BE 4900 Preliminary Design Report Score Sheet

11/01/02

Project Title:

Team members:

	Max	Score
Completeness: • Are all the required sections/information present? (*c.f.* attached checklist) • Is there an adequate problem statement? • Are the objectives, essential functions, constraints and specifications given? • Are conceptual designs presented and described adequately? • Is there a design selection analysis presented? • Is there a plan for final design, fabrication, testing and evaluation and reporting? (Gannt or PERT chart, LRC, WBS)	30	
Technical quality: • Is the information presented correct and self-consistent? • Are thorough testing and evaluation results presented? • Does the system / device fulfill the stated objectives and requirements? Is it technicall feasible? *(i.e., will the gizmo **work**?)* • Is the solution cost-effective? (i.e., can it be built for what it's "worth" to the customer?)	50	
Writing: • Is the material presented in a logical and coherent fashion? • Is it free of punctuation, spelling and syntax errors? • Is material presented at an appropriate technical level? • Is the proposal adequately referenced?	20	
Total	100	

BE 4900 Preliminary Design Report Checklist *12/19/00*

Project Title:

Team members:

- ❑ Cover page, stating the Project title and client, design team #, team members (with e-mail addresses), project advisor(s). Every team member must sign the cover sheet.
- ❑ Table of contents.
- ❑ A summary, sometimes known as an "Executive Summary (**1 page max.)**
- ❑ The problem statement. This is NOT simply the client's statement of the problem. It is your statement of the problem, based upon your research. It should include all relevant background material, including prior work , review of pertinent literature, description of relevant patents, and identificaton of significant technical issues. (**2-3 pages typical**)
- ❑ A list or description of all constraints and objectives. An objectives tree (weighted or not) should be included. (**2-3 pages typical**)
- ❑ A list or description of design specifications. (**1 - 2 pages typical**)
- ❑ Synopses of conceptual designs considered. Present your concepts using figures and drawings. A morph chart, or similar tool, is **strongly** recommended. (**2 - 5 pages typical,** including figures)
- ❑ Presentation of the preliminary design. Decompose the design into systems, sub-systems and components. Use a block diagram, or other graphic tool, to clearly identify all major components and sub-systems. Include specifications of each component, system or sub-system, where appropriate. (**4-8 pages typical,** including figures).
- ❑ Feasibility analyses. Objectively demonstrate which conceptual design satisfies the design constraints and best meets the stated objectives and functions. This includes showing your con This may be based on experiments, model analyses, review of applicable literature or other appropriate sources of information. **This is a critical component of your report** (**2-5 pages typical,** including figures).
- ❑ A management plan for next semester. Include a Work Breakdown Structure (WBS) for the detailed design phase, prototype fabrication, testing, evaluation, and final report preparation. See pp. 87-91 (Dym & Little) for a discussion of the WBS. Also include a Linear Responsibility Chart (LRC; see pp. 92-93 of Dym & Little), identifying the individual(s) responsible for each task (**2-4 pages typical**, including figures).
- ❑ Include a Gantt chart (required). Identify critical tasks and milestones. A PERT chart is optional. Your schedule should include a poster presentation on April 23, 2003. The final report design report must be completed no later than 5:00 pm Friday, May 2, 2003.
- ❑ A list of references. Identify all sources you used, including books, journals, newspaper and magazine articles, web sites, personal communications, product literature, etc.

Use 11 pt or larger type, standard font (Times New Roman, Arial) and 1 inch margins throughout.

Comments: