

Date: November 23, 2017  
 To: ECE 402/406 Class  
 From: Sheaff **AKS** Bruce Segee **BES**  
 Re: Design Review Preparation and Expectations

Design Review will be during finals week and will last one hour. Google Calendar will be used to sign up for a time slot during finals week. An email will be sent out with the URL before the final week of classes. The Design Review team consists of the senior project instructors and possibly other faculty members. Before the design review each team should do the following

	<b>Date Completed</b>	<b>Items to complete BEFORE Design Review</b>
<input type="checkbox"/>		<b>Complete</b> the Team Eval Form - from the web site
<input type="checkbox"/>		<b>Complete</b> Schematics (NOT Microcap/Simulation software)
<input type="checkbox"/>		Update the Block Diagram
<input type="checkbox"/>		Update the Gantt chart
<input type="checkbox"/>		Update the Parts list/Expense report
<input type="checkbox"/>		Complete the Project; The project shall be in good working order
<input type="checkbox"/>		<b>Print</b> source code authored exclusively by team members
<input type="checkbox"/>		Place printed source code in three ring binder
<input type="checkbox"/>		Rehearse meeting the contract demonstration
<input type="checkbox"/>		Understand and practice using the test equipment found in the student laboratories of Barrows. If the scope can do it, team members are responsible for knowing it including test equipment limitations and appropriate application.
<input type="checkbox"/>		Review the Senior Project Design Review Rubric
<input type="checkbox"/>		Make arrangements for a Design Review location
<input type="checkbox"/>		Print this document and fill out the completion dates column

Then, on or before the day of the Design Review do the following

	<b>Time Completed</b>	<b>Items to complete and have on Design Review day but before Design Review</b>
<input type="checkbox"/>		Have completed Team Eval Forms
<input type="checkbox"/>		Print and have the Schematics (NOT Microcap/Simulation software)
<input type="checkbox"/>		Print and have the Block Diagram
<input type="checkbox"/>		Print and have the Gantt chart
<input type="checkbox"/>		Print and have the Parts list/Expense report
<input type="checkbox"/>		Have the project
<input type="checkbox"/>		Have the printed source code three ring binder
<input type="checkbox"/>		Have this document and fill out the completion dates column for this table
<input type="checkbox"/>		Have a computer with access to revision control system
<input type="checkbox"/>		Have an Analog Discovery/Digilent with computer
<input type="checkbox"/>		Be with Standard Barrows test equipment (Cart or lab station). Equipment in research labs may be acceptable with Design Review team and lab owner permission.
<input type="checkbox"/>		Inform the Design Review team of the Design review location
<input type="checkbox"/>		Have this completed document

Upon arrival of the Design Review Team, hand each team member a design packet that consists of the following

	Items to give to the Design Review team upon arrival	Action
<input type="checkbox"/>	Completed Team Eval Form	Collected by Design Review Team
<input type="checkbox"/>	Both Notebooks	Reviewed by Design Review Team
<input type="checkbox"/>	Complete Schematics (NOT Microcap/Simulation software)	Collected by Design Review Team
<input type="checkbox"/>	Block Diagram	Collected by Design Review Team
<input type="checkbox"/>	Gantt chart	Collected by Design Review Team
<input type="checkbox"/>	Parts list/Expense report	Collected by Design Review Team
<input type="checkbox"/>	<b>Printed</b> source code authored exclusively by team members	Collected by Design Review Team
<input type="checkbox"/>	This completed document	Collected by Design Review Team

One printed copy of the source code is acceptable for the entire Design Review team. Projects that include software shall have a working computer present with access to their revision control system.

The project should be set up and ready to operate **before** the Design Reviewer team arrives in one of the Barrows laboratories (TI Lab, Kepware Lab, Whitney Lab, Sheaff's Lab, Comm Lab, Power Lab). Other locations are acceptable with permission and prior arrangement. The Design Review team will ask the design team to **briefly** demonstrate that their project works as stated in their contract. Since time is limited, please be prepared to directly demonstrate that the contract is met quickly and efficiently. **Rehearse the "meeting contract" demonstration BEFORE Design Review.** The evaluation team will need to fully access and handle the project hardware to evaluate the prototyping. The hardware shall not be "hidden" within a box. Software shall be placed in a three ring binder and be logically organized. Time the "meeting contract" demonstration rehearsal and enter the best time below.

	Time to Complete	Item
<input type="checkbox"/>		"Meeting Contract" demonstration

The evaluation team will ask the design team to **briefly** explain the project operation and then move on to an in-depth discussion about the hardware and software design of the project. The Design Review, after all, is **about the DESIGN** not the operation of the device. Team members are, of course, allowed to use their notebooks during the Design Review. Each team will be asked to measure signals on their project using test equipment. The team will have a finite and limited amount of time to make the measurement. The Design Review team will choose and state which equipment will be used during the review. Test equipment used shall be standard lab test equipment found in student laboratories in Barrows and may including the Analog Discovery by Digilent. Projects that include software will need to show and possibly demonstrate their revision control system.

Design reviews will be done in a private space and other students are not allowed to be present during another team's review.