

**SYLLABUS FOR PHYSICS 111 Spring, 2009**  
**ALL PHYSICS LABS, RECITATIONS AND THE SUCCESS CENTER**  
**WILL BEGIN MONDAY, JANUARY 12**

Instructor: Dr. Carol L. Strong  
Office: Optics Building, Rm 238  
Office hours: MWF 1:15-2:30pm  
TR 2:00-4:00pm  
or by appointment  
Email: [strongc@uah.edu](mailto:strongc@uah.edu)  
(Please do not use the ANGEL email to contact me.)

Office phone: 824-2832  
(Do not call me at home!)

Class hours: MWF 2:55-3:50pm,  
MSC100

Grader/TA's are available in the Physics Success Center, Optics Building 2<sup>nd</sup> floor, Rm253/Commons Area.

Center hours are: MTWRF 9am-5pm, except T from 2-4pm

**Text: "Fundamentals of Physics, Volume 1" or "Extended", 8th edition (Volume 1 will be used in PH111, 112 and 113; Volume 2 will be used in PH112 and 113; Extended covers all three courses.)**

**On-Line Homework: Wiley's e-Grade Plus**

Section -01 <http://edugen.wiley.com/edugen/class/cls88181/>

**Required during class sessions:**

InterWrite PRS<sup>RF</sup> (Personal Response System) Remote, rent from bookstore  
Approved calculator (see ANGEL website)

This course covers the basics of particle motion called Newtonian mechanics. The concepts in this course tend to be less abstract than the two follow-on courses PH112 and PH113. Topics include linear motion of particles in one, two and three dimensions under the influence of gravitational forces and other applied forces, rotational motion of particles, work, energy, floating, motion of fluids, and simple harmonic motion. Students are required to have skills in algebra, geometry, trigonometry and basic differential and integral calculus and to have basic problem solving skills. Students are expected to become familiar with the language used by physicists, vector notations and the units of physics and to gain problem solving expertise with the formulations physicists use to describe the mechanical world.

**GRADING POLICY:**

Course grade will be computed as follows:

Homework	10%
Test #1	20%
Test #2	20%
Test #3	20%
Final	25%
PRS Quizzes	5%
Attendance/Participation - extra credit	

Letter grades will be assigned as follows:

90 - 100	A
80 - <90	B
70 - <80	C
65 - <70	D
below 65	F

**Note the inequalities!**

**HOMEWORK:** Homework assignment due dates are listed on the ANGEL Calendar for this course found at: <https://angel.uah.edu/frames.aspx>. Assignments are worked online with WileyPlus at: <http://edugen.wiley.com/edugen/class/cls88181/>. All assignments must be submitted on-line by 11pm on the due date. Late submissions may be made on-line, but I won't accept the late submission without discussion with you. Assignments are taken from the "Problems" section at the end of each chapter. Lectures will be easier to understand and homework easier to complete if you **read each chapter before I begin lecturing** about it and begin working on the assignments as soon as possible afterward. On-line homework instructions are available on your ANGEL site.

**ASSIGNMENT SCHEDULE:** The assignment, exam, quiz and lecture schedule can be found on the ANGEL Calendar for this course. You can create a printout of this calendar by doing the following. Log on to ANGEL, click PH111, click Calendar, next to "Format" click List. Fill in the dates for the semester. Highlight the results that you wish to print and do CTRL-P, Selection.

**HOMEWORK GRADING:** Each homework problem will be graded automatically by WileyPlus. Scores and submission times will be transmitted automatically to my grade book. Each correct problem will be given 1 point. You must submit your own work even though you are encouraged to study together.

**SOLUTION SETS:** After the homework due date, solutions to homework assignments will be available on ANGEL as .pdf files for you to view or print. Sample Exams, Sample Exam solutions and Exam solutions will also be posted on ANGEL.

