

REPORTS ARE DUE IN THE BIOMEDICAL ENGINEERING OFFICE
NO LATER THAN 4:00 PM FRI., May 2, 2003

Project Title:

Team members:

	Max	Score
<p>Thoroughness:</p> <ul style="list-style-type: none"> • completeness (<i>c.f.</i> attached checklist)* 05 • problem stated accurately & fully 05 • objectives, essential functions constraints and specifications given 05 • conceptual designs presented and described adequately 05 • fully and adequately referenced 10 • design selection analysis presented <u>05</u> <p style="text-align: right;">Thoroughness Sub-total 35</p>		
<p>Technical quality:</p> <ul style="list-style-type: none"> • information is correct and self-consistent 10 • testing and evaluation results 10 • system / device fulfills the stated objectives and requirements (<i>i.e., the gizmo <u>does what it's supposed to</u></i>)** 10 • cost-effective? (<i>i.e., can it be built for what it's "worth" to the customer?</i>) 10 • suggestions for improvements and/or modifications to the design? <u>10</u> <p style="text-align: right;">Technical Quality Sub-total 50</p>		

BE 4910 Final Design Report Score Sheet

3/14/03

Writing Quality:		
<ul style="list-style-type: none"> • material is presented in a logical and coherent fashion 	05	
<ul style="list-style-type: none"> • report is free of punctuation, spelling and syntax errors 	05	
<ul style="list-style-type: none"> • material presented at an appropriate technical level 	<u>05</u>	
Writing Quality Sub-total	15	
Total	100	

**Reports which are substantially incomplete will be returned ungraded, and team members will receive a grade of "X".*

***A functioning device, system or prototype is required. Failure to meet this requirement will result in a grade of "X".*

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". See pp. 278-90 of Finkelstein for a discussion of the Executive Summary (1 page max.)
- The problem statement. This is NOT simply the client's statement of the problem. It should reflect your statement of the objective, based upon your research. This should be a condensed version of the problem statement presented in you project proposal. (1 - 2 pages recommended)
- A list or description of all constraints and objectives. (1 - 2 pages recommended)
- A list or description of design specifications. (1 - 2 pages recommended)
- Synopses of conceptual designs considered. Present your concepts using figures and drawings. A morph chart, or similar tool, is strongly recommended. (2 - 5 pages recommended, including figures)
- Feasibility analysis for each of the conceptual designs. Objectively demonstrate which conceptual design satisfies the design constraints and best meets the stated objectives and functions. This may be based on experiments, model analyses, review of applicable literature or other appropriate sources of information.
- Presentation of final design, including "as-built" drawings, where applicable. Include a list of materials, and their costs. **This is a critical component of your report.** (5-25 pages recommended, including figures).
- Evaluation and Testing Procedures and Results. Demonstrate whether the design meets the stated objectives and constraints. If it does not, discuss how it might be improved. **This also is a critical component of your report.** (5-25 pages recommended, including figures and tables).
- Improvements Needed. Identify how the design / prototype could be improved. If it does not fully meet all the objectives, could it be modified to improve the performance? Are there ways to make it cheaper, easier to assemble, or more reliable? (2-10 pages recommended)
- Economic analysis. Present a cost analysis for your device or system, detailing material and fabrication costs. Identify and discuss the market for your device / system.
- Social and ethical impact. Discuss the social impact of your design. Are there non-economic costs and benefits? Are there ethical issues associated with its use, its marketing, or sale?
- 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, single-spacing and a standard font (Times New Roman, e.g.).

Use 1 inch margins throughout.

Comments: