Capstone Design
Preparing a Design Proposal

Goals of Presenting a Proposal

• You want to convince the client to pay you to develop a solution to his/her problem.
• You want to make sure that you and the client have the same understanding concerning what the problem is and what the scope of your solution will be.

Components in a Proposal

1. A statement of the client’s problem. Developing this statement and having the client sign off on it is one of the early steps in the design process. You should have already done this by the time of the formal proposal.

2. A statement of exactly what you plan to provide to the client to solve the problem (a piece of production hardware? A prototype? A proof-of-feasibility? A software program?). You will also want to briefly discuss the benefits of your solution (including possible customers to whom the client may be able to market the end product).

3. A statement of why you are the best possible source for the client to employ to solve his/her problem. We will leave this piece of salesmanship out of our Capstone proposals.

4. A plan of action. You may wish to include this as a separate item or you may want to discuss the plan of action when you present the schedule.

5. Detailed specifications, including relevant standards.

6. Societal and environmental impact, health and safety issues, and ethical issues (and their resolution) concerning the client’s problem and the scope of your solution.

7. A brief, general discussion of potential solutions. This discussion should include the benefits and risks of each solution and any additional social/environmental impact, health/safety issues, and ethical issues which are specific to the particular solution. The depth of your discussion depends on the situation, status, temperament, and technical sophistication of your client. On the one hand, this is a good place to educate your client, get her/him to feel that they are personally involved, and show him/her how hard you will be working and what a difficult challenge it will be to solve the problem. On the other hand, the client may not care too much and may just want to make sure that the job gets done. The discussion will usually be of greater depth in an in-company proposal than in an out-of-company proposal.

8. Maintenance and upgrade plans and documentation which will be provided to client. You may also wish to discuss manufacturability if product is intended for mass production. If you plan to give client a performance guarantee, this may be a good place to mention it.

9. Test plan. Again, depth will depend on client. You may want to show detail to justify cost and time, and you may want feedback, especially for an in-company proposal.

10. General schedule and budget. For in-company presentations you will want to show more detail in your schedule and you may also want to show a plan of action. Also briefly discuss the resources you have available to support your design effort.

11. Any additional support you need from client – information, supplies, access to facilities.

12. Plan of how you will report to client and keep her/him informed of your efforts.

13. Conclusions.