Physics 431: Electricity and Magnetism
Fall 2010: Section 431001

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Class: 8:10 - 9:25 TR in Nielsen Physics 512
Office Hrs: 9:30 - 10:30 TR (or by appointment, if this does not work for you)

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

Tests and Grades:

- Attendance: 10%
- Quizzes: 10%
- Mid-term exam: 20%
- Final Exam: 35%
- Homework: 25%

• 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 the class, you then study the topics in detail, working the assigned exercises and problems, etc. You can help make the class more productive by thoughtful questions and careful attention. Please check immediately that you understand all credits earned on exams, homework, etc.

• Disabilities: Any student who feels s/he may need an accommodation based on the impact of a disability should contact the instructors privately to discuss your specific needs. Contact the Office of Disability Services at 974-6087 in Hoskins Library to 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 all other actions permitted by University rules. No outside materials are permitted on any test or exam, except as stated explicitly by the instructor.

Tests: Mid-term Exam: 5 October 2010
Final Exam: 9 December 2010 (Thursday) at 8:00 - 10:00 AM

Ch: § Topic Exercises and Problems Due

1 Vector Analysis
   set 1: # 2, 3, 6, 10, 13, 15, 16, 18, 25 Aug. 26
   set 2: # 30, 32, 35, 40, 42, 45, 55, 58, 61 Sep. 7

2 Electrostatics
   set 3: # 1, 8, 10, 15, 24, 26, 32, 33 Sep. 16
   set 4: # 34, 37, 40, 45, 46, 50, 52 Sep. 28

3 Special Techniques
   set 5: # 7, 10, 12, 18, 21, 24, 25 Oct. 12
   set 6: # 27, 29, 34, 38, 42, 46, 49 Oct. 21

4 Electric Fields
   set 7: # 4, 6, 8, 11, 12, 13, 14 Oct. 28
   in Matter
   set 8: # 15, 16, 20, 23, 27, 30, 37 Nov. 4

5 Magnetostatics
   set 9: # 3, 6, 9, 12, 15, 17, 19, 21 Nov. 11
   set 10: # 22, 24, 26, 32, 33, 38, 40 Nov. 30

Grading scale: A = 100-90; B = 80-90; C = 70-80; D = 60-70; F < 60
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.