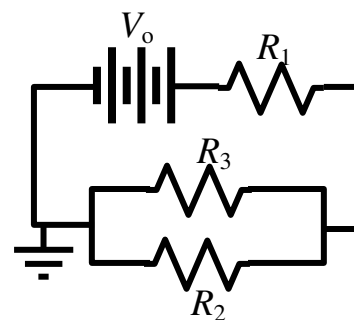


Analytical Physics II Laboratory

(Phys 126)

Spring 2009

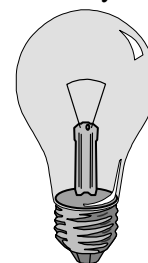


What am I doing here? In this lab, we will be doing experiments to learn about electricity, magnetism, waves, and light. In addition to understanding the underlying physics of each experiment, we also want you to become familiar with some of the *methods* and *equipment* used for scientific investigation of these phenomena. Also, as a continuation of your progress in Analytical Physics I Lab, you should become more accustomed to the limitations and uncertainties associated with scientific measurement. Finally, you should continue to develop your written communication skills so that you can present your work in a clear, orderly, and understandable way.

Part of the intent of laboratory is that it is “discovery based learning”. Learning will sometimes include trial and error, and you will not always know what the results will be ahead of time. You should take advantage of this opportunity to *investigate*, instead of merely going through the steps in the lab manual.

How will I be graded? As with Analyt I Lab, your grade is relatively independent of how well your lab results match the “predicted” results. Instead, your grade will be determined by:

Lab Quizzes (weekly):	25%
Weekly Assignments (abstracts, etc.):	50%
Lab Notebook:	15%
Participation (tardiness, effort, neatness)	10%
	<hr/>
	100%



Is there really a quiz every week? Yes. Quizzes are intended to insure whether you have *read and understood* the appropriate sections of the lab manual before coming to lab.

Why all the abstracts? Besides building character, writing abstracts will give you a professional edge when you finally leave college. For any of you who find employment in science, whether in physics, chemistry, biology, engineering, etc., you will find that recognition and promotion are based to an astonishing degree on how well you can communicate the work you do. The grade for each abstract will be based on whether you include the appropriate material, whether you can express yourself clearly and succinctly, and whether you use correct grammar and correct spelling.

Although the experiments will be performed with partners, each student must submit a unique abstract (or other weekly assignment). Assignments are due at the beginning of the next lab session. Late work will lose 20% per day. Lab reports handed in more than one week late **will not be accepted** (please see me if you have an emergency situation).

Sometimes, a weekly assignment will include your response to questions posed in the lab manual. It is expected that your answers will always, as a first step, summarize the question itself. It should go without saying that answers should be complete English sentences. You should also be aware that many of these questions require quantitative, symbolic analysis rather than mere opinion or hand-waving.