

PHYS 152L
GENERAL PHYSICS LAB
Course Syllabus, Spring 2012
University of Nevada, Reno

Instructor: Prachi Bhide

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Lab sections: 1. Wednesdays 1pm – 3pm

2. Wednesdays 5pm – 7pm

3. Thursdays 1pm – 3pm

Office: LP 222

Office Hours: Wednesdays 11am – 12pm.

Lab directions: Directions for each lab are available online at
<http://physics.unr.edu/LabsSpring.html>

Course Description: The purpose of the physics laboratory is to allow student to witness the concepts and physical laws that are introduced in lecture. You will also be exposed to elementary laboratory techniques. Every class will have a short lecture introducing the procedures, concepts, formulas and instructions relevant to the experiment. The lecture will also cover what is expected from you and how to write-up your lab-report, please don't be late. Attendance and participation is expected. Experiments will be performed in groups however final lab-reports have to be written-up individually.

Course Requirements:

Lab reports: There will be 11 lab experiments during the semester. Only 10 of the 11 labs will be graded allowing the student to drop their lowest grade. A lab report is due the following class period at the beginning of each class and has a grace time of 24 hours. Each student will turn in an individual report. 10 points will be deducted for late lab report. Lab reports that contain copied or plagiarized material will be given a zero. Typewritten lab reports are preferred, neatly hand-written lab reports are also accepted. Illegible lab reports are unacceptable. You can turn in graphs on graph paper or printed out. Hand-drawn graphs on anything other than graph papers are unacceptable. Please follow the given format for the lab write-ups. This format can be found at the lab manual website.

Attendance: You are required to attend all the classes. If you must miss a lab due to an excused absence (illness, emergency or pre-arranged absence), you should arrange to make up the lab during a different lab session that week (the week of your absence). You should contact both instructors before attending another lab section. No more than two labs can be done in other lab sections. By department rules, if you miss three or more classes you will receive a failing grade for the lab section. There is no way to make up the labs. Lab reports that are turned in for experiments which you did not attend/perform will not be graded. You are expected to be to class on time.

Laboratory safety: Experimental work can expose one to various kinds of hazards (electric shock, burns, cuts...), every person working in the laboratory should be situational aware of their surroundings so as to avoid possible injury. Be aware and reduce the risk of injury and/or damaging the equipment. Report any accident immediately.

Any student wishing to apply for academic accommodations or adjustments is requested to inform the instructor, or contact the Disability Resource Center (DRC, Thompson, Suite 101, phone 784-6000) directly, as soon as possible to arrange appropriate actions. The DRC will be able to answer any questions regarding accommodations or adjustments

Lab Report Format

Name:

Lab Partners Name:

Lab Section:

Date of Experiment:

Title of the Experiment

(Name of the experiment as indicated in lab hand-out. 1 point)

Abstract: A concise statement (4-5 sentences) that summarizes the objective and states the numerical results of the experiment.

Theory: Summarize, in your own words, the theory of the physics involved in the experiment. Also present the working equations and the units.

Data: An orderly display of the data, preferably in tabular form. You must include the original data sheet. All entries should be clearly identified and include their proper units.

Analysis: Must clearly show the computations used to reduce the data. First write the relevant equations then give a sample calculation. Be sure to include proper units and use the correct number of significant figures.

Results and Conclusion: A brief summary of your results, stating the determined value or law, along with its numerical uncertainty. Use proper units and significant figures. Use power of ten (scientific notation) for a large or small number (e.g. 1.5×10^{-3} rather than 0.0015).

Questions: Answer the question given in between and/or at the end of the lab procedure.

Discuss what you found and compare with what you had expected to find. Discuss any discrepancies. One may suggest ways in which to improve the experiment or reduce errors. Some labs may include questions, you can write at the end of results.

Note: Extra points for presentation and neatness.