

Lab write-up format 2022/2023 for Physics

**Please make sure to title the lab and write your name and date on the lab, even if shared electronically. **

1. Purpose:

- Put in your *own* words! The intended purpose will not always be the same as what is in the lab(s). This should be to the point.

2. Set Up:

- Use drawings/schematics to aid in making your procedures brief. "Synthesize" elements from the lab and make sure another group could understand well enough to repeat what you do.

3. Data:

- Use tables and graphs. Label the measurements and what units you used thoroughly. You can use a Logger Pro graph or a screenshot of one from Graphical Analysis.

4. Calculations:

- Use three steps.
 - A) Formula
 - B) Actual data replacing the variables
 - C) The answers with correct units

5. **Analysis and Results:**

Analyze your results and interpret what they mean based on your findings. Be sure to include relationships and references to your data and calculations. You may want to include reasons for experimental uncertainty, possible errors, and potential methods of improvements to the experiment, etc. here. The *analysis* of what went right, what went wrong, and how your lab could be improved are important. The amount of analysis is the most important part of your lab write-up. Again, ALL lab analyses should include a discussion about the specific uncertainties and specific errors within your experiment, and these should be based on the method and quantity of data you collect.

An analysis to any lab should be your unique answer to “What did I learn, and how did I learn it?”

When doing a lab write-up as a group, I may be open this year for the group to split up the work for some parts (such as the procedure and data) but still ask you for your own individual analysis. We'll discuss this in class.