

Preliminary Design Review

What is the purpose?

This review is where you present your “design in progress” to the customer and other interested parties for assessment. The goal of this review is (a) to validate your problem definition, (b) dialogue about three or more viable design concepts, and (c) agree on the final design. Your first design review is also an opportunity to impress the client with your competence and professionalism, building confidence and credibility in your team.

What should be covered?

- Present your needs, specifications, constraints, and deliverables.
- Summarize results from project learning.
- Present several viable designs, giving pros and cons of each.
- Provide a well-founded estimate of project costs.
- Outline a project schedule that produces needed deliverables with ample time for product validation.
- Honestly identify all potential problems or risks, and describe how you plan to deal with them.

Who should present?

- Not all team members have to speak.
- The team members chosen to speak should be competent and well-versed in the project, and able to field questions.
- For multi-disciplinary projects, a topic from a particular discipline should be presented by someone from that discipline: ME, EE or Comp E.

How should you dress?

Dress professionally. “Business casual” is typical, but depending on your customer’s “corporate culture” you might want to be a little more formal.

How to schedule? (reserve a one-hour time block)

- a) One week ahead - verify that customer, instructor, and mentors can attend and have a specific time reserved on their calendars.
- b) One week ahead – secure room location and/or make travel arrangements.
- c) Three days ahead – have instructor and/or mentors review your slides.
- d) Three days ahead – email reminder to all participants.
- e) One day ahead – email presentation or website URL to any audience members who will be connected by phone.
- f) Plan to attend at least two other design review in addition to your own.

Presentation Tips

- Be prepared to receive assessment from design review participants.
- Ask participants to forward deep and challenging questions.
- Plan to speak for 15-20 minutes, allowing up to 40 minutes for dialogue.
- Make a nice Power Point or web page presentation.
- Try to make the presentation flow logically.
- Avoid long lists of bullets (like this one!). Your slides should emphasize non-textual aspects of the presentation; e.g.:
 - Pictures
 - Schematics
 - Block diagrams
 - Flow charts
 - Equations
 - Tables
- Put in just enough text to summarize important points and make the slides self-explanatory. (Detailed textual description of your project will go into your end of semester report).
- Be sure your slides are readable from all locations in the room you will use to present. Otherwise, they are useless, and create a bad impression.
- Print out handouts from your slides for the audience to refer to and make notes on. Two or three per page is a good number.
- Assign numbers to your slides so people can refer to them easily, especially if some of the audience members are connected by telephone.

ABET ASSESSMENT OF ORAL COMMUNICATION – PRELIMINARY DESIGN REVIEW

Project: _____

Date: _____

Check status: ___ Underclassman ___ Engineering Senior ___ Engineering Graduate/Customer

	Your Score	Scoring Scale		
		1	3	5
ORGANIZATION AND FLOW COMMENTS:		Order and flow unclear, may be confusing; time usage ineffective	Order and flow clear, parts fit into whole; time used well in general	Order and flow smooth, clear; time usage very good to achieve purposes
LANGUAGE COMMENTS:		Language not refined; terms may be misused; voice unsteady	Language and use of terms proper; voice clear and steady	Language shows knowledge; very good word choice; persuasive
CONTENT COMPLETENESS COMMENTS:		Presentation lacks some key information needed by client	Presentation includes most key information needed by client	Presentation includes all key information needed by client
CONTENT RELIABILITY COMMENTS:		Information is uncertain and causes doubt about its reliability	Information appears correct and reliable; proof lacking	Information proven reliable; key data, sources, derivations given
VISUAL AIDS COMMENTS:		Visuals crude, have some errors, are generally readable; mixed impact	Visuals generally attractive, have no serious errors, have positive impact	Visuals attractive, excellent quality; no errors; achieve desired impact
LISTENING/ RESPONDING COMMENTS:		Interaction with audience limited; not effective in Q/A	Maintains some rapport with audience; generally effective in Q/A	Excellent rapport with audience; very effective listening, answering Q/A
CONFIDENTIALITY COMMENTS: N/A		No awareness or regard for client confidentiality	Aware of need to respect client confidentiality; casual observance	Clearly knows and ensures appropriate client confidentiality
TEAM CREDIBILITY COMMENTS:		Team shows lack of expertise, inability to perform credibly or effectively	Team has most necessary expertise, moderate ability to manage project and personnel	Team exhibits all vital expertise, key skills, poise; able to manage projects, personnel well
CONCEPT QUALITY COMMENTS:		Team partially understands needs of clients; concept not viable, does not address some important criteria*	Team understands main technical and nontechnical needs of clients; concept plausible, addresses most crucial requirements, constraints*	Team fully understands diverse needs of clients, society; concept innovative, viable, satisfies all requirements and constraints*
ECONOMIC ISSUES COMMENTS:		Generally ignores cost issues; concept not cost-effective	Discusses primary cost concerns; concept has economic plausibility	Effectively judges costs, benefits; concept has economic viability

* Incorporate engineering standards and realistic constraints that include most of the following considerations: economic; environmental; sustainability; manufacturability; ethical; health and safety; social; and political.