Physics 211

Sections 1 and 4

Section 1: 2:00-2:50 MWF; Section 4: 9:00-9:50 MWF

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Dates and material covered may change as the course progresses and we sync with other sections.

Course Description: First semester introductory physics covering mechanics.
Prerequisites: none **Corequisites:** Phys 221 (laboratory associated with this course), Math 262 (corequisite at a minimum; prior calculus exposure recommended)
Texts: *Physics for Scientists and Engineers*, Serway and Jewitt, 9th Edition
Note: WebAssign required.

Course Objectives:

At the completion of this course, students will be able to:

1. Synthesize information and use mathematical relations to make numerical predictions
2. Improve general problem solving skills
3. Maybe know a bit about how the universe works

Grade Breakdown:

Assignments	20%
Quizzes	10%
Exams 1,2	30%
Exam 3 + Final	40%

Letter Grade Distribution:

		>= 93	A	90 - 93	A-
87 - 90	B+	83 - 87	B	80 - 83	B-
77 - 80	C+	73 - 77	C	70 - 73	C-
60 - 70	D			<= 60	F

These boundaries may be adjusted lower at the professor's discretion.

Course Policies:

- **Grades**
  - Physics can be hard. You shouldn't expect to get every point on every exam problem, but partial credit will be given depending on the progress made and portion correct. Exams will consist of problems of varying difficulty. The easiest will be "plug-and-chug" and not require a deep understanding and represent a C level of knowledge; weekly quizzes will generally be at this level.

Medium problems will require synthesizing multiple relations and represent a B level of knowledge. To expect an A you should not only be able to the above, but also have a deep understanding of the material to avoid pitfalls and where calculus is appropriate, and be able to solve problems different from what you've seen. There will generally be a problem on every exam requiring this level of understanding.

  - Grades will be posted on Blackboard. If you think there is an error, notify me as soon as possible.
  - Raw exam scores, including the final, will be adjusted upward so that the average for sections 1 and 4 together comes out to a target number, usually 80. Not every score will receive the same adjustment, depending on whether the scores are too spread out or too compressed. **The curve of the first exam will be preliminary until after the drop deadline; dropped students don't count toward the average.**

- **Assignments**
  - Assignments are through WebAssign, see above. You may consult other students, Learning Center TAs, or myself, but at the end, you should be the one to complete the problem, and are encouraged to work on your own before getting help. If you don't understand the homework problems you might get credit, but won't like the exam results...
  - Late assignments will not be accepted without a valid excuse.
  - Every so often I will issue a "challenge" problem designed to make you think about the material on a deep level along with the regular homework. These are not mandatory and do not directly impact your grade, but students wanting a challenge and potential physics majors especially are encouraged to try them. Points awarded can be used to offset an incomplete homework from **that week**, but you should still work on the regular assignment in case you don't get full credit on the challenge problem.

- **Exams** You may bring a non-programmable scientific calculator and one 3" X 5" index card with formulas on both sides. Phones must be put away at all times until you have left the room. You may bring a full 8 1/2" X 11" sheet of paper of formulas for the final exam. Bring your student ID for verification when you turn in your exam.

- **Quizzes** Quizzes will occur on Fridays during non-exam weeks for the first **10 minutes** of the period. They will generally consist of one problem on the previous week's material, just to give you feedback above and beyond the automated homework system. If you are doing poorly on quizzes, we should meet to discuss strategies for improvement before exam time. Formulas from the material covered will be provided.

- **Attendance and Absences**
  - Attendance is expected, and Federal policy requires that we verify attendance once during the first two weeks of classes for scholarship purposes. Please see `http://olemiss.edu/gotoclass` for more information. Students are responsible for any material or information presented in lecture.
  - Absences due to severe or contagious illness will be excused, along with other reasonable emergencies. We should plan ahead to reschedule as early as possible. I will require documentation at my discretion, especially after your second flu or if your third grandmother passes.

- **Disabilities** If you have any disability that requires accommodation, please bring it to my attention as soon as possible. Some accommodations will require verification.

Tentative Course Outline:

Week	Content
1 (8/24-8/28)	Chapters 1, 2 (1D Motion)
2 (8/31-9/4)	Chapters 3, 4 (Vectors, 2D Motion)
3 (9/9-9/11)	Chapter 5 (Newton's Laws)
4 (9/14-9/18)	Chapters 6, 7 (Circular Motion, Energy)
5 (9/21-9/25)	Chapter 8: (Conservation of Energy)
6 (9/28-10/2)	9/28: **Exam 1**, Chapters 1-8; Chapter 9 (Momentum)
7 (10/5-10/9)	Chapter 10 (Rotation)
8 (10/12-10/16)	Chapter 11 (Angular Momentum)
9 (10/19-10/23)	Chapter 12 (Statics)
10 (10/26-10/30)	Chapters 13, 14 (Gravity and Fluids)
11 (11/2-11/6)	11/4: **Exam 2**, Chapters 9-14; Chapters 15, 16 (Oscillatory Motion, Wave Motion)
12 (11/9-11/13)	Chapters 17, 18 (Sound Waves, Standing Waves)
13 (11/16-11/20)	Chapters 19, 20 (Temperature, 1st Law of Thermo)
14	Thanksgiving!
15 (11/30-12/4)	Chapters 21, 22 (Gases, Entropy)