

Phys 212 Syllabus

“Physics for Science & Engineering II”

University of Mississippi

June 27 2024 – July 25 2024

Professor

Mrs. Purnima Narayan
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Course Meeting

Monday through Friday
8:00 AM to 9:50 AM
Lewis Hall 101

Office Hours

Lewis Hall, Room 104 (The Tutoring Room), Monday, Wednesday, Friday, 10:00 AM to 11 AM (or by appointment)

Course Description

This course is the second part of a two-semester calculus-based treatment of introductory physics. Topics include electricity, magnetism, electromagnetic waves and optics.

Prerequisites

Physics 211 (or equivalent knowledge with instructor’s permission)

Corequisites

Lab Physics for Science & Engineering II (Physics 222)

Textbook

University Physics Volumes 1,2,3 from OpenStax

This is an open-source textbook that is available for free online from www.openstax.org. If you prefer, you may purchase a printed copy from OpenStax via Amazon. If you choose to do this, be sure to purchase an official version.

Pedagogy

Physics is a fascinating discipline that involves the study of natural phenomena and the underlying principles that govern the universe. Using the models that we seek to build we are able to confidently answer many “simple” questions about nature: Why does a rainbow appear? Why do we see an aurora only in the northern and southern hemispheres?

This course will begin to provide you with the basic tools to pursue the answers to these types of questions, but your mastery of these tools is completely dependent on the effort that you put in to learning how to use them! I suggest the following practices to ensure you get the most value out of this course.

- **Active Participation**– Attendance for this course constitutes 10% of the final grade. I encourage you to attend the class every day since learning and understanding physics requires a strong foundation and continuous engagement. In addition to regular class attendance, I strongly suggest that prior to each lecture, you prepare yourself by reading the relevant sections of the textbook.
- **Take written notes** – I strongly suggest taking notes during the lectures since it facilitates comprehension and retention of the subject. From personal experience, it helps creating a structured record of the topics covered in the class which enables you to identify connections between different concepts, detect patterns, and develop a coherent understanding of the subject matter.
- **Participate in problem solving** – Since Physics is a highly applied science, by solving problems, you get to apply the concepts and principles you have learned to real-world scenarios. The homework problems facilitate this by pushing you to analyze the given information, identify relevant principles, and devise a logical approach to finding a solution. Completed homework assignments will be due at the following class meeting (unless otherwise stated).

Minimum Guaranteed Grades:

A	90.0-100%
B	80.0-89.9%,
C	70.0-79.9%,
D	60.0-69.9%,
F	<59.9%

Grade Architecture:

Attendance	10%
Test1	15%
Test2	15%
Test3	15%
Homework	20%
Final Exam	25%

You are required to attend all of the classes. Attendance grade will be deducted for unexcused class absents and/or not participating in-class activities. Homework problems will be assigned during the class to write on paper with detailed solution, and must be turned in at the beginning of class, in class, on the due date.

Class Schedule

The tentative class schedule will be provided to you during your first class. Tests will be conducted outside of the class. Test and exam hours can be found on the class schedule.

University Policies

We will abide by all university policies including (but not limited to) academic integrity (M Book, Section I), disability accommodation (M Book, Section V), non-discrimination (Ole Miss Policy Number: 10000632), and attendance verification (<http://olemiss.edu/info/gotoclass/>). Academic Misconduct will not be tolerated. Exams will be taken individually and without the use of any unauthorized aids (cheat sheets, the internet, etc.). Although collaboration among students when completing the homework is permitted (and encouraged), each student must turn in their own handwritten assignment and, in good faith, have a complete understanding of the work that they are submitting. The penalties for violating this policy are described in Section I of the M Book and range from a reduction in the offending students' grade, to complete expulsion from the university.

Students seeking a reasonable accommodation to assist with course requirements in the face of a relevant disability should contact The Office of Student Disability Services (662-915-7128 or sds@olemiss.edu) and notify the instructor at the beginning of the course or as soon as an accommodation is approved.

Accommodations for university-approved absences from lecture or absences from lecture resulting from a civic, religious, or personal duty should be discussed with the instructor in advance of the absence. Accommodations for unexpected absences due to illness or other unpreventable personal emergencies should be discussed with the instructor as soon as the student is able. Please do not attend class if you are ill with any symptoms of COVID-19.

Requests for individual make-up exams must be accompanied by a letter (including contact information) from an authority figure (e.g., medical doctor, personal lawyer, superior officer, etc.) deeming the absence on a regularly scheduled test-day necessary. In the case of wedding or funeral attendance, a program (or similar proof of attendance) may be requested.

Intellectual Property

All materials distributed in this course (electronically or in hardcopy) are protected under intellectual copyright. Any attempt to share these materials publicly, by publishing them on the internet or otherwise, or to profit from their use or distribution in any way constitutes theft and will be in violation of intellectual property law and the UM Academic Conduct Code.

Video and/or Audio recording of class lectures is forbidden unless explicit consent is given by the instructor in response to a reasonable accommodation request. Any Video and/or audio recordings of class lectures may not be published or distributed in any way and are to be treated as "materials distributed" as described previously.