

Physics 211: Physics for Scientists and Engineers I (Spring 2015)

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 Lectures: 11:00am - 12:15pm, T TH, HELD Lewis Hall, Room 101 (Auditorium)
 Office Hours: 1:25pm - 2:40pm, T TH and by appointment

Textbooks: "Physics for Scientists and Engineers" 9th Ed. By Serway and Jewett;

Teaching Assistant: TBA

Notes:

1. The grades in this course will be determined by your performance in two term exams (20% each), final exam (40%), homework (10%), attendance (4%), pre-lecture quizzes (2%), in-class quizzes (2%), and bonus problems (2%). The grade ranges are: 90-100 = A; 80-90 = B; 65-80 = C; 50-65 = D.
2. The Final Exam will replace the worst of the two term exams if it is higher than any of them. The final exam grade cannot be used to replace a term exam that was missed.
3. February 3rd is the last day of refund period, and March 3rd is the last day for course withdrawals.
4. Final exam (comprehensive): Tuesday May 5th, 12:00pm-3:00pm. Please note there is no make-up for the final exam.
5. Access and do the homework problem online at <https://www.webassign.net> (see instructions*)

Week/Date	Chapter/Topic	Chapter/Homework
1 Jan 22	Chapters 1 & 2: Dim. analysis, motion in 1d	HW1: Chapters 1 & 2: due Feb 10
2 Jan 27; 29	Chapters 3 & 4: Vectors, motion in 2d	HW2: Chapters 3 & 4: due Feb 17
3 Feb 3; 5	Chapters 5 & 6: Motion laws, circular motion	HW3: Chapters 5 & 6: due Feb 24
4 Feb 10; 12	Chapters 7 & 8: Work, conservation of Energy	HW4: Chapters 7 & 8: due Feb 26
5 Feb 17; 19	Chapters 9 & 10: Many particles, torque	HW5: Chapters 9 & 10: due Mar 3
6 Feb 24; 26	Chapter 11: Ang. momentum Feb 26 TH EXAM I	HW6: Chapters 11 & 12: due Mar 9
7 Mar 3; 5	Chapters 12 & 13: Static equil., gravitation	HW7: Chapters 13 & 14: due Mar 17
8 Mar 10; 12	Spring Break	
9 Mar 17; 19	Chapters 14 & 15: Fluid dynamics, SHM	HW8: Chapters 15 & 16: due Mar 26
10 Mar 24; 26	Chapters 16 & 17: Waves and sound, resonance	HW9: Chapters 17 & 18: due Apr 7
11 Mar 31; Apr 2	Chapters 18 & 19: Resonance, Temp.	HW10: Chapters 19 & 20: due Apr 21
12 Apr 7; 9	Chapter 20: 1st law of Thermo, Apr 9 TH EXAM II	HW11: Chapters 21 & 22: due Apr 28
13 Apr 14; 16	Chapter 21: Kinetic th. of gases	
14 Apr 21; 23	Chapter 22: Entropy, 2 nd law of therm.	
15 Apr 28; 30	Reviews	
16 May 5 th	FINAL EXAM: 12:00 pm- 3:00 pm	

***Online Homework (WebAssign Instruction)**

You must self-enroll, the class key for Phys 211 is: **olemiss 1221 4570**, please supply your entire student Id 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

Do Yourself (and Me) a Favor

Read about the topics before I discuss them in lectures. It is not necessary that you study them carefully, but at least get the “smell of it”. This should make it much easier for you to follow the lectures and that should make them more interesting.

Recitation Sessions “OPTIONAL”

We will set up time (after 5:00 pm) 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 practice solving the homework problems, and enforce the physics concepts.

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 motions of objects and forces, which underlie these motions. The theory that describes the motion of “large mass” objects, which move with low speed compared to the speed of light, was developed by Isaac Newton in the 17th century and is called “classical mechanics”. Historically, this theory gave a foundation for development of all modern physics. Therefore, this course is an introduction to physics in general. Physics in turn provides a foundation for most other natural sciences and engineering. This course has several rather broad goals. They include that you develop a good understanding of a few important concepts in physics, learn to apply these concepts to familiar and unfamiliar situations, and gain the ability to reason qualitatively and quantitatively about physics.