# LABORATORY REPORTS - GUIDELINES

Often, you will be asked to write an "Abstract", which is a short summary of the experiment that you completed. Abstracts should be written on a single side of a sheet of paper. A suggested format for an abstract follows.

a) In the upper right corner put your **name** and the **date** you *performed* the experiment.
b) Centered at the top, write a **title** for the experiment.
c) Below the title should be the **abstract** itself (see below).
d) In the lower right corner put the **name(s) of the colleague(s)** with whom you worked on the experiment. Indicate that they are your partners.

An **abstract** is a concise and informative statement of the experiment performed, with a brief mention of results and conclusions. You should address it to an audience with a scientific background, though one who is **not** necessarily familiar with the particular experiment you are reporting on. The abstract should include the following (the numbers of sentences are included only as a rough guide):

*Statement of purpose:* Typically, the purpose of an experiment is to measure a certain quantity (1 sentence).
*Brief experiment description*: Describe (don't just list!) what equipment was used, as well as how it was used (2 or 3 sentences).
*Analysis*: Explain how you manipulated your measurements to obtain the results. If you made a plot, explain the usefulness of the plot (2 or 3 sentences).
*Results*: Provide the final quantity(ies) that you intended to discover. You must include a numerical uncertainty (1 or 2 sentences).
*Conclusion*: Discuss whether your results are consistent within uncertainties. If your uncertainty is high, explain why. (1 sentence)

The general emphasis on the various sections listed above will obviously vary from experiment to experiment. Abstracts should contain no diagrams or equations. The abstract is to be typed, **double-spaced**, and may not exceed ¾ of a page. Use proper English, write concretely, avoid ambiguity, and make it self-contained. It is a good practice to outline your experiment before writing the abstract, then work through a few drafts, and have a friend read it for comments. **Proofread** your work before handing in.

In addition to the abstract, your instructor may require you to submit plots, a discussion of the answers to any questions asked in this lab manual, and/or other supplementary information.