

## Engineering Design Notebook Guidelines

### Overall Guidelines:

- Do not use the notebook as a diary, chronologically listing the order of events during the semester (e.g., I called a vendor today; we met today....)
- Use the notebook to demonstrate how you have synthesized new knowledge
  - For example: I called a vendor today and confirmed that our material of construction and reactor we have specified will handle 2000 psig (provide details of conversion and assumptions). Subsequently, you should perform reactor design calculations coupled with the Ergun equation to demonstrate that your reactions conditions will not exceed 2000 psig. Link the pages by making appropriate notation within the notebook.
- Perform and clearly present sample calculations demonstrating your design and validating your assumptions.
- Each member of the group must provide sample mass, energy, and design calculations for the unit operations that they are responsible for designing.
- **Remember, the engineering design notebook will be used to assess your individual grade. It will be used to assess your technical skills as an engineer (i.e., are you ready to graduate and become a practicing engineer?) and your contribution to the team and the overall design. It should be obvious to a reader of your design notebook and the final report how your contribution was incorporated into the final design.**

### Detailed Guidelines:

1. On the front of the notebook enter the project title, your name and other information needed to have the notebook returned to you in case it is lost.
2. Keep a table of contents at the front of the notebook.
3. All entries must be done in ink.
4. Design notebooks should be neat and legible.
  - a. Do not crowd the materials on the pages.
  - b. The material should “flow” on a page.
5. Make your entries at the time you do the work.
  - a. Include all results and learned information whether favorable or unfavorable.
6. If you make errors, just cross them out with an X or a single line. Do not mark through anything so that it cannot be read.
7. Do not erase anything.
8. Never tear a page out of the notebook.
9. All data must be in their original form (calculations, charts, pictures, sketches on scrap paper, etc.), not after recalculation or transformation.
10. Rough drawings should be done directly in the notebook. More careful drawings such as machine drawings or computer-generated plots can also be made and entered in the book.
11. Information on loose sheets of paper should be entered into the notebook by:
  - a. Taping the loose paper to the next available blank page in the notebook.
  - b. Taping each “corner” of the loose paper to the notebook.

- c. Use a tape that will accept ink permanently
  - d. Place your signature on the loose paper, continue across the tape and end on the design notebook page. Sign across each piece of tape. Date the signature.
12. Information that can be retrieved easily (such as research articles from journals) should not be entered into the notebook. Enter only the needed information and the location and the location of the information in case you must retrieve it again.
  13. Title each page of the notebook and enter the information on the Table of Contents.
  14. Sign and date the notebook page at the space provided at the bottom.
  15. Have your design entries witnessed and have the witness sign and date at the space provided.
    - a. The witness needs to have the technical ability to understand the entry.
    - b. The work can be witnessed periodically.
  16. Every page of the notebook must be numbered.
  17. No pages should be skipped. This is a chronological record of your work.

A good engineering design notebook is one that can be used to reconstruct your work even years after you have completed the original project. Other engineers should be able to use the notebook to reconstruct your work. The notebook will be used to determine the rightful owner of patents and other proprietary ideas.