

Lab Notebook Guidelines

You will be required to keep a laboratory notebook throughout the semester. You may purchase an inexpensive "composition" type book for this purpose (bound pages please). DO NOT use a loose-leaf binder. You will be graded on this notebook. Remember that the purpose of the lab notebook is to record what you are planning to do, why you are doing it, what you actually did, any conclusions you made, as well as to enable you or someone else to repeat the experiments. The lab notebook is not a formal presentation of your work and should not be recopied for neatness - it is the original notes you used to plan and record your experiments.

1. **Title:** Include exercise number and title and date. (If you continued the lab activity outside of class - make sure you include date and time)
2. **Purpose:** Briefly state what the objective of the experiment is. Include your research question, hypotheses and predictions. If possible, complete this you can BEFORE coming to lab.
3. **Procedure:** List the methods and/or procedures that you will be using during the experiment. If you are designing your own procedures write out a list of all materials and supplies you will use, otherwise refer to the protocol (instructions) in the lab guide (note any deviations from the protocol). Make drawings or attach pictures, if it will help remind you or make clear to others how you conducted your experiment.
4. **Results/Descriptions:** Record all observations and results from your experiments. Attach any pictures in this section and write down all details and comments. Make tables of your data. Don't count on remembering small details in the future. You should be able to figure out what you did a long time after you performed the experiment. In addition, someone else should be able to read and understand what you did. If you ever replicate the experiment you are working on, you will need to go back and do things exactly the same way.
5. **Discussion/Analysis:** Answer the discussion questions and assignments that are posed in the lab syllabus. Add any comments that you have about the procedure/results that you find useful. This is where you can review what you did during the experiment and what you learned, etc. The discussion is the most important part of the write-up because it reflects your own understanding and encourages critical thinking.

General comments:

- Number the front and back of each page and reserve the first page as a table of contents.
- Always record entries legibly, neatly and in permanent black ink.
- The procedure outlined in your Laboratory Notebook should be the procedure you follow. Record any differences between what you actually did and the written laboratory instructions.
- Immediately enter into your notebook and date all original concepts, data and observations, using separate headings to differentiate each.
- Record all concepts, results, references and other information in a systematic and orderly manner. (Language, charts and numbering systems should be maintained consistently throughout.)
- It is acceptable to make your entries brief. Always, however, include enough details for someone else to successfully duplicate the work you have recorded.
- Label all figures and calculations.
- Never, under any circumstances, remove pages from your notebook.
- Start entries at the top of the first page, and always make successive, dated entries, working your way to the bottom of the last page.
- Make sure that you record the date of each entry clearly and unambiguously.
- Never let anyone other than yourself write in your Notebook.
- Do not erase errors or use correction tape/fluid. Just draw a single line through any erroneous entry, then add your initials. Enter the correct entry nearby.
- You can supplement your entries with supporting material (e.g., test-result printouts and other documentation). But you must permanently affix the material onto a page in its proper chronological location.
- Never rely solely on any supplemental attachment. Always include your own entry describing the attachment and add any conclusions that you might draw from its substance.
- Occasionally, secondary sources might be too large or inappropriate to attach directly to your notebook. In this case, you can add all secondary sources to an ancillary record maintained precisely for this purpose. However, always remember to write a description of these secondary sources, clearly and unambiguously, in your notebook.