**EXAMS:** Equation sheets will be supplied on exams just as they appear on Sample Exams. Multiple-choice exams will reflect homework, derivations and problems from class, and Sample problems in the text. Sample exams will be provided on ANGEL for you to practice. Exam grades may be scaled to give a class average of 75%. **No early exams. Notification of absence for an exam must be made within 24 hours of exam time.** Makeup exams are normally given on the Monday following the Friday exams, so **you must leave your name and a phone number on my answering machine, 824-2832**, where you may be reached so that I may schedule a makeup for you. Makeup exams, which may be **oral or more difficult**, will only be given for absences **with an appropriate written excuse**. Exams will be returned in class at the **next class period** or may be picked up in my office at a later date.

**CALCULATORS THAT SOLVE EQUATIONS or PERFORM INTEGRALS WILL NOT BE ALLOWED DURING EXAMS.** Acceptable example calculators are shown on your ANGEL site.

**ATTENDANCE:** It is YOUR RESPONSIBILITY to keep up with class lectures and announcements. Refer to class notes stored on ANGEL for any class session that you missed. Changes in homework assignments and exam dates, although unlikely, do occur. Homework assignment changes will be noted on the WileyPlus website; exam date changes will be noted on the ANGEL calendar. Extra credit lecture questions may be given randomly.

**QUIZZES:** Quizzes will be given randomly using the PRS system. Each quiz question will be worth 1 point. Enough questions will be given throughout the semester to give you the opportunity for a perfect score of 30. Any extra questions that you answer correctly will be used as bonus credit.

**GRADE STATUS:** I will post your grades on ANGEL within a few days after each exam so that you may check your status in the course. Be sure to let me know immediately if your exam, quiz and/or homework grades have been recorded incorrectly. Instructions for student access to ANGEL are on the website's homepage.

**CELL PHONES / LATE TO CLASS:** No cell phone usage in class! If a phone goes off during lecture, the owner must sing for the class. If the owner will not sing, I will leave class and the class is responsible for any material that I might have covered. If a phone goes off during an exam, the owner will be asked to leave the exam. If you are late to class, please enter through the upstairs doors only. For every person entering through the downstairs door after lecture begins, one problem will be added to the class homework assignment.

**COMPLAINT PROCEDURE:** If you have difficulties or complaints related to this course, your first action usually should be to discuss them with me, the instructor. If such a discussion would be uncomfortable for you or fails to resolve your difficulties, you should contact Professor James Miller, Chair of the Department of Physics. Professor Miller's office is OB 201 B and his telephone number is 824-2482. If you still are unsatisfied, you should discuss the matter with the Dr. Daniel Rochowiak, Associate Dean of the College of Science. Dean Rochowiak's office and telephone number are MSB C206 and 824-6605.

## KNOW YOUR INSTRUCTOR



Dr. Carol L. Strong has an A.S. from Pensacola Junior College, a B.A. in Mathematics and a B.S. in Physics from the University of West Florida, and an M.S. and Ph.D. in Physics from the University of Alabama in Huntsville. Her specialty is applied optics, particularly optical sensors. She worked for three years at Northrop Corporation's Electro-Mechanical Division in Anaheim, CA, modeling and testing sensors. Her graduate dissertation project was the development of a fiber-optical sensor that measured current flow in an auroral plasma.

Dr. Strong's other academic interests include astronomy and inquiry-based science education. She has lately been teaching Introductory Physics with Calculus I & II, Intermediate Electricity and Magnetism I & II, Intermediate Mechanics, Frontiers in Science, and Electronics. She has taught many of the other undergraduate courses. Her teaching methods have won her recognition by students and faculty alike. Her awards include the Foundation Award for Distinguished Teaching, 1999, the SGA Freshman Professor of the Year Award, 1996, 2002, 2003, 2004 and 2006 and two honors from Alpha Lambda Delta. (She missed SGA's 2005 award due to brain surgery!) She was nominated twice to represent UAH in a state and nationwide contest for U.S. Professor of the Year.

After normal hours, Dr. Strong keeps busy giving lectures at the Von Braun Astronomical Society's planetarium, doing "gee whiz" physics demonstrations for grade school students and offering professional development for K-12 teachers in science. If that's not enough, you'll also find her SCUBA diving, snorkeling, walking her very demanding dog and, for fun, making contemporary quilts and teaching quilting both locally and nationally.