

Lab Report Format
PHYS221/222
Summer 2021

LAB REPORTS SHOULD BE TYPED (sample calculations can be neatly printed)

Title page: Experiment Name/Your name/Lab Partner:

Abstract: (15 points) defined in dictionary as a *'summary of points...'*

Your abstract should be a concise statement of the major points of your experiment. It should include the following-

Objective/statement of experimental methods (i.e., mention equipment and how it was used- one or two sentences only)/primary results and any statement elaborating on the results/primary sources of uncertainty

Results presentation: (10 points) The results should be placed in one concise form (e.g., a table or chart). Results should always have uncertainties when applicable. Your lab instructor should not have to look for your results. *You should always calculate % error and % difference whenever relevant* and present with results.

Sample calculations/Graphs: (20 points)

Sample calculations-You should show one type of each different kind of calculation used to arrive at your results(e.g., a density calculation). *Do not show % error or % difference calculations.*

Graphs can be put before the *data section* of the lab report (or sometimes in the *results section*). You should always explicitly state (somewhere in your report) any specific relevant results obtained from your graph (e.g, the slope of the equation of a line). Graphs should be fully labeled. See lab manual.

Discussion of Results: (25 points) You should explicitly summarize your experimental objectives and discuss whether they were accomplished, You are to discuss your results in the context of the main theoretical principles. If your objectives were not met you should discuss why. You should always discuss sources of uncertainties and errors. Any suggestions on how to improve the lab should be placed here.

Please note that occasionally you will discuss a concept only to see it asked as a question. If this occurs, simply make a note of it in the **Questions** section. You do not have to re-answer the question. *It is strongly recommended that you look at the questions before you write your discussion since you will probably find important concepts there.*

Lab Manual Questions: (25 points) Always answer the questions at the end of the lab procedure.

Data (5 points)- Data should be properly labeled, neat and written in ink. All data should be initialed. You should photocopy data from lab notebook and turn in with report.