Abby’s Rules for Successful Lab Report Writing
(Common issues are in **Boldface**)

1. A word on plagiarism: **DO NOT COPY THE LAB MANUAL.** You may cite the lab manual in your Theory and Methods sections only, and not more than once per paragraph. Summarize what you did, and only after that should you check with the manual for correctness and clarity. You will incur my wrath if you ignore this rule.

2. For all scientific writing: always write in third person, passive voice—no “I”, “me”, “we”, “the student”, or even “the lab instructor.” Good example: “The calculated slope of the data was then used to compute an experimental value of the Rydberg constant. A percent difference between this value and the theoretical value was then found.” Bad example: “We found the Rydberg constant. The lab instructor told me to do a percent difference, so I did.”

3. Use the following outline:
   a) **Title sheet:** Include your name and the lab title.
   b) **Purpose:** Think of this as a thesis statement. What was the goal of the experiment? What quantity did you actually measure? Why? 1 sentence.
   c) **Theory:** **In physics, this means “math”**. Explain the main equations used in the lab, especially including ones relating to the purpose statement. For instance, if the lab is titled “Ampere’s Law,” you can bet that you should include the general statement of the law and show how to get the specific case of the law which was tested in lab. 1-3 paragraphs.
   d) **Methods:** Describe the general procedure of the experiment and how the results were calculated. Don’t cover every step of the process. See Rule 2 for a sample sentence. 1-2 paragraphs.
   e) **Conclusions:** Professionally and formally discuss your results. What observations did you make during the experiment? What results did you expect and why? Are your results similar to what you expected? Do they match the intentions in your purpose? What problems might have contributed to percent error? 1-2 paragraphs.
   f) **Data:** Attach the data you took while in lab. Check for readability and neatness. **Label everything**, especially: graphs (title, axis labels, units), tables (title, column headings, units) and results (experimental/calculated values, theoretical values, percentages…).
   g) **Calculations:** May be interspersed in the data. Show the actual calculations you did to obtain your results. If there are many similar calculations, one sample will suffice. Show enough so that I can see what you are doing.

4. The report should be 2-3 pages long, not counting the data.