PH 203 & PH 204

Laboratory Format

Lab reports will normally be due one week following the lab. The object of a lab report is to demonstrate that you have done the experiment correctly, that you understand what you are doing and can communicate the results. It is not necessary to write long, detailed explanations of the procedures, data analysis, etc. Normally, the text part of your lab report should be about two type written double spaced pages (or their hand written equivalent) any graphs, figures or tables will be in addition.

I expect that lab reports will be in English, with complete sentences and words spelled correctly. **Do not copy** statements from your lab book.

N.B. IF I CANNOT READ WHAT YOU HAVE WRITTEN, IT IS NOT THERE!

Name: Your name and the names of your lab partners should be on the front page.

Title: Clearly write out the title of the experiment.

Purpose: Write a brief paragraph or sentence that describes the objective(s) of the experiment.

Theory: Discuss the major concepts and the important equations that must be used to understand the experiment.

Procedure: Briefly describe how the experiment was performed. This description should be in your own words. Be sure to include a labeled diagram of the apparatus.

Data/Observations: The data will normally be in tabular form. Include estimates of the error when you record measurements.

Calculations/Results: At least one typical calculation should be shown completely worked out for each equation. Others may be carried out on scratch paper and the results noted on the formal report.

Graphs: If graphs are required, they must be on a full page of paper. Graphs must be on graph paper; however, computer generated graphs on plain paper are acceptable if the data are accurately placed. Common omissions that will cost points: title, axes labels, units.

Discussion of the Results and Conclusions: Here is where you have the greatest opportunity to show your originality and understanding. You should summarize the specific results of your experiment. State whether or not the experiment agrees with the theoretical expectation, and if it disagrees or agrees only marginally, a discussion of the possible sources or error and suggestions for the improvement of the experiment or of the theory should be included.

Answers to assigned questions: Questions appropriate to the lab may be assigned. The answers should be discussed in your conclusion.