Physics 212: Physics for Scientists and Engineers II (Summer 2015)

Instructor: Dr. Ahmed M. Hamed
Office: 5 Kennon Observatory
Phone: 662- 915 -7849
Email: hamed@phy.olemiss.edu
Online: http://www.phy.olemiss.edu/~hamed
Lectures: 8:00am - 9:50am, M T W TH F, HELD Bishop, Room 104
Office Hours: 10:00am - 12:00pm, M W and by appointment

Textbooks: "Physics for Scientists and Engineers" 8th or 9th Ed. By Serway and Jewett;

Teaching Assistant: TBA

Notes:
1. The grades in this course will be determined by your performance in two term exams (20% each), final exam (40%), homework (10%), attendance (4%), pre-lecture quizzes (2%), in-class quizzes (2%), and bonus problems (2%). The grade ranges are: 90-100 = A; 80-90 = B; 65-80 = C; 50-65 = D.
2. The Final Exam will replace the worst score of the two term exams if it is higher than any of them. The final Exam grade cannot be used to replace an exam that was missed.
3. July 1st is the last day of refund period, and July 13th is the last day for course withdrawals.
4. Final exam (comprehensive): Mon. July 27th, 8:00am-11:00am. 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
1	June 29	**Chapter 23:** Electric field
1	June 30	**Chapter 24:** Gauss's law
1	July 1	**Chapter 25:** Electric potential
1	July 2	**Chapter 26:** Capacitors
2	July 6	**Chapter 27:** Ohm's law
2	July 7	**Chapter 28:** Kirchhoff's rule
2	July 8	**Exam I**
2	July 9	**Chapter 29:** Magnetic forces
2	July 10	**Chapter 30:** Magnetic fields
3	July 13	**Chapter 31:** Faraday's law
3	July 14	**Chapter 32:** Inductance
3	July 15	**Chapter 33:** Alternating currents
3	July 16	**Chapter 34:** EM waves

Week/Date		Chapter/Topic
3	July 17	**Chapter 35:** Light
4	July 20	**Exam II**
4	July 21	**Chapter 36:** Image formation
4	July 22	**Chapter 37:** Wave optics
4	July 23	**Chapter 38:** Polarization
4	July 24	**Chapter 39:** Relativity
5	**July 27**	**Final Exam (comprehensive), time: 8:00am -11:00am**

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

***Online Homework (WebAssign Instruction):**
You must self-enroll, the class key for Phys 212 is: **olemiss 5050 9182**, 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

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.

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) 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

Objective:
This course is primarily about electricity and magnetism phenomena. The subject describes the motion of charged particles, and accordingly the sub-atomic particle dynamics, was developed in the 18th century and is called "classical electrodynamics". This course provides a foundation for almost all of the current technology, which stems from the Maxwell's Equations and atomic physics. This course is essential for most natural sciences and engineering majors. Among many several rather broad goals, the student will learn a few new important concepts in physics, learn to apply these concepts to practical problems, and gain the ability to reason qualitatively and quantitatively about physics.