set 5: # ...
9	EM waves	set 6: # 9, 10, 11, 16, 18, 19c
11	Radiation	set 7: # 3, 21
12	Relativity	set 8: #

## OUR OBJECTIVES in this COURSE

- ✓ Gain **deeper understanding** of Electricity and Magnetism.
- ✓ Develop a **more generalized approach**, summarized in **Maxwell's Equations**.
- ✓ Advance your skills and capability for **formulating and solving problems**.
- ✓ Hone your **math skills**.
- ✓ Expand and exercise your **physical intuition** and instincts.