PHGN 462: Advanced Electromagnetism

Instructor: Chris Kelso

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Class: Meyer Hall 220, MTW 5:30-7:10 p.m.

Office Hours: MTW from 4:30-5:30 and I will stay after class for as long as anyone is around. We can also set up a meeting for other times (by email is usually easiest). You are always welcome to drop by the office and as long as I am there and not super busy I can talk.

Text: *Introduction to Electrodynamics* by Griffiths.

Topics: Electrodynamics with applications in optics and relativity.

Homework: I will give out the problem sets on Mondays. The assignment will be due at the *beginning* of class on Tuesday of the next week. No late work will be accepted. I encourage you to consult me and work together on the questions as this is where most of your learning will occur. However, direct copying will be considered academic dishonesty.

Homework Rules:

1. In block letters, write your name and the assignment number at the top of the first page.
2. Circle the problem number, box in answers, and draw a line at the end of each problem.
3. Staple pages together with the problems in numerical order.
4. You may look up integrals without explicitly doing them, but please cite the reference (i.e. Dwight "Tables of Integrals and other Mathematical Data" page 13, used Mathematica, etc.).
5. If the work presented is not legible to the grader then credit will not be given.

Grading: Your grade will be calculated based on the following scale:

Homework	30%
Exams 1, 2, 3	45% = 3*15%
Final Exam	25%

In addition, if you final exam score is higher than your lowest score on the other three exams, your final exam score will replace that lowest test score.

Exams:
Exam 1 will be given in class Tuesday, July 10th, and will cover Chapters: 7.3 (Maxwell's Equations), 8 (Conservation Laws) and 9 (Waves and Optics).

Exam 2 will be given in class Tuesday, July 24th, and will cover Chapters 10 (Potentials and Fields) and 11 (Radiation).

Exam 3 will be a take home exam that will be due on Friday, August 3 and will cover Chapter 12 (Relativity).

The final exam will be cumulative and will be held during the final class on Wednesday, August 8th.

I am always open for suggestions for improving the class. So if you have any ideas, just let me know. Also, I reserve the right to change information on the syllabus as issues in the course come up.