

Notes on the lab write-up for modern physics labs (Rev. Fall 2006)

Your first (cover) page should include the following information:

Your Name, Date, Title of Experiment and the abstract.

Each lab must be the unique written effort of the student submitting the report.

Submission will be electronically in the form of one single word document. All spreadsheets and associated material must be combined together correctly in this single document.

Title: Concise wording that describes the essence of the lab.

Abstract - a summary of your research including general methods and major conclusions. This is usually one paragraph long and should convince someone to read your paper.

Introduction - specifically describes what the lab is attempting to prove. Often, some history of the problem is included and why the lab is being conducted. Use the present tense.

Materials and Methods - in paragraph form and written in the past perfect tense or passive voice, specific details of the equipment used and the methods in their correct sequence; **include sketches of lab setups**. One must be able to repeat the experiment from this section. Avoid the use of "I" and "we."

Results -written usually in the past perfect tense or passive voice; describes your findings, data collected, and includes data tables, graphs, general trends, derived formulas, etc. All work and data tables must be shown here. In general, you need to have a copy of your original data with you but the data included in the lab report can be copied from your original data.

Discussion - tense can vary, describes your results in relation to other data, discusses problem associated with the lab, postulates trends in the data, predicts results given different circumstances, suggests sources of error, etc.

Note: The Results and Discussion sections are often combined.

Literature Cited - a list of books, articles, etc., that you used to assist you in presenting your data and which were referred to in the write-up. When citing a reference from the internet, you should include the URL that points directly to the document so that a single click of the mouse will bring up that exact document.

Your presentation of the lab is important. Be sure it is grammatically correct and neatly typed (if required). Be careful of tense changes within a paragraph. Graphs should be done on computers whenever possible. A lab report must be an individual report even though you may have worked with a partner. Data collected during a lab must be authentic. "Fudging" is unacceptable and unnecessary.

Lab write-ups should be as concise as possible within these guidelines. I am not looking for exhaustive tomes of work in a lab write-up.