

PHY 6347: APPLIED ELECTROMAGNETIC THEORY SPRING 2010

Instructor: Prof. M.K. Kim
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COURSE DESCRIPTION:

Second semester of sequence PHY 6346, PHY 6347. Electromagnetic waves, wave guides and resonant cavities, diffraction, relativistic-particle kinematics and dynamics, plasmas and magnetohydrodynamics.

LECTURES: 2:00 – 2:50 pm, Mon, Wed, & Fri, PHY108

- Required textbook: J.D. Jackson, *Classical Electrodynamics*, 3rd ed.
- Some supplementary materials may be available in-class or online.
- Attendance of lectures is mandatory and can affect grading.
- Occasionally, I will make announcements of assignments and other matters by email (to ____@mail.usf.edu addresses). You will be responsible for checking the email regularly.

We will cover the following chapters.

6. Maxwell equations, macroscopic electromagnetism, conservation laws
7. Plane electromagnetic waves and wave propagation
9. Radiating systems, multipole fields and radiation
10. Scattering and diffraction
11. Special theory of relativity

GRADING:

midterm i	~25 %	~ early February
midterm ii	~25 %	~ late March
final exam	~50 %	Wed., May 5, 3:00 – 5:00 pm

- There may be occasional home work and/or quizzes, in which case the weight distribution may be adjusted.
- Plus/minus grade system will be used for this course.

THE FINE PRINT:

- In the event of an emergency, it may be necessary for USF to suspend normal operations. During this time, USF may opt to continue delivery of instruction through methods that include but are not limited to: Blackboard, Elluminate, Skype, and email messaging and/or an alternate schedule. It's the responsibility of the student to monitor Blackboard site for each class for course specific communication, and the main USF, College, and department websites, emails, and MoBull messages for important general information.
- Any student with a disability is encouraged to meet with the instructor privately during the first week of class to discuss accommodations. Each student must bring a current Memorandum of Accommodations from the Office of Student Disability Services (974-4309, SVC1133) which is prerequisite for receiving accommodations. Accommodated examinations through the Office of Student Disability Services require two weeks notice. All course documents are available in alternate format if requested in the student's Memorandum of Accommodations.
- Students who anticipate the necessity of being absent from class due to the observation of a major religious observance must provide notice of the date(s) to the instructor, in writing, by the second class meeting.
- An "I" grade may be awarded at the discretion of the instructor only when the student is otherwise earning a passing grade and only if the incomplete is due to the omission or fault of the student. Students are advised to initiate a written contract for incomplete grades.
- Class notes are not permitted for purpose of sale.