

PHYSICS 133 - Intermediate Laboratory

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Course website: Office hours, contact information, assignments, and other important information will be available on the course website: <http://dave.ucsc.edu/physics133>.

TAs: Matthew Brunner and Michael Griffo (see web site for details)

Books: Physics 133 Laboratory Manual; Bound lab notebook (this is required); *A Practical Guide to Data Analysis for Physical Science Students* by Louis Lyons

Required work: Three laboratory experiments completed on time (see below) and a properly maintained laboratory notebook turned in on time (20% of grade); three laboratory reports (20% of grade each) turned in on time; two homework assignments (10% of grade each) turned in on time; attendance at all required lectures.

Writing requirement: Writing skills will be important no matter what career you choose. Hence, it is important that you practice expressing your ideas by writing well. Part of your grade in this course will depend on how well you write. I will expect clearly and properly written reports. You should target your reports for an audience of your peers. They know some physics but may have not taken this course. Your reports should contain enough detail so that your experiments could be reproduced. Your lab manuals must also be written well, though not in a polished manner, and contain enough information so that *all* details of the experiment are clear. We will discuss this further in the lectures.

Instructions for the experiments: Enough information is given to do the experiments, but not everything is explained in complete detail. This is by design. You should be learning how to do experiments, not just follow instructions. If you run into trouble or have questions, your instructor and teaching assistants will be happy to help. You can also research points on your own and consult with your fellow students. These are all natural routes for successful research.

Lectures: We will hold lectures on data analysis and safety at times announced on the website. You must attend these required lectures.

Instructor availability: I will try to be in the laboratory room part of the time during each session. I will also hold office hours set during our meeting. If I am away or have other conflicts, I will let you know in advance. It is important that you ask me questions. If you don't, I might assume all is well.

Deadlines: These deadlines will be strict, so plan ahead. You can always finish earlier. Talk to me before if there is a very good reason for not meeting a deadline. Otherwise, your grade on the late assignment and your evaluation will reflect that it was late. We will have the following deadlines: January 23, 4pm - first homework assignment; January 30, 4pm - second homework assignment; February 6, 4pm - first laboratory report; February 27, 4pm - second laboratory report; March 20, noon - third laboratory report and lab book. No work will be accepted after noon on March 20, the last day of the quarter.

Sections and experiments You must work on Tuesday and Thursday *or* Wednesday and Friday, according to the section you enrolled in. You must sign up for the experiments with your chosen partner prior to doing the experiments. The experiments will be done in three week blocks.