



On the Technical Report:

The technical report is set up to be like the experience of doing a *Capstone Design Project*. Capstone design projects are used in various departments to help professionalize students who are in their senior year. I am using the capstone format to help introduce a variety of issues related to technical communication. Capstone projects emphasize finding and synthesizing solutions to open-ended problems. In essence, capstone projects ask that students work together in teams in order to define a problem, develop a research strategy and methodology to achieve a solution to the problem, produce and demonstrate information that helps to solve the problem, and present their findings using written and oral reports.

Developing a Research Methodology

- Defining a problem statement and criteria – defining the problem that you want to solve and *how* you want to solve it.
- Developing a *methodology* that will allow you to find a solution
- Achieving *triangulation* through a variety of (empirical, print, electronic; primary and secondary) sources

Project Management Skills

- Planning your project – Major deliverables and deadlines you need to produce/meet
- Finding resources – Gathering information from *primary* (people, organizations, an actual site where you can gather data on the problem) and *secondary* (journal articles, online journals, books) sources

Design Selection and Optimization

- Doing research and synthesizing ideas for solutions – Next to finding good information, locate relevant information for solutions that you should relay back to the group.
- Reviewing each other's solutions – Meeting with your group, review the solutions in terms of importance to the project goals and problem statement
- Choosing a solution – Choosing a particular solution that you will emphasize as a major solution in the report (although you should also include alternate/minor solutions)

Communication Skills/ Interpersonal Skills

- Dividing up group tasks/ Individually being responsible for particular tasks
- Communicating with members (remember the golden rule: treat others like you would like to be treated)
- Communicating through various technologies as well as face-to-face in order to maintain task- and project-oriented dialogue

Ethics

- Dealing with ethics of the solution – if your solution is adopted, what considerations are introduced for the various stakeholders that are involved with the problem?

Writing/Design and Web Creation Skills

- Collaborating and writing a successful technical report
- Collaborating and designing a good project website