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Physics 81
Space and Time, Space and Matter

- **Where:** Thaw 104
- **When:** 11:00 am -12:15 pm, Tuesday and Thursday
- **Textbook:** “Physics: Concepts and Connections ” (5th Edition), Hobson (ISBN: 9780321661135) , Publisher: Pearson
- **Homework:** Several on-line problems assigned every week. The homework will be due approximately one week after problems become open. Late homework will be docked 10% per day.
- **Mid Terms:** There will be two 1.25 hour long mid-terms given during the semester.
- **Final:** The final is cumulative.
- **Grade Breakdown:**
 - 2 Mid Term Exams = 50% (25% each)
 - Weekly Homework = 15%
 - Cumulative Final Exam = 35%
- **Office Hours:** Tuesday and Wednesday 1:30-2:30pm. However, if my door is open and I’m not in the middle of something I’ll be glad to talk to you. One could also setup an appointment if needed.
- **Website:** Standard Courseweb site (2151-PHYS-0081 SEC 1140): At this site you’ll find all class materials – homework assignment link, exam dates, topic for lecture period, and anything else I think may be useful.

Course Objectives:

Students successfully completing this course will be able to :

- Describe what physics is, what natural phenomena are explained by the science of physics, and what physicists study.
- Describe current topics in Particle Physics and Cosmology and the experimental devices used to study them.
- Identify the basic physical laws of nature.
- Understand the scientific method and explain where scientific knowledge comes from.
- Describe Newtons's laws of motion and gravity.
- Outline the atomic theory of matter.
- Describe the nature of energy and the laws of thermodynamics.
- Describe the nature of light, electricity, and magnetism.
- Outline relativity and quantum theory.
- Explain the structure of matter based on fundamental building blocks.
- Apply the fundamental laws and principles of physics to simple problems.

Approximate Class Schedule
(The midterm dates are FIXED):

WEEK	TOPIC
August 26,28	Chapter 1
September 2,4	Chapter 2-3
September 9,11	Chapter 3-4
September 16,18	Chapter 4-5
September 23,25	Chapter 5-6
Sept. 30 – Oct. 2	<i>1st Exam</i> (Oct. 2) Chapter 6
October 7,9	Chapter 7-8
October x,16	Chapter 8-9
October 21,23	Chapter 9-10
October 28,30	Chapter 10-11
November 4,6	Chapter 11-12
November 11,13	<i>2nd Exam</i> (Nov. 13) Chapter 12
November 18,20	Chapter 13-14
November 25,x	Chapter 14-15
December 2,4	Chapter 17
December 8-13	Finals Week (Specific Day/Time TBA)

Course Policies:

- **Academic Integrity:**

Students in this course will be expected to comply with University of Pittsburgh's Policy on Academic Integrity. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators.

- **Disabilities:**

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services (DRS), 140 William Pitt Union, (412) 648-7890, drsrecep@pitt.edu, (412)228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course

- **Statement on Classroom Recording:**

To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the students own private use.