COLORADO STATE UNIVERSITY
DEPARTMENT OF PHYSICS

PH 110 – Descriptive Physics
Fall Semester 2012
Course Syllabus

Instructor: Prof. Norm Buchanan
Office: Engineering D119
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Textbook: Conceptual Physics (11th Edition), Paul G. Hewitt

Lectures: Monday, Wednesday, and Friday 11:00-11:50 am
Engineering Room 100

Office Hours: 1:00 – 2:00 PM Monday and Tuesday *starting the second week of the semester*, or by appointment.

Prerequisites: None.

Schedule:

Midterm 1:	Wed., Sept. 26, 2012	11:00-11:50 AM	Engineering 100
Midterm 2:	Wed.., Nov. 7, 2012	11:00-11:50 AM	Engineering 100
Final Exam:	Tue., Dec. 11, 2012	2:00-4:00 PM	TBA

Grading:

Midterm Exam 1	200 points
Midterm Exam 2	250 points
Homework	250 points
Final Exam	300 points
Total	**1000 points**

Letter Grades:

A+ >899 pts, A 850-899 pts, A- 800-849 pts, B+ 750-799 pts, B 700-749 pts, B- 650-699 pts, C+ 600-649 pts, C 550-599 pts, D 500-549 pts, F 0-499 pts.
I reserve the right to lower the threshold for any grade range.

Course Description:

This course will provide a conceptual introduction to physics with many examples of how physics relates to our everyday lives. This course is for non-scientists or for beginning scientists. It will focus on conceptual understanding rather than a rigorous mathematical treatment of the various topics. Some basic algebra and graphical analysis will be used. Advanced mathematics such as calculus or trigonometry is not required for this course. Topics covered will include:

- **Mechanics:** falling objects, projectile motion Newton's laws of motion, circular and satellite motion.
- **Properties of Matter:** Atomic structure of matter, solids, liquids and gases
- **Electricity and Magnetism:** electrostatics, currents, magnets and electromagnetic induction

- **Light:** properties of light, color, reflection and refraction
- **Atomic and Nuclear Physics:** atoms and the quantum, radioactivity, fission and fusion
- **Relativity:** special and general theories of relativity
- **Other Selected Topics** (time permitting)

Homework:

Homework problems will be assigned weekly, with 10-15 problems per assignment. Only selected homework problems will be graded, and the problems that are graded will be determined randomly. I will personally mark at least one problem per assignment so I can follow your progress. The class grader will mark some number of the remaining problems. For each assignment, one point will be awarded for each problem that was attempted, even if it wasn't graded.

Assignments are due at 5:00 PM on the due date and must be submitted into the white boxes labeled "PH 110" on the 2nd floor of the Engineering building nearest to the E-wing. *Late assignments will be penalized.*

Attendance:

Attendance is expected and while attendance will not be taken, electronically or otherwise, being present for the lectures will greatly benefit the student. You are responsible for all materials presented in class and for making arrangements to catch up on any missed course work. Although PDF versions of the lectures will be posted to the RamCT Blackboard site following the lectures, there will be demonstrations and examples given in class that will not be available outside of class.

Class RamCT Blackboard Site:

Assignments will be posted on RamCT Blackboard after they are announced in class. Course grades will also be posted on RamCT Blackboard. You are welcome to email me with questions at any time.

Time Commitments and Preparation Expectations:

Students should expect to spend at least three hours outside of class for every hour in class reviewing lecture materials, reading, and homework assignments.

Examinations:

Exams will cover materials presented in the class lectures, from the textbook, and homework assignments. The second midterm will cover material given between the first midterm and the second. The final examination will be cumulative with emphasis on material covered following the second midterm.

Calculators are allowed. Laptop computers, cell phones, or any other electronic devices are not allowed. Exams will be closed book and I will provide any equations or other required information on the examination question sheet.
If you have any conflicts with the examinations, please bring these to my attention as soon as possible.

Academic Integrity and Honor Pledge:

This course will adhere to the Academic Integrity Policy of the Colorado State University General Catalog and the Student Conduct Code.

On the first page of any material you submit for grading in this course, you have the opportunity to write the following honor pledge:

I have not given, received, or used any unauthorized assistance in completing this problem set/exam.

Your signature after this pledge is a positive affirmation that you have abided by the Academic Integrity Policy given in this syllabus, in the Colorado State University General Catalog, and in the Student Conduct Code.

The Academic Integrity Policy of the Colorado State University General Catalog may be found on page 7 at the following web site:
http://www.catalog.colostate.edu/FrontPDF/1.6POLICIES1112f.pdf.

The Colorado State University Student Conduct Code can be found at:
http://www.conflictresolution.colostate.edu/conduct-code.

Cheating, plagiarism, or copying will result in a grade of zero on the assignment or exam in question and may lead to further disciplinary action including but not limited to a failing grade in the course.