

CRN:

[UGA Course Bulletin:

Course Title: Advanced Electromagnetic Theory I

Course Description: A study of classical electrodynamics.

Topics include development of Maxwell's electromagnetic field equations and the Lorentz force equation, electrostatics and magnetostatics.]

This is a two semesters standard graduate level advanced e&m course and should only be taken by students who have done well (grade of B or higher) in PHYS 4201/6201 and PHYS 4202/6202 (or equivalent). If you do not have the adequate preparation, you most likely will not do well in PHYS 8201,8202 and you should consider enrolling Phys 6201/6202. If you are not confident, please discuss it with me and with your advisor.

Period 3: 10:10am - 11:00am MWF Room 254
Professor Mon, Room 223D

Office Hours:

Monday : 9:30am - 10:00am

Wednesday : 11:15am -11:45am

Appointment can be made for other times.

Professor Mon can be reached at 542-3454.

Primary means of communication is to meet with Professor Mon after class or at office hours.

Federal law prohibits discussion of student record without positive identification. This excludes common use of telephone and email. Attendance is mandatory but no roll will be taken.

There will be two tests and a final exam. All tests will be closed book and closed notes. Academic honesty will be strictly enforced. All students are expected to take the tests and final exam. The dates will be announced in class.

Excused absence from a test must be documented and the student will take a makeup test.

Grading Policy:

30% of tests + 30% of final exam + 40% of homework = 100%

The letter grade will be assigned as:

A = 90 to 100

A- = 87 to 89

B+ = 83 to 86

B = 75 to 82

B- = 73 to 76

C+ = 66 to 72

C = 56 to 65

D = 50 to 55

F = 0 to 49

Standard rounding will be used for the final numerical grade. For example, 89.4999 will be 89 and A-, but 89.5 will be 90 and A. There are no exception to these assignments. All withdrawal will be processed in accordance with University policy.

Students are expected to attend all classes but no record of attendance will be taken.

Required:

Classical Electrodynamics Third Edition by John David Jackson

ISBN-13: 978-0471309321

Lecture attendance is mandatory and all homework must be handed in to me in class. Since solving problem is central to learning physics, homework will be graded and contribute toward your final grade. Learning from your peer can be valuable and encouraged but plagiarism is forbidden.

To receive credit, students must show that it is their own work by explaining the reasoning for the solution in a neat and legible manner.

Course Schedule (subject to change) :

we will consider:

Electrostatics, Magnetostatic, Electromagnetism and Electrodynamics,

Theory of Special Relativity and Covariant Formulation of Electromagnetism.

Final exam: Dec 2017. 8:00 - 11:00 am. Room: TBA