

UNIVERSITY OF NOTRE DAME
DEPARTMENT OF AEROSPACE AND MECHANICAL ENGINEERING
AME30362: Design Methodology, Fall 2009

P8 - Sketching Project – Option II
Project Due Date: Tues. Dec. 1, 2009

This project will give you the opportunity to develop or refine your ability to visually express your ideas or to visually represent existing artifacts. Quite often engineers need to simply express an idea – a back-of-the-envelope sketch – and this is a valuable skill.

Project Requirements:

If you select this project you are required to regularly use a “sketchbook” during this semester to hand-draw sketches of artifacts such as product concepts (design ideas) or existing products. The basic requirements are:

1. Purchase a sketchbook that is at least 5”x8” in size. The sketchbook should be bound so that pages cannot be added. Permanent ring or hard binding is acceptable and plain-paper sketchbooks can be found in many stores for approx. \$10. (more expensive on campus).
2. During the semester enter sketches into the book **at least 3 times each week and spend at least 10 minutes during each session**. There are 12 full weeks of class during the semester so you will be required to develop at least 36 entries. An entry can, and probably should, have multiple sketches. You can sketch in either pencil or ink or a combination.
3. Sign and date in ink each entry (sketching session).
4. You can sketch anything you want but it is recommended that you sketch “things” versus people, landscapes, etc. but it is acceptable to use a mix of subjects. Ideally you will use the sketchbook to develop “ideas” for new designs but depending upon your drawing skills you may want to start just trying to sketch very simple objects. The sketchbook should be more than “doodling” and you may want to add annotations to indicate how an idea might work, multiple views, etc. Draw some objects that already exist and for which you are trying to quickly represent the object with a sketch in the way you might do in an informal conversation with another engineer. Draw some objects that only exist in your mind and you want to express those thoughts visually.
5. It is important to note that drawing skill is NOT a prerequisite for this project. You will be given credit for the project based upon consistency of entries into the sketchbook, NOT your drawing skill. Even if you think you are a poor artist/sketcher, you should consider this project as a chance to begin to improve your skills. Hopefully with a bit of practice each week, your skill level will improve but that is not an evaluation criteria.

There are many books available to help you develop hand drawing skill and you may want to purchase one and use it to assist you during this project, but that is not required. A Google search for “engineering sketching” will provide you with many ideas and examples.