UNC Charlotte Senior Design
Laboratory Notebook Guidelines

Keeping a complete and accurate record of experimental methods, design and data is an essential part of engineering. Your laboratory notebook is a permanent record of the methodology you used to generate a design. Learning to keep a good notebook now will establish good habits that will serve you throughout your career. Your notebook should be like a diary where you record what you did and why you did it. The notebook should be written so that someone else, with an equivalent technical background to your own, could use your notebook to repeat your work and obtain the same results. Additionally, you should be able to come back six months later, read your notes, and remember why you made the decisions that you did.

It is also important to maintain a good laboratory notebook in order to protect your intellectual property (e.g. patents). An appropriately maintained notebook can often mean the difference between gaining and not gaining recognition for a discovery.

General guidelines to start a laboratory notebook:

- Use only a bound notebook.
- Put your full name and year of use on interior side of front cover of notebook.
- Put the project name on interior side of front cover of notebook.
- Put phone number and e-mail address on the interior side of the front cover so it can be returned to you if lost.
- If your notebook does not already have a Table of Contents, devote pages 1 and 2 to a Table of Contents which you will fill in as time passes. Have 2 columns, one for subject name and one for page number where a particular subject. If you come back to your notebook after 20 years, you will be able to quickly find the appropriate section of your notebook. This Table of Content is also crucial for others that might want to use the notebook to reconstruct your activities.
- If your notebook is not already equipped with page numbers, add them (in top right- and left-hand corners).

Maintaining a laboratory notebook:

1. Always record entries neatly and legibly. Your entries should be easily read by another engineer.
2. Write with permanent ink.
3. 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.
4. Put an X through any blank lines or pages to insure that information cannot be added to

in those spaces at a later date.

5. If one entry describes Concept 1, then the next entry describes Concept 2, and the third entry comes back to Concept 1, indicate the page number that you are continuing from and the page number you are continuing to.
6. Provide the full date whenever you make an entry (e.g. 10/1/2007).
7. If you make a mistake, draw a *thin* line through the word or number rather than completely covering up the entry with an ink blob. In some cases you may decide that your original entry was, indeed, the correct one, and you will be glad that you can still read it. It is good practice to initial all corrections.
8. For the same reason, never use correction fluids (e.g., White Out) or strips of white laboratory tape.
9. Immediately enter into your notebook and date all original concepts, data and observations, using separate headings to differentiate each.
10. Record all concepts, results, references and other information in a systematic and orderly manner. (Language, charts and numbering systems should be maintained consistently throughout.)
11. It is acceptable to make your entries brief. Always, however, include enough details for someone else to successfully duplicate the work you have recorded.
12. Label all figures and calculations.
13. Never, under any circumstances, remove pages from your notebook.
14. 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 (tape or staples are OK for this course).
15. 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.
16. Occasionally, secondary sources might be too large or inappropriate to attach directly to your notebook (e.g. engineering drawings or schematics). 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.
17. Sign your name in the signature box at the bottom of every page that you write on.