

## Physics 212: Physics for Scientists and Engineers II (Fall 2013)

**Instructor:** Dr. Ahmed M. Hamed  
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 Lectures: 11:00am - 12:15pm, TTH, HELD Lewis Hall, Room 101 (Auditorium)  
 Office Hours: 1:30pm - 2:40pm, TTH, and by appointment

**Textbooks:** “Physics for Scientists and Engineers” 9<sup>th</sup> Ed. By Serway and Jewett;

**Teaching Assistant:** TBA

**Note:**

1. The grades in this course will be determined by your performance on three term exams (20% each), final exam (30%), homework (10%), and bonus problems (5%). The grade ranges are: 90-105 = A; 80-90 = B; 65-80 = C; 50-65 = D. In order to earn the 5% of bonus problems you should solve all the assigned “challenge” problems.
2. If your grade on the Final Exam is higher than your lowest grade on one of the three term exams during the semester, the grade on the final will replace that one, lowest exam grade in computing the course grade. The final Exam grade **cannot** be used to replace an exam that was missed.
3. September 9<sup>th</sup> is the last day of refund period, and October 7<sup>th</sup> is the last day for course withdrawals.
4. **Final exam (comprehensive):** December 10<sup>th</sup>, Tuesday, 12:00-3:00pm **Please note there is no make-up for the final.**
5. Access and do the homework problem online at <https://www.webassign.net> (see instructions\*)

Week/Date	Chapter/Topic	Chapter/Homework
1 Aug 27; 29	<b>Chapters 23, 24:</b> Electric field, Gauss’ law	HW1: Chapter 23; due T Sep 3
2 Sep 3; 5	<b>Chapters 24, 25:</b> Gauss’ law, elec. potential	HW2: Chapters 24, 25; due T Sep 10
3 Sep 10; 12	<b>Chapters 26, 27:</b> Capacitors, Ohm’s law	HW3: Chapter 26; due T Sep 17
4 Sep 17; 19	<b>Chapters 27, 28:</b> Ohm’s law; Kirchhoff’s rules	HW4: Chapters 27, 28; due T Sep 24
5 Sep 24; 26	<b>Chapter 29:</b> Magnetic forces Sep 26 TH <b>Exam I</b>	HW5: Chapter 29; due T Oct 1
6 Oct 1; 3	<b>Chapters 30, 31:</b> Mag. fields; Faraday’s law	HW6: Chapter 30; due T Oct 8
7 Oct 8; 10	<b>Chapters 31, 32:</b> Faraday’s law; inductance	HW7: Chapters 31,32; due T Oct 15
8 Oct 15; 17	<b>Chapters 33, 34:</b> AC, EM waves	HW8: Chapter 33; due T Oct 22
9 Oct 22; 24	<b>Chapter 34:</b> EM waves Oct 24 TH <b>Exam II</b>	HW9: Chapter 34; due T Oct 29
10 Oct 29; 31	<b>Chapters 35, 36:</b> light; image formation	HW10: Chapter 35; due T Nov 7
11 Nov 5, 7	<b>Chapters 36, 37:</b> image formation; wave Optics	HW11: Chapter 36; due T Nov 12

Week/Date	Chapter/Topic	Chapter/Homework
12 Nov 12, 14	<b>Chapters 37, 38:</b> wave optics; polarization	HW12: Chapter 37; due T Nov 19
13 Nov 19, 21	<b>Chapter 38:</b> polarization <b>Nov 21 TH</b> <b>Exam III</b>	HW13: Chapter 38 due; T Nov 26
14 Nov 26; 28	<b>Thanksgiving holiday</b>	
15 Dec 3, 5	<b>Chapter 39:</b> Relativity.	HW14: Chapter 39; due T Dec 10
16 Dec 10 T	<b>Final exam, 12:00-3:00 pm</b>	

**\*Online Homework (WebAssign Instruction):**

You must self-enroll, the class key for Physics 211 is: **olemiss 0892 4618**, please supply your entire student Id accurately in order for the system to transfer credit from Web Assign to Blackboard. Student quick start guide is available at: [http://www.webassign.net/manual/WA\\_Student\\_Quick\\_Start.pdf](http://www.webassign.net/manual/WA_Student_Quick_Start.pdf)

**Do Yourself (and Me) a Favor**

Read about the topics before I discuss them in lectures. It is not necessary that you study them carefully, but at least get the “smell of it”. This should make it much easier for you to follow the lectures and that should make them more interesting.

**Recitation Sessions:**

We will set up time (after 5:00 pm) for recitation sessions according to the students’ schedule and the room availability. The recitation sessions are very important in order to practice solving the homework problems, enforce the physics concepts, and to obtain a good grade in this course.

**Disclaimer:**

This is a tentative syllabus and a slight adjustment might be made in due course.

**ADA statement**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Office of Student Disability Services (SDS) at 234 Martindale Center ([sds@olemiss.edu](mailto:sds@olemiss.edu)) phone: 662-915-7128

**Academic Integrity statement:**

As an Olemiss student I have abided by the UM academic integrity policy. My words and actions will reflect Academic Integrity. I will not cheat or lie or steal in academic matters.

I will promote integrity in the University of Mississippi community. For more information, refer to:

[http://www.olemiss.edu/depts/general\\_library/instruction/resources/plagiarism\\_resources/reinforcing.html](http://www.olemiss.edu/depts/general_library/instruction/resources/plagiarism_resources/reinforcing.html)