

Guidelines for Oral Presentations

Presentations of the projects are given during the middle and end of the semester, to an audience of fellow student reviewers, project sponsors, design faculty, and occasional faculty who are following up a project of personal interest to them.

Each team has about 5 minutes/person for a PowerPoint (overhead transparency, if necessary) presentation and questions. All team members must speak and be ready to answer questions. Individual and team grades are given, and everyone in the audience participates in the grading. Talks are judged on the basis of presentation technique and of technical organization and content.

Points of technique include dress, use of display materials and their design for readability, clarity of speech, absence of annoying mannerisms, proper eye contact with audience and smooth transitions between speakers. Content is judged on use of a proper introduction, orderly and connected development of ideas, absence of unnecessary details, proper pacing to stay within the allotted time, and an adequate summary at the close of the talk. Quantitative results are expected whenever applicable.

The oral presentation should follow a format that is similar to the associated written report. Here is a general outline to follow:

Introduction

Objective

Review original design

Describe project build and functional tests

Discuss successes and challenges

Other tests

Recommendations

It is important that your presentation fit into the time allowed. You must rehearse your presentation to get the timing right. A rule of thumb is that you have roughly one slide per minute of presentation time. You convey information through both the *visual* and *audio* portions of the presentation. These two parts of the presentation should complement each other; the words should support the slides and vice-versa. You should avoid having both portions the same words, meaning that you should avoid simply reading the visual materials.

Below are some guidelines for preparing your slides:

- Have all slides prepared ahead of time
- All fonts must be large enough to be easily seen from all points in the room
- Avoid using an excessive amount of text; write brief phrases rather than paragraphs
- Write down all the important points; do not rely on the audience hearing everything you say
- Use bullets with each phrase
- Use diagrams and figures as much as possible; pictures are more interesting than words

- Make the visual materials as interesting as possible; make effective use of font style and color
- Conversely, the presentation should be professional; minimize the use of silly slide transitions, animations, or sound effects
- Test any demonstrations not in-line with the PowerPoint presentation (e.g. playing sound files, movies, or Matlab demos); test these in the presentation room before the final talk if possible

Some general guidelines for your verbal presentation:

- **Be prepared!** Practice, Practice, Practice!
- Speak slowly and clearly
- Face the audience; try to look each part of the audience at some point during the presentation
- Use note cards if necessary, but only as a last resort. A good set of slides should remind you of what to say *in between* the text on the slide
- Avoid fidgeting and excessive movement; it distracts the audience
- Use a laser pointer to make the audience look where you want them to

The important parts of the presentation include:

1. Title slide

The title slide should contain the title of the presentation, the names of the presenters, their affiliations, and the date. Note that a large font size should be used to highlight the more important information. Items are separated by sufficient *white space* so that the slide does not look crowded

2. Overview

This slide shows the audience how your presentation is organized. The parts of the report should be listed using bullets. Avoid incredibly obvious bullets (and the accompanying words), e.g. "First I will give an introduction to our presentation. I will present the project, and conclude with some thoughts on future work." Everyone knows this is the general structure of any talk. It makes things more interesting if you bullet the general technical parts of the talk after a brief slide giving the project statement.

3. Figure slides

Figures are an important part of your presentation. There are many different types of figures and some must be handled differently than others. Block diagrams should be as simple and clear as possible and all fonts must be large enough to be read from all parts of the room. Avoid block diagrams that are too crowded. In presenting a block diagram, you should walk the audience through the diagram. Graph figures must have clearly labeled axes and any important conditions for the data should be listed. Again, you must point out the significance of the graph to the audience. Test your slides beforehand to see if the lines and colors in a graph can be seen and differentiated from the back of a room. Often presenters make the mistake of exporting a result directly from PSpice, Matlab, etc., only

to find that the audience can't tell the difference between regular and dotted lines, or lines with different symbols and colors.

4. Text slides

Slides with only text and/or equations should not be over-crowded. Use short, bulleted phrases rather than long sentences. You can expand on the bullets in the verbal part of the presentation. If you present equations, avoid long derivations but, instead, present "result" equations. Use LaTeX or the Microsoft Equation Editor to make the equations easy to read.

5. Conclusions

The last slides should reiterate the important points that were made during the presentation. You want these slides to contain the information that you want the audience to "take away" from your presentation, and give some suggestions for how you would build on this work in the future.

6. Demonstrations

A demonstration can greatly enhance a presentation by emphasizing important accomplishments and/or allowing the audience to experience what you are talking about. However, the problem with presentations is that they sometimes do not work, leading to an embarrassing time for the presenters. If you do decide to make a demonstration, try to make it as foolproof as possible and have set up ahead of time; there should not be a delay to set up a demonstration. *Test the demonstration beforehand on the PC where you will give the talk!*