#### Syllabus - Summer 2022

### CLASS INFORMATION

Instructor: Dr. John Waite Class time/location: MTWTF 8am - 9:50am CDT Lewis Hall Room 101 Office: Lewis 225 Office Hourse: MWF 10am - 11am Email: jvwaite@olemiss.edu

#### REQUIRED MATERIALS

Textbook: OpenStax University Physics Volume 1 - available for free at

https://openstax.org/details/books/university-physics-volume-1

Online Assignments: WebAssign Access

## Pre/Corequisites

Students enrolled in PHYS 211 must be enrolled in, or passed, MATH 262 OR (MATH 261 and PHYS 201). Students must also be concurrently enrolled in or have passed the lab course Physics 221.

## **Description**/Objectives

This is the first semester of a two-semester sequence in an introductory level engineering physics course. Topics covered in this first semester include motion (linear, circular, rotational, harmonic), forces, energy, fluids, and waves.

- Develop and improve analytical reasoning and problem solving skills. Students will be able to:
  - Analyze problems to reduce them to their fundamentals and determine the related physics concepts.
  - Identify and apply problem solving methods.
- Learn and apply physics concepts. Students will be able to:
  - Describe linear motion observed in everyday life in terms of kinematics and the laws of motion.

- Apply energy and momentum conservation principles and describe the various forms that energy can exist in.
- Describe general oscillatory motion and distinguish simple harmonic motion from other types of oscillatory motion.
- Describe waves and their relation to oscillatory motion.
- Describe certain everyday phenomenon in terms of physics concepts.

### GRADING

The final grade for the course will be determined from the following components with their associated weights:

	Participation	Online Homework	Written Homework	Mid-Terms $(3)$	Final Exam			
	5%	15%	10%	15%;15%;15%	25%			
Letter grades (with $+/-$ ) will be assigned with the following minimum percentages (subject to change):								

Grade	A	A-	B+	В	B-	C+	C	C-	D	F
Minimum	92	88	84	80	76	72	68	64	50	0

You'll notice that it is impossible to get a B if you do not turn in homework. Physics (like anything else) requires practice.

## INCLASS TESTS

There will be three (3) mid-semester tests. The **tentative** dates and chapters covered for each are:

Monday June 6	Tuesday, June 14	Wednesday, June 22
Chapters 1,2,3,4	Chapters 5,6,7,8	Chapters 9,10,11,13

# Homework

Due to the accelerated pace of the summer course, short online homework assignments will be assigned daily. In addition to the online assignments, written assignments will be given approximately twice weekly. These will be due by the beginning of class on the due dates that will be given when the problems are assigned (they will be submitted via email directly to the grader). While the final product of the assignments must be an individual effort, students are encouraged to work together on them. Copying assignments is not only against University policy, it is also unhelpful to achieving mastery of the concepts and will ultimately result in poor performance on tests.

## FINAL EXAM

A comprehensive final exam will be given on Monday, June 27 at 8AM. Any topic covered in lecture has the potential to be on the exam.

# POLICIES

#### ATTENDANCE

- Students are expected to attend all lectures. Students **must** attend within the first few lectures to verify attendance and to qualify for participation credit.
- On test days, absences due to illness (with a doctor's note), university sanctioned activity (with appropriate notification), or unexpected emergencies (with my approval), may be excused and the test may be rescheduled if the student contacts me within 24 hours of the situation.
- Students are responsible for any material covered in lecture, whether they attend or not. Homework and even test problems will often be worked out, in part or in whole, in lecture before they are assigned to the students. Please come.

### HONESTY

- Students are encouraged to work on the homework problems together. This does **not** mean you can copy the work of another student. Discussion and clarification of concepts is what is meant by this encouragement. Copied work will receive a zero grade and any subsequent infraction will result in an F for the course and the potential for further action against the student(s) involved.
- Consult the OleMiss M Book for further clarification on University policies and definitions pertaining to academic dishonesty.

### RESOURCES

- I will hold a homework discussion session the day before written homework assignments are due from 4pm to 5pm. Students may ask questions about problems they are struggling with. Students will be encouraged to work out problems on the board. Please do not come expecting me (or others) to give solutions.
- Grades will be posted on Blackboard as they are assigned. While the grades on Blackboard should be an indicator for how a student is progressing in the course, they are **not** the official grade. I will keep the official grades on my computer and any discrepency between the Blackboard grade and the one on my computer will be overridden by my record.

Week of	Monday	Tuesday	Wednesday	Thursday	Friday
May 30 – June 3	Х	Ch1	Ch2	Ch3	Ch4
June 6 – June 10	Exam 1	Ch5	Ch5/6	Ch6	$\mathrm{Ch6}/\mathrm{7}$
June 13 – June 17	Ch7/8	Exam 2	Ch9	Ch9/10	Ch10/11
June 20 – June 24	Ch11/13	Ch13	Exam 3	Ch15/16	Ch15/16/Review
June 27 – July 1	Final Exam	Х	Х	Х	Х

# TENTATIVE COURSE SCHEDULE