

PHGN 462 – Summer 2011 Syllabus

Instructor: David Flammer
Office: MH447A (I'm tucked away in the back behind a second door)
Class room: Meyer Hall 220 (was going to be Meyer Hall 357)
Class time: MTW 5:30pm-7:10pm
Office Hours: MTW 3:30-4:30

Text Book: Griffiths Introduction to Electrodynamics

Web site: [http://tic.mines.edu/csm/wiki/index.php/PHGN462-SM11 - Advanced Electromagnetism](http://tic.mines.edu/csm/wiki/index.php/PHGN462-SM11_-_Advanced_Electromagnetism)
Pretty much all of the information about this course (including this document) can be found here. Note: there are no spaces in the URL, they are underscores.

Topics: (1) Maxwell's Equations
(2) Conservation Laws in Electromagnetism
(3) Electromagnetic waves
(4) Electromagnetic Potentials, Fields, and Gauge Transformations
(5) Radiation Fields
(6) Special Relativity

Homework:

There will be roughly 1 homework assignment per week, being due the following week. When each assignment is given, the due date will be given with it. The homework must be turned in at the beginning of the class on the due date. No late work will be accepted.

Homework Rules:

- (1) Your name must be written legibly at the top of the first page. If the grader cannot read your name, you will not receive ANY credit (with no recourse), so take your time in this.
- (2) Multiple pages must be stapled together with the problems in numerical order.
- (3) Circle the problem numbers, and draw a horizontal line between problems across the entire page.
- (4) You are graded by your work. No work will mean no credit.
- (5) If you use Mathematica or a reference to do your integrals, that is fine; but please explain how the integral was done ("used Mathematica" or "used 'Such-And-Such Reference'").

Grading:

Homework: 40%
Exams: 20% x 3 = 60%

Exam Dates:

Exam 1: Tuesday, July 19, 2011 (in class)
Exam 2: Tuesday, August 2, 2011 (in class)
Final Exam: Wednesday, August 17, 2011 (in class)

Disclaimer: All of this information is subject to change as the course unfolds. Since it is a double-time course, I expect this is possible. If you have suggestions for improving the course, please let me know.