

Physics 121L
Fall 2009

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Office Hours: Mon 10-12, Wed 10-11, Fri 10-11 and 2-3

Laboratory Manual: Physics 121L/131L Laboratory Manual can be bought at the Book Store.

Grading:

Weekly Reports (8 labs)	50%
Two Quizzes	50%

Weekly Reports: The format of the weekly report will vary from week to week, and will be due at the end of the laboratory period. The reports will be written up on notebook paper, and, when appropriate, graph paper. Be sure that you bring the proper type of paper(s) to lab on the day of the experiment. Every student will turn in his/her own report. The contents of the weekly report will depend on the experiment and will be discussed at the beginning of the lab period.

The weekly report will vary from week to week, but in general should consist of a few pages containing the most important aspects of the experiment. These will include:

- a) All data (units and an estimate of the uncertainty)
- b) Any graphs that are required
- c) Any calculations that are required
- d) Answers to any questions that are assigned

The weekly report can be turned in on regular paper and graph paper. (i.e. it is not necessary to use a lab book)

There will be two quizzes during the quarter. The first one will be week 6, before experiment on Conserved Quantities. The second quiz will be given during week 10, make-up week. For the first quiz, BE SURE TO ARRIVE TO CLASS ON TIME, SINCE THE QUIZ BEGINS AT THE START OF THE CLASS AND LASTS ONLY 45 MINUTES)!!

Goals and Expectations of the Laboratory Course:

A variety of quantitative laboratory skills will be taught during the course. Below is a list of some of the skills that you will be learning and improving. These are some of the things that I will be looking at when I evaluate your reports. Different experiments will emphasize different points.

1. Data Taking:

Be sure that you take all the relevant data, and that it is presented in a neat manner. That is, it is easy for someone else to understand what you did. Be sure all your data, and any derived quantities or uncertainties have the proper units. Be sure your data has the correct number of significant figures. Also, for every measurement that is made, a rough idea of the uncertainty of the measurement.

2. Graphing:

Be sure your axes are labeled properly, and be sure that the axis have appropriate scales.

3. Thinking Physics (synthesizing the data)

You will be asked to determine what laws of physics (if any) are being demonstrated, or what is the significance of the experiment.

The laboratory should be an enjoyable experience in which you learn how do use some new equipment, learn some data analysis skills, see that physics is really fun, and make some new friends.