2013

360-01 Electricity and Magnetism

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Electricity and Magnetism

Course: Phys 360
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Text: Introduction to Electrodynamics by D. J. Griffith
Classical Electrodynamics by J. D. Jackson
Theoretical Physics, vol. 2 and 8 by L. Landau and E. Lifshitz

Goals:

Understand the topics *Vector Analysis, Electrostatics, Special Techniques to solve electrostatic problems (separation of variables and multipole expansion), Electric Fields in Matter, Magnetostatics, Magnetic Fields in Matter, Electrodynamics*
You will have to learn to use books as a resource. This means that we will sometimes jump around in the book, skip chapters and come back to it later on. Make use of the index list and the appendices in the back of the book!

Outline:
August: Vector Analysis
September: Electrostatics
October: Special Techniques (Separation of Variables, Multipole Expansion)
            Magnetostatics
November: Electrodynamics

Homework assignments:

Homework will be assigned in class. It must be turned in at the beginning of class on the day that it is due. When you hit "a wall" when trying to solve homework problems…
…use the example problems in the book as guide
…talk to others in your class
…come to my office. I will request to see your serious attempts at solving the homework problems.
No credit will be given for homework which is turned in late.
I also assign reading as homework. I will test you on this homework with quizzes.

Exams and Final:

There will be three midterm exams given during the course of the semester and one comprehensive final exam. Exams must be taken when scheduled. Missed exams will count for zero credit. A legitimate written excuse must be provided before any make-up exam will be considered.

Grading Policy:

Homework	17%
Quizzes	3%
Midterm, Sept. 16th	20%
Midterm, Oct. 14th	20%
Midterm, Nov. 13th	20%
Final	20%
Total	**100%**

You can get 3 points for each quiz question (wrong 0, somewhat correct 1-2, correct 3). You can get between 10 to 20 points for each homework problem. You can view your current grade in blackboard.

Attendance:

Class attendance is expected. You are responsible for the information presented in the lectures and for any assignments made during the class time. If you are late to class or absent, you are responsible for obtaining any pertinent information that was given during class.

Scale:

A	**95-100%**
A-	**91-94%**
B+	**88-90%**
B	**84-87%**
B-	**81-83%**
C+	**78-80%**
C	**74-77%**
C-	**71-73%**
D+	**68-70%**
D	**64-67%**
D-	**60-63%**
F	**<60**

If your final grade is within <3 % of the next higher grade, your participation in class is taken into consideration. No opportunity for extra credit is given otherwise.