

XXX 487/488
SENIOR DESIGN PROPOSAL

The first written requirement in your XXX 487 course is the development of a proposal. Proposal writing has been covered in your TCO 340 or 341 course and, therefore, will not be presented in detail here. You are encouraged to review your technical communication text and notes. Recall that a proposal is a written offer to solve a problem or provide a service by following a specified procedure, using identified resources, and adhering to a published timetable and budget. (Note that a budget is much more than the total dollar amount requested or allocated for the project. It is a systematic plan for meeting expenses.) Proposals answer the following:

What is the problem or need being addressed?

What is the proposed product, service, etc.? (i.e. identify all “deliverables”)

How will you accomplish the work being proposed?

Note that this is not to be a list of the engineering design process steps presented in your course notes. This is your opportunity to explain the method(s) you intend to use to achieve the design goal. In particular, by the time you write the proposal you should have at least some specific ideas that you expect to investigate. These should be described and illustrated with appropriate drawings.

What is your timetable for doing the work?

What resources will be needed (money, equipment, etc.)?

What is your plan for acquiring/using these resources?

How will you measure the effectiveness of your work?

For the purposes of this course, your proposal must also identify the specialty (BME, ISE, etc.) of each member of your design team and you must indicate in specific terms how each of these specialties will be used in the project. **In addition, each member of your team must complete the Project Content Approval Form shown on page 18 of this guide. This form must be signed by a faculty member from your discipline, indicating that the project contains sufficient design and analysis content associated with your specialty.**

Once you have generated a document that addresses the above, you should examine it with a view toward clear communications. Consider (but do not limit yourself to) the following:

Is the audience obvious? Who is the “client”?

Does the document communicate clearly?

Is there a clear problem definition or statement of needs?

Is there a clearly proposed procedure for solution?

Is the procedure objective clear? Are “deliverables” clearly identified?

Are procedure steps presented in sufficient detail?

Does the author make a convincing case for the solution process?

Are the criteria for “success” identified?

Are resource needs addressed?

Identified people? Specific talents?

Equipment?

Space/location?

Time? Timetable?

Budget? (A systematic plan for meeting expenses)

Is the document well organized?

Is the document free of spelling and grammatical errors?

Does the document make appropriate use of graphics, tables, etc.?

Is there a request for approval? (Once the proposal is accepted, it may be changed only with the written approval of the client, the principal evaluator, and the technical advisor(s).