

Physics 214 Syllabus

“General Physics II”

University of Mississippi – Summer 2021 – Section I

Professor

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Course Meeting

Monday through Friday
10:00 a.m. to 11:50 a.m.
Lewis Hall 101

Office Hours (Subject to Change)

Lewis Hall Room 104 (The Tutoring Room), Monday through Thursday, 5:00 p.m. to 7:00 p.m. (or by appointment)

Course Description

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

Prerequisites

Physics 213 (or equivalent knowledge with instructor’s permission)

Corequisites

Laboratory Physics II
(Physics 224)

Textbook

College Physics, Serway and Vuille. Eleventh Edition. (See myOleMiss for details.)

Pedagogy

Physics is the discipline which seeks to model the way our universe behaves. Using the models that we build, we are able to confidently answer many “simple” questions about nature: Why is the sky blue? Why doesn’t the moon fall? Why do magnets stick to the fridge? Why can’t we go back in time?

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.

- 1) Attend Class – Although there will be no strict attendance policy, I do expect you to attend class every day. Physics is an extremely broad subject, and attending class is the only way to ensure that you are aware of the specific content that I will emphasize. 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.
- 2) Take Written Notes – Numerous studies suggest that taking handwritten class notes enables us to retain and recall significantly more information than if we take notes on a personal electronic device. This is because writing something down provides a deeper processing of the information [Mueller and Oppenheimer, 2014], and personal electronic devices easily tempt us into recreational, non-academic distractions [Kraushaar and Novak, 2010].
- 3) Complete the Homework – Solving (physics) problems is an acquired skill of which you must demonstrate a mastery when you write your exams. Much like learning to play a sport or musical instrument, you must practice the same way that you want to perform. The homework I assign will provide you with the opportunity for practice.

On the exams you will be asked to look at a problem, develop your own solution from scratch, and have a degree of confidence in that solution. If you only practice understanding solutions collected from the internet, or connecting a problem with its answer “in the back of the book”, then you are not practicing the specific activity that you will be asked to perform on the test.

Minimum Guaranteed Grades:

A	88.0-100%
B	76.0-87.9%,
C	64.0-75.9%,
D	52.0-63.9%,
F	<52.0%

Grade Scheme:

Test 1	20%
Test 2	20%
Test 3	20%
Homework	15%
Final Exam	25%

The (+/-) system may be applied at the instructor's discretion in a manner consistent with the end-of-course grade distribution. Any grade dispute must be accompanied by the graded material in question if it has already been returned to the student.

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), nondiscrimination (Ole Miss Policy Number: 10000632), and COVID-19 protocols.

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, 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 or any other contagious disease.*

Requests for individual make-up exams must be accompanied by a letter (including contact information) from an authority figure (e.g., medical doctor, judge, court clerk, superior officer, etc.) deeming the absence on a regularly scheduled test-day necessary.

The instructor is required to verify students' attendance once at the start of the course as mandated by the federal government for financial aid reasons. See <http://olemiss.edu/info/gotoclass/> for details.

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.

References

Kraushaar, J. M., Novak, D. C. (2010). Examining the affects of student multitasking with laptops during the lecture. *Journal of Information Systems Education*, 21, 241–251.

Mueller, P. A., Oppenheimer, D. M. (2014). The Pen is Mightier than the Keyboard: Advantages of Longhand over Laptop Note Taking. *Psychological Science*, Vol 25, Issue 6, pp. 1159 -1168