Guidelines for First Project Presentation
CENBD 480/EE BD 480 - Engineering Design Concepts
Penn State Erie, The Behrend College Fall 2006

Ground Rules

- Presentations will be from Monday 11/13 to Friday 11/17.
- Update your design report to a) reflect feedback from our faculty advisor grading on the Problem Statement and b) reflect changes recommended for the requirements.
- Provide a hardcopy of the current design report (up to and including the engineering requirements) to each member of your faculty committee at least 48hours prior to your selected presentation time.
- Prepare a 20 minute presentation (30 minutes total: presentation, Q&A, and out-the-door). We will cutoff presentations that exceed the time limitations.
- The question & answers typically last 5-10 minutes. The questions may be posed during the presentation, not just at the end of it.
- Use PowerPoint for your presentations. Bring the presentation to the conference room on a USB flash drive or CD-ROM (backup is recommended).
- It is the responsibility of the teams to find a suitable presentation time for the students and faculty advisors and reserve a presentation room with Sandra Taccone in the School of Engineering office. Dr. Nelatury will post suitable times for teams to select from on his door (REDC 161). Notify all of your advisors by email of the final presentation time and location once it is selected.
- If your project is sponsored by industry, please invite the industrial supervisor(s) of your project.
- Dress? Don't come naked and don't come in a tuxedo. Business dress (ties, skirts, etc) is not necessary. Do think about the impression you want to make. No baseball caps.

Preparing the Presentation

The objectives of this presentation are:

- ***Introduction, Problem Statement, and Needs.*** Provide an overview of your project and address the need/motivation, goals, and objectives for the project. Remember that the faculty members are not familiar with your projects at this point and also remember the "12-year test" for explaining something. This is particularly important in this section.

- ***Background & Problem Analysis.*** Indicate what the current state-of-the-art in the field is regarding this particular technology. If it is a *new product project*, identify similar products that are available and what is unique about yours. If it is a *research project*, include the basic theory of what you are doing and address current status of work in this area.

- ***Engineering Requirements.*** Address the requirements for the project and give a rationale as to how you arrived at the specifications and how they will be tested.

- ***OPTIONAL. Potential Design Options that you will consider.*** What are the major technical issues that need to be addressed? How are you going to address them?

What different alternatives do you plan to investigate? Do not give a single design option, but explain what some of the alternatives may be. You want to use this opportunity to get help from the faculty here in terms of different approaches to the problem.

Grading Scale that will be used by the Faculty (tentatively)

Scoring: 1 = Poor, 2 = Satisfactory, 3 = Good, 4 = Very Good, 5 = Excellent

1) Presentation Ability (15%): Factors to consider include:

- Were the members able to engage the audience? Did they make eye contact?
- Did they speak clearly, with grammatically correct sentences, and use proper word choice?
- Were they able to explain concepts and theories? Were they able to clarify ideas and respond to questions?

2) Team Presentation Rating (15%): Factors to consider include:

- Was the presentation well-organized? Did the order and flow of the slides make sense?
- Were the slides laid out clearly and legibly?

3) Technical Content Score (70%): Factor to consider include:

- Did the team provide a good motivation and introduction to the problem?
- Have they done proper background research? Did they identify the state-of-the-art and similar products? Or if applicable, the basic theory?
- Did they identify the marketing and engineering requirements?
- Do the engineering requirements satisfy the criteria in Table 3.7 in the text?

Guidelines for Second Project Presentation – The Engineering Design
CENBD 480/EE BD 480 - Engineering Design Concepts Penn State Behrend

Ground Rules

- Prepare for a 20 minute presentation. The total time slot for the presentation with Q&A is 30 minutes.
- Team must arrange for a 30 minute presentation time slot with Sandra Taccone in the School of Engineering office.
- Use PowerPoint for your presentations.
- Presentations are to be held during finals week (December 18-21, 2006; Monday-Thursday, not on Friday). The teams are expected to find a suitable meeting time for the students and faculty (same committee as for the last presentation). **Notify your faculty committee by email of the presentation time once it is selected.**
- ***If your project is sponsored by industry, invite the industrial supervisor of your project to the presentation.***
- Hardcopies of the design document and project plan must be provided by the team to the faculty committee members 48 hours prior to the presentation. The objectives of this presentation to the faculty are:

The Presentation Format

- ***Introduction & Problem Statement.*** Provide a **brief** overview/need/motivation of the project – remember the 12 year-old test.

- ***Requirements.*** Not necessary to present these, but you may identify some of the key ones at your own discretion. **However, if you have made changes to the requirements/specifications since the last presentation, you should address what they are. Teams with software engineers, introduce any new enterprise or user level use cases (happy path only).**

- ***The Proposed Design.***
    - What is the high-level design?
    - How does it work (how do the pieces fit together to make the whole)?
    - What are the design details of the sub-components?
    - Software Engineers should present their class diagrams, significant sequence diagrams, and User Interface screens.
    - What are the major technical issues that need to be addressed? How are you going to address them?
    - How does the proposed design meet the requirements?
    - What different alternatives have you investigated? Be prepared to discuss the alternatives and be prepared to defend your decisions.
    - Use this opportunity to get help from the faculty in terms of different approaches to the problem.

- ***Project Plan.*** A 1-2 slide summary of the project plan on which you identify the major areas of technical responsibility and estimated development costs.

Grading Scale that will be used by the Faculty

Scoring: 1 = Poor, 2 = Satisfactory, 3 = Good, 4 = Very Good, 5 = Excellent

1) Presentation Ability (20%): Factors to consider include:

- Were the members able to engage the audience? Did they make eye contact?
- Did they speak clearly, with grammatically correct sentences, and use proper word choice?
- Were they able to explain concepts and theories. Were they able to clarify ideas and respond to questions?

2) Team Presentation Rating (20%): Factors to consider include:

- Was the presentation well-organized? Did the order and flow of the slides make sense?
- Were the slides laid out clearly and legibly?

3) Technical Content Score (60%): Factor to consider include:

- Did the team have a clear design architecture and description of the design?
- Did the team develop the design to an appropriate level of detail for this phase of the project?
- Did the team demonstrate a clear technical understanding needed to start executing the project next semester?
- Did the team adequately justify their design decisions and present the alternatives?

4) What are the strengths of the team and what have they done well?

5) What should the team do to improve?

6) If you had to assign a letter grade to the team for their overall performance so far, what would it be (not used in determining the score)?