

Syllabus: PS330, Fall 2009.

Lectures: MWF, 12:40-1:40 pm, in room B55A
Office hours: MWF 1:40-5:00 pm
Textbook: Introduction to Electrodynamics by David J. Griffiths, (3rd ed.)
Course website: <http://mercury.pr.erau.edu/~greta9a1> (click on the link for PS330)

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Course Description (from catalog)

Solutions of electrostatics problems using Poisson's equation and Laplace's equation, electrostatic energy, electric current, magnetic field, electromagnetic induction, physics of plasmas, Maxwell's equations, application of Maxwell's Equations (reflection, refraction, waveguides, antenna radiation). Students will write some simple computer programs¹. Prerequisites: CS223, MA442, PS303, PS305, PS320.

Attendance

Don't miss class! – It's surprisingly easy to fall behind and very difficult to recover. The same goes for assigned work and reading. Discipline yourself to do them the week they are due. Putting them off just doesn't work.

Homework

Homework is our main learning tool. Homework will be assigned every week and a subset of the questions will be marked. Please discipline yourself to do the homework by the due date, no matter how busy you are. Homework can not be accepted late. I think the following analogy is a good one: You can't become proficient at a sport or at playing a musical instrument without practicing several times a week; the same goes for physics! Do the homework! And start early. It may often take more than one sitting to complete each homework set.

Students with Disabilities

ERAU is committed to the success of all students. It is a University policy to provide reasonable accommodations to students with disabilities. If you would like to request accommodations due to a physical, mental, or learning disability, please contact the Disability Support Service department in Building 18 or call 777-3700. All discussions are confidential.

Class Continuity in Case of Emergency

In the case of temporary campus closure due to unforeseen events, classes will continue in a remote-learning mode. If this happens, instructions will be posted on the class website and via email.

Holidays

Class will not meet: Mon. Sep. 7 (Labor Day), Fri. Oct. 2 (University Day), Wed. Nov. 11 (Veterans' Day) and Wed.-Fri. Nov. 25-27 (Thanksgiving).

¹ The computer programming part is now covered in other physics core classes instead.

Weights towards course grade

Homework	20%
Exam 1	20%
Exam 2	20%
Cumulative Final Exam	40%

Total:	100%

Meaning of letter grades

<i>A</i>	: 90 - 100%
<i>B</i>	: 75 - 90%
<i>C</i>	: 60 - 75%
<i>D</i>	: 50- 60%
<i>F</i>	: <50%

Tentative Class Schedule

Weeks 1-2	Relevant Mathematics and Vector analysis: Chapter 1.
Weeks 3-5	Electrostatics: Chapters 2-3.
Weeks 5-6	Electrostatics in linear media: Chapter 4
Week 7 (subject to change)	Exam 1
Weeks 7-8	Magnetostatics: Chapter 5
Weeks 9-10	Magnetic fields in linear media: Chapter 6
Week 11 (subject to change)	Exam 2
Weeks 11-14	Electrodynamics: Chapter 7
Week 15	Finish up material and/or review
Exam Week	Comprehensive Final Exam