

# Physics 212 Section 3

## Syllabus Spring 2011

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### General Information

**Professor: Dr. Josh Gladden**

email: [jgladden@olemiss.edu](mailto:jgladden@olemiss.edu); Phone: 915-7428

Offices: NCPA 1062 & Lewis Hall 211

Office Hours: Mon (3:00 – 4:30) & Fri. (1:00 – 2:00)

in Lewis 211 or by appointment at NCPA

Website: [www.phy.olemiss.edu/~jgladden/phys212/](http://www.phy.olemiss.edu/~jgladden/phys212/) (check regularly!)

Lecture: MWF 2:00 – 2:50 in Lewis 101

Required Text: *Physics for Scientists and Engineers 8<sup>th</sup> ed.*, Vol.2  
Serway & Jewett (electronic version is OK!)

Web Based HW (required): WebAssign (see instructions)

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### Course Description

This is the second course of a two-course sequence on general calculus based physics, mainly for science and engineering majors. (The companion course is PHYS 211.) Students who enroll must also take, or have previously passed, the PHYS 222 lab course.

We cover roughly Volume 2 (Chap. 23 - 38) of the textbook. The main themes are: electric and magnetic fields, DC and AC circuits, electromagnetic induction, ray and wave optics, and quantum theory.

Significant goals of this course are for students to improve their analytical reasoning and problem solving skills. Part of this consists of “applying equations” and “getting the right result”, but students will be evaluated on a broader set of skills, including the way they analyze a problem and place it in context, as well they write about it. We will be using calculus (differentiation and integration) throughout the course .

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### Evaluation

#### Weights

Homework ... 10%

Test 1 .....15%

Test 2 .....15%

Test 3 ..... 15%

Quizzes ..... 15%

Extra Credit.... 5%

Final Exam ... 25%

**Homework:** Homework will be assigned for each chapter we cover; announcements will be made in class and posted on the course website. Most homework will be done through the on-line companion to the course known as “WebAssign” offered through the publisher ([www.webassign.com](http://www.webassign.com)). Details on how to access the system are posted on my website. The lowest homework grade will be dropped. (See note under **Group Work** below.)

**Quizzes:** There will be a series of short in class quizzes throughout the semester. These quiz grades will combine for a full test grade in the final average. The material on the quizzes will closely match that in the homework.

**Tests:** There will be four midterm tests and a final exam, consisting of essay style questions, problems to be worked out, and multiple choice questions. Students will be allowed to use a calculator, but no books or notes during the tests.

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**Letter Grades**  
Typical letter grade break  
points are as follows:

A: 88% - 100%

B: 75% - 87%

C: 65% - 74%

D: 55% - 64%

F: < 55%

(subject to change)

**Extra Credit (PhET):** Students who complete a session with the on-line physics computer tutoring system, as explained in the class announcements page later in the semester, will get full credit (100%) for 5% of the total grade of the course.

**Final Exam:** A cumulative final exam will be given on Monday, May 9 from 4:00 – 7:00 pm. Details on the topics stressed and exam policies will be given later in the semester.

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## Course Policies

### Absences

Students are expected to attend each lecture unless you have justification. If you must miss a lecture, make contact with me as soon as possible. Absences from tests count as zeros, unless they are justified. If you must be absent during a test for a University sponsored event, you **MUST** discuss this me before the test date. In the case of an unexpected emergency, you must make contact with me as soon as possible and have documentation.

### Academic Integrity (Cheating)

Academic integrity is essential to all the values upon which the University is founded. Students must therefore embody academic honesty in all aspects of their work. A student with a documented case of plagiarism or academic cheating in this course will receive the grade of F for the course and may face disciplinary action by the University, including expulsion. You should know that I take this **SERIOUSLY**.

### Group Work

Physics is very rarely done alone. I encourage you to form study groups in preparation for homework assignments and tests. **HOWEVER**, the homework assignments should be the work of the individual student. If you can not do the homework, you will not do well on the tests!

### Clickers

You are **NOT** required to have a clicker for this course. However, if you already have a clicker for another course, please let me know. If enough people have them, I will use them. The clickers should be the University standard clicker (PRS-RF), available in the bookstore.

### Changes

Any changes will be brought to your attention and posted on the web site.

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