

Physics 212: Physics for Scientists and Engineers II (Summer II 2016)

1. **Instructor:** Dr. Ahmed Rashed
Office: 225 Lewis Hall
Phone: 662- 915 -7849
Email: amrashed@olemiss.edu
Lectures: 8:00 AM - 9:50 AM, M T W TH F, HELD Lewis Hall, July 5 - July 29
Room 101 (Auditorium)
Office Hours: 10:00 AM - 12:00 PM, M W and by appointment
2. **Textbooks:** “Physics for Scientists and Engineers” 9th Ed. By Serway and Jewett;
3. **Recitation Sessions:** TBA “Work out extra problems, attendance is not mandatory.”
4. **Grading Scheme:** Exam (1)† → 15%, Exam (2) † → 15%, Final Exam † → 30%,
Homework → 30%, Attendance* → 4%, Quizzes*** → 6%,
5. **Grade Ranges:** A - & A = 90-100; B- & B & B+ = 80-90; C- & C & C+ = 65-80; D = 50-65.
6. **Final exam (comprehensive):** Three hours exam, Monday, August 1, 8:00 a.m.
Please note there is no make-up for the final exam.
7. Access and do the homework problem online at <https://www.webassign.net> (see instructions**)
8. July 7 is the last day to register or add classes, July 14 is the last day for course withdrawals.
9. **Grader:** “Neetish Pradhan” nbpradha@go.olemiss.edu, office hours TBA, office # 225.

Week/Date	Chapter/Topic	Chapter/Homework	Quiz
1 July 5, Tu	Ch 23: Electric Field	HW1: Ch 23, due July 7	
2 July 6, W	Ch 24: Gauss’ law	HW2: Ch 24, due July 8	Q1: Ch 23
3 July 7, Th	Ch 25: Electric Potential	HW3: Ch 25, due July 9	
4 July 8, F	Ch 26: Capacitance and Dielectric	HW4: Ch 26, due July 10	Q2: Ch 24, 25
5 July 11, M	Ch 27: Current and Resistance	HW5: Ch 27, due July 14	Q3: Ch 26
6 July 12, Tu	Ch 28: Direct-Current Circuits	HW6: Ch 28, due July 15	
7 July 13, W	Ch 29: Magnetic Fields July 13 Wed	EXAM I	
8 July 14, Th	Ch 29: Magnetic Fields	HW7: Ch 29, due July 16	
9 July 15, F	Ch 30: Sources of Mag Fields	HW8: Ch 30, due July 17	Q4:Ch27, 28
10 July 18, M	Ch 31: Faraday’s Law	HW9: Ch 31, due July 20	Q5:Ch29,30
11 July 19, Tu	Ch 32: Inductance	HW10: Ch 32, due July 21	
12 July 20, W	Ch 33: Alternating-Current Circuits	HW11: Ch 33, due July 22	Q6:Ch 31, 32
13 July 21, Th	Ch 34: Electromagnetic Waves		
14 July 22, F	Ch 35: Nature of Light July 22 Fri	HW12: Ch 34, due July 23 EXAM II	
15 July 25, M	Ch 36: Image Formation	HW13: Ch 35, due July 26	Q7:Ch 33, 34
16 July 26, Tu	Ch 36: Image Formation	HW14: Ch 36, due July 28	
17 July 27, W	Ch 37: Wave Optics	HW15: Ch 37, due July 29	Q8:Ch 35, 36
18 July 28, Th	Ch 38: Diff and Polarization.	HW16: Ch 38, due July 30	
19 July 29, F	Review		
20 August 1, M	FINAL EXAM: 8:00 am- 11:00 am		

***Attendance**

“The university requires that all students have a verified attendance at least once during the first two weeks of the semester for each course. If your attendance is not verified, then you will be dropped from the course and any financial aid will be adjusted accordingly. Please see <http://olemiss.edu/gotoclass> for more information.” Attendance will be taken each day by using the scanners. To comply with attendance verification requirements, data captured by the attendance scanners will verify your attendance during the first two weeks of class.

****Online Homework (WebAssign Instruction)**

You must self-enroll, the class key for Phys 212 is (**olemiss 5938 2173**), please supply your entire student ID and first and last name (not nick name) 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

*****Quizzes**

A quiz will be given every Monday, Wednesday, and Friday in the last 5 min of the class. The quiz will consist of two questions on the materials that have been covered in previous classes.

† Exams

Exams consist of 10% conceptual questions to test the understanding of the physical concepts, and 90% problems. No change of grades after being posted.

Recitation Sessions “OPTIONAL”

We will set up time for recitation sessions according to the students’ schedule and the room availability. The recitation session is not mandatory; however it is very important in order to have more practice on solving problem.

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) 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.