

Lab Report Guidelines

General:

- Keep the lab report as short, concise, complete and accurate as possible.
- Appropriate grammar, spelling, sentence structure and language must be used in the lab report.
- What you hand in (written or typed) must be a neat and organized final draft of your own work. Illegible work will **NOT** be graded.
- All sections of your lab report should be clearly labeled and written in paragraph, **NOT** list/number/item, format.
- Include all relevant diagrams, figures and tables. Make sure all diagrams/figures/tables/etc. have titles and are completely labeled.
- Include all necessary equations, laws and definitions. Make sure all equations/laws/definitions are properly labeled.
- Units, units, units! Any and all numbers that have units should be presented with them.
- Please staple all your lab papers **BEFORE** coming to lab to ensure that no pages are lost.
- If you are still uncertain about what and what not to include in your lab write-up remember the general rule of thumb: Could a person with a background similar to yours perform and reproduce the results of your experiment with your lab write-up?

Format:

Each lab report should include, but is not limited to, the following basic format:

- I. Title:** Title of the lab.
- II. Purpose**
 - A few sentences about the overall goal of the lab that clearly defines the purpose/objective/problem of the experiment.
- III. Approach/Method**
 - A brief description of your experimental procedure with particular emphasis on details that were not included in the lab handout.
 - What equipment was necessary to complete this lab?
 - A sketch of the experimental setup can be very helpful here.
- IV. Data & Analysis**
 - Quantitative and qualitative observations of the lab.
 - Calculations, tables, figures, graphs, etc. should be included in this section.
 - Include one sample calculation of each calculation performed.
 - There should be little or no discussion of data in this section (leave this for the Results & Conclusions section).
 - Error analysis: how did you perform your error analysis and why?
- V. Results & Conclusions**
 - This section should in words reiterate the important conclusions of your Data & Analysis section. What did your calculations, with units and error, give you? How do

your results compare to accepted values (if there are accepted values for comparison)? Do your results, with error, seem physically reasonable? Are there any qualitative generalizations you can draw from your data?

- Briefly sum up the lab, commenting on the agreement (or lack of agreement) between results and the previously defined objective.
- This is also the place to comment on any mistakes you may have made, as well as suggest ways in which better measurements might have been made.