Lab reports are your own original works. Copying another student can result in failure. When working with a partner or group, identify your collaborators and you may share data but not written analysis or claims, which should describe your own thinking.

The purpose of lab reports is to communicate your lab findings, analysis, and claims clearly. There are no required lengths or formatting. However, we provide the following outline to suggest an organization to increase the chances that your report will be easy to construct and follow.

Summary: The purpose of the summary is to present the title of your report, the date that the lab work was done, your partners, if any, and a couple overview sentences about what the lab experiment was about. You can write this section first.

Data, Results, Evidence. Title this section with one of these words. The purpose of this section is to present information that is easy to follow concerning what was measured and observed during the experiment. Remember that observations can be important data to use in your analysis. Since patterns are often critical to understanding data, this often means presenting data in a Table as well as a Figure. An annotated lab report is provided, which includes a poor example to illustrate the difficulty of understanding data when it is not tabulated and graphed. This is followed by an excellent example that includes Tables, Figures, and additional information necessary for understanding and interpreting the data.

Analysis of Evidence. Title this section with these words. The purpose of this section is to provide the logic to understand your data, results, or evidence section. This is the section where you can add outside references. Data from outside sources goes here rather than in the Data section because you were not involved in obtaining the data. You can use outside data to support your analysis. The “thinking” work involved in analyzing what you did in lab belongs here and it often is the most difficult and challenging part of writing a lab report. You greatly aid your analysis by starting your thinking about your results while you are doing your experiments! This is a skill that benefits all scientists. A best practice in lab is to make notes you think are important right in your lab notebook! Examples of poor and good analysis are shown in the annotated report.

Claims, Conclusions. Title this section with one of these words. The purpose of this section is to explain what claims or conclusions you can make from the data. The logic of your claims builds from the details presented in your previous sections. The strength of your claims will be tied to what evidence you present, and what reasoning you use to make meaning of the experiments you conducted (along with outside references). A good claim will include a short summary of the major pieces of evidence and analysis. Scientific claims are submitted to the scientific community, and judged based on the evidence and analysis presented. We therefore ask you to write your claims so that your instructor and fellow students will be able to follow them, in order to assess their strengths. Examples are provided in the annotated lab.