GENERAL INFORMATION FOR PHYSICS 220 Lab
COLLEGE PHYSICS
Fall 2009

PHYS 220 GENERAL PHYSICS II Lab

Prerequisites: Trigonometry (MATH 130 Skyline) and satisfactory completion of General Physics I (PHYS 210, or equivalent, with a grade of C or better).

The physics of magnetism, electricity, light. Modern developments in physics.

Lab session must be accompanied by a lecture.

Transfer: UC; CSU (B1, B3). CAN PHYS 4. PHYS 210 + PHYS 220 = CAN PHYS SEQ A.

Lab Session Hours: Tuesday 2:10 - 5:15, Room 7-7305

INSTRUCTOR

Prof. G. Grist

Office: 7-7320

Office hours: T Th 11:00 - 12:00 or by appointment

e-mail: gristg@smccd.edu

Webpage: http://www.smccd.net/accounts/gristg/

INFORMATION AS TO THE LABORATORY PORTION OF THE COURSE

Grading

The course is divided into a lecture portion and a lab portion. The lab grade will be based on the following division: 50% weight given to lab assignments and 50% weight to the lab final. I will turn in a "percent of total" for your lab grade to the lecture instructor and then the lecture instructor will determine how your lab grade is weighted into your overall course grade. I will drop everyone's lowest lab score (*see the section on attendance below*).

Each lab is worth from 10 to 20 lab points based on the complexity of the lab assignment and whether it is a formal report. Labs will be graded on a scale from 5 (Excellent and insightful) to 1 (Poor) and then assigned lab points relative to this. Thus a 15 point lab graded a '4' would earn 12 lab points.

At the end of the semester I will calculate the average of your lab assignments based on a total of possible points, less 10 points. This gives you a 10 point buffer in case you miss a lab. If you happen to miss a formal lab, see me for a substitute report assignment. This can only be done once per semester.

General Lab Procedures

There will be a lab exercise every week, with the final lab period reserved for the lab final exam. Labs instructions are in the Lab Reader available in the college bookstore. Be sure you read each lab before coming to class, so that you have a clear idea of what we will be doing; I may give a pop quiz on the lab. Please be in your seat at the time lab starts. If you arrive late, please enter quietly. If you are more than 5 minutes late for lab you will not be allowed to participate in that weeks lab at my discretion. Due to time and space constraints there are no make ups.

I will be keeping track of your lab work as I walk around the class. You will not be penalized for things you do wrong (as long as you correct them) but failure to follow regulations, leaving your work area in a mess, or goofing off will result in penalties to your grade.

Most labs include a results sheet where you will record your data, answer questions, show your results and analysis, make comments/observations, and write a short conclusion. For some labs you must have me review and initial your lab data before starting the data analysis. A results sheet that requires my review that is missing my initials when you have started the data analysis will be penalized 20% of the grade. These sheets are due at the end of your lab section before you leave and generally represent a 10 point lab.

Lab reports

There will be a few labs selected that I will have you write a 1-2 page report. This serves two purposes: one is to give you an opportunity to do some technical or scientific style writing, the second is to give you an opportunity to think more deeply about the lab, discuss it with others and maybe even look up some additional information! I have a lab report outline that you will follow (see my website) that will simplify what you must do, and will keep the grading fair and consistent. Reports not following the outline will not be graded, so be sure to follow the outline. Ask questions if you are unsure what is required and be sure to start on your report early. Waiting to the last minute typically prevents you from doing your best work.

Lab reports are due at the beginning of your lab section of the week following the exercise. Labs handed in after the beginning of the period will be counted as late. Reports handed in late will lose 25% per day, and be worth zero points after four days. If you do have a late lab, be sure to have your lab checked off, even if for no points, so that you do not accrue a missed lab (*see the section on attendance below*).

Lab reports are to be done individually even if the experiment itself is done in groups. I realize that you will be consulting each other on the data analysis, but you must do the work yourself. Any work that I consider not to be uniquely yours will receive a grade of zero.

Final Exam

The lab final will be a practical exam, testing you on the lab assignments given during the semester. It will be an open note exam, so keep good records of what you do during the semester; you may want to keep a lab notebook. The Final exam is scheduled during the last lab session.

Papers:

Student work, such as labs and exams, will generally be handed back within a week. If you miss when I hand your work back (i.e. absent, late) it is up to you to come to my office and claim it. I am not responsible for papers that are unclaimed after 10 days and they may be shredded for your privacy and my sanity!

Attendance

Attendance is mandatory, as is turning in your work. You will be held to this policy without exception. Do not expect me to contact or notify you about your missing labs. You need to keep track of this yourself, ask if you are unsure.

If you miss a lab, you will get a zero as the grade for that lab. Recall that there is a 10 point buffer, so that allows you one absence with little to no penalty.

If you miss a second lab, you will be stuck with a zero for that lab, which will of course lower you lab grade.

If you miss a third lab, you can not pass the course. If you do not drop, you will be given a grade of F for the course from the lecture instructor.

Alternate Attendance: If you know in advance that you will be absent, contact me with as much notice as possible. Contingent on timing, and availability of space, you may be able to attend a different lab section that week.

Group Work: I encourage working together with other students. However be sure to create your own work product. Direct copying of assignments is not permitted, and is considered plagiarism, a violation of scholastic standards. If you receive or give help on an examination you will receive a grade of zero. All such cases will be referred to the Dean.

Special Arrangements: If you have a verifiable condition that will make it difficult to complete the course without special arrangements, please notify me as soon as possible.

TENTATIVE SCHEDULE Fall 2009

Week Beginning Monday	**Laboratory Topic**	**Relevant Chapter Serway 8th ed.**
17-Aug	No Lab \ Consultation	
24-Aug	Introduction, and Review of Excel and Data Analysis	
31-Aug	Electrostatics	15
7-Sep	Simple Circuits	16
14-Sep	Ohm's Law	17
21-Sep	Current in Series and Parallel Circuits	17
28-Sep	Kirchhoff's Rules	18
5-Oct	RC Circuits	18
12-Oct	The Oscilloscope and the EKG	17
19-Oct	Magnetism	19
26-Oct	e/m	19
2-Nov	Induction	20
9-Nov	Polarization	24
16-Nov	Snell's Law	22
23-Nov	Focal Length	23
30-Nov	Diffraction	24
7-Dec	**Lab Exam**	