

Laboratory Report Format Guidelines – PHYS 101

Your lab report should have five sections:

1. Introduction

This section should contain a brief overview of the purpose of the lab. It should not be a word-for-word replication of the lab manual introduction.

2. Procedure

This section should consist of a brief restating of the steps and techniques required to complete the lab. Again, this must be paraphrased and not directly copied from the lab manual.

3. Data

This section should contain any data, tables, charts, graphs, drawings, or plots that you produce during the course of the lab. Where possible, numerical data should be presented in a clear tabular form. Be sure to include any units with all measured quantities. For plots and charts, label all axes and provide units and an explanation of what the plot contains.

4. Calculations and Error Analysis

Here is where all calculations and any error analysis required by the lab manual should go. Be sure to include the question along with the answer. You should be prepared to explain your reasoning and calculations in detail. Unclear or incomplete answers like “Yes”, “No”, “greater”, or “2.6 meters” will receive no credit. All calculations must be written out or typeset (using proper mathematical symbols) in full. I strongly recommend that you do not submit calculations in, for example, MS Word ASCII format as part of a text document. Either leave space for handwriting or use your word processor’s equation editor.

5. Conclusion

In this section, you should summarize what you found in the laboratory and any conclusions you’ve been asked to draw. You should answer any post-laboratory questions here. You may also wish to use data or calculations from the previous sections to help make your point.

The laboratory report that you submit **must be your own work**. Although raw data (numbers) are shared among all lab group members, you must make your own charts and graphs from the data, do your own calculations and error analysis, and draw your own conclusions. Laboratory reports are to be submitted individually but with **all** contributors’ names listed at the top. Always make sure that your lab is clearly written (both in terms of language and penmanship if you choose to hand-write it) and that each section is well marked. See the following page for a generic layout indicating appropriate placement of title, names, and sections.

Physics 101 Lab 1 – Statistical Errors

Student #1 Name

Student #2 Name

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Introduction

Procedure

Data

Calculations

Conclusion

(Your lab report may, of course, span more than one page!)

Grading of laboratories

Although you may share data and plots taken or produced with your lab group members (in-lab), the lab report that you turn in must be your own. Points may be deducted if (for example) the report is or has:

1. incomplete, copied (from the lab manual or other students), or careless
2. unreadable or incoherent.
3. incorrect or with incomplete answers to questions
4. calculation errors
5. without proper labeling or notation of plots, graphs, drawings, or charts
6. nonsensical or carelessly taken data