Formal Laboratory Reports

These are to be typed, with graphs and spreadsheets attached to the end of the laboratory report. Use the following headings.

Purpose

1. Use complete sentences, passive voice (do not use I, we, one, etc.), in the future tense.
2. Be very specific. For example:

   The purpose is to determine the composition of an unknown mixture of ions;

   The purpose is to find $\lambda_{\text{max}}$ of a food dye, construct a calibration curve to find the molar absorptivity and determine the mass percent of the dye in Froot Loop cereal;

Introduction

1. Write in complete sentences, as a narrative; not bullet statements.
2. Write in passive voice and in the future tense.
3. Give background information or theory that connects procedure to Purpose.
4. Summarize or outline the main points of the procedure, but without specific procedural details.
5. Do not include all the procedure. Just give highlights and how they are relevant to answering the Purpose.

Data and Observations

1. This should include your data shown in a table and observations that you made during the experiment.

Data Treatment and Discussion

1. Write a description (narrative without numbering steps) of what you are calculating or finding from a graph (referring to the graph), and then show the calculation. If you are finding a number ($\lambda_{\text{max}}$, etc.) do not just say you are finding it – give the answer, with appropriate units.

Conclusion

1. Clearly repeat the answer(s) to the Purpose in the first sentence.
2. Include the questions at the end.
3. Indicate any sources of error. Do not include human error or incorrect calculations.