# $\begin{array}{c} \textbf{Report for Experiment } \# \mathbf{N} \\ \textbf{Lab Name} \end{array}$

Name
Lab Partner: Name
TA: Name
Date

## Abstract:

- Summarize motivation and main results.

#### **Introduction:**

- State motivation why you did this work?
- Describe physics phenomena and methods of study.
- Cover all investigations, keep short.

### **Experimental Data:**

- For each investigation: Discuss experimental set-up.
- Explain experimental procedure.
- Describe how the data were collected.
- Include all data using graphs/tables, with titles.
- If needed, include truncated raw data into Appendix.

### **Analysis:**

- Summarize physics concepts under investigation.
- Discuss relation between data and theory.
- Describe techniques used to analyze data.
- Discuss sources/values of uncertainties in your measurement.
- Write down main results with uncertainties.
- Compare measured quantities to expected values.
- Discuss if they match or not your expectations.
- List the unaccounted factors in your analysis.
- Argue why and how external factors may affect the results.

#### **Conclusion:**

- List physical concepts that have been investigated.
- Summarize all main results that you obtained.
- Discuss how external factors might have skewed the results.
- Discuss possible improvements.
- Keep to half a page.

## Questions:

- Answer all questions at the end of experiment in the IPL Manual.
- Type all necessary algebra, not just the answer.
- Honors sections must answer extra question.