
CPRE/EE/SE 492 Final Poster/Presentation/Report Instructions (Revised 4/1/2021)

The Poster

Administrative

- Check Canvas for the poster deadline;
- Submit poster on Canvas, as a regular group assignment;
- Accepted formats: PDF
- Page Size: 20.75" wide by 37" tall. (9x16 aspect ratio) (Portrait Orientation)
 - If possible, Images embedded in your poster should be 300 pixels per inch.
- Name the file with your team identifier. e.g. sdmay21-06.pdf
- No printing of posters due to COVID. Posters in the future will likely be projected on displays at in-person poster sessions as well as printed in some cases.

Poster Preparation Guidelines

- You may use Google Drawings, PowerPoint, Latex, etc. Make sure you set the size to 20.75" x 37" (portrait orientation) and that it's suitable for reading at a distance of 5 feet. This means that font sizes should typically be no less than 24pt.
- The poster is a long-term presentation of your project. It will be viewed by:
 - Current students
 - Prospective students
 - Faculty members
 - Visitors to the department
- The poster will be evaluated by:
 - Senior Design Committee
 - Industry Review Panel (IRP)
- Make sure the poster contents are readable in 5~10 minutes
 - Posters should be readable from a distance To figure out the right font size, you can print something on a regular piece of paper, and look at it from about 3 yards.
 - You are also encouraged to compare your font sample to previous senior design posters currently on display around Coover hall.
 - Use eye-appealing color combinations The background may relate to the environment of the project, e.g., green for agriculture related project, etc. Wallpapers, if used as background, should not make it difficult to read the main contents
 - Use text boxes with background color contrasting the main poster background
 - Use appropriate poster and text box margins.
 - Be advised that the colors may become slightly desaturated in print. While we will not typically print posters, we may do so for winners of the award, etc.
 - Limited space: please use it efficiently Use more bullets, phrases, etc.
 - DO NOT USE LONG PHRASES OR WIDE TEXT BOXES.

Poster Contents

- Give an overview of the project, e.g., a concept sketch
- Describe the system design, e.g., a block diagram, use case, etc.
- Give a feel of the final product, e.g., screen shots, PCB, final system, etc.

Following is the list of block-items that your poster should contain:

- Basic Information: Project Identifier, Title, Team Members, Faculty Adviser, Client
- Introduction/Motivation: (concise and to the point...)
 - Problem and need statement
 - Solution
- Design Requirements:
 - Functional requirements
 - Non-functional requirements
 - Engineering Constraints
 - Operating environment
 - Relevant Standards
- Intended users and uses
- Design Approach:
 - Concept sketch
 - Block diagram
 - Present main functional modules, and how they together achieve the overall system functionality
 - Security Concerns and Countermeasures (Physical and/or Cyberphysical)
- Technical Details:
 - Details of functional modules, e.g., technology, concerns, limitations
 - For software modules: programming language, libraries, development tools and environments, etc.
- Testing
 - Testing environment
 - Testing strategy (unit testing, system testing, etc.)
 - Test Results
- Project Resources (Budget, Manpower, etc.) – optional – include only if relevant

Final Report Contents

- The final report shall include the complete information about your project:
Revised Project Design
 - You may reuse parts of your project plan and design document, if appropriate.
 - Section describing how your design evolved since CPRE 491
 - Should include functional req's, non-functional req's, standards
 - Relevant Standards (including number and standards organization... note "de facto" if applicable) and how they apply
 - Engineering constraints that apply to your project
 - Security Concerns and Countermeasures
 - Physical Security
 - Cybersecurity
- Implementation details;
- Testing process and testing results
- Placing your work in the context of:
 - Related products
 - Related literature

If/When needed, you should resort to Appendices.

- Appendix I – “Operation Manual”. (required)
 - 2~3 pages or more
 - Step-by-step instructions on how to setup/demo/test the system
- Appendix II: Alternative/ other initial versions of the design (and why they were scrapped in favor of the current version). Here you may include:
 - Versions considered before client’s specifications have changed
 - Versions considered before learning more about the project
 - Versions that resulted in failure to achieve specifications, etc.
- Appendix III: Other Considerations. Here you may include any other points you deem worthy of being mentioned, like what you have learned, anything funny (but relevant) that happened during the design process, etc.
- Appendix IV (optional): Code.

- Be careful when using the logos of companies, associations, external groups, etc. You may not use any logos unless you obtain permission from the owners. Iowa State University allows the use of specific logos on student work. **DO NOT INCLUDE** in your final report **ANY WORK THAT IS NOT YOUR OWN**. This includes paragraphs from cited (or not cited) sources, data sheets for components, etc.
- Also make sure that such information is nowhere on your website. Should you fail to respect these instructions, you may be liable for plagiarism, academic dishonesty, or intellectual property violations.

Presentation and Demo -- the IRP days

- Make sure you check the IRP (Industry Review Panel) presentation and demo schedule on canvas, to identify your presentation/demo day, and your presentation time slot.
- Project Presentation to IRP via Zoom
 - IRP presentation slides should be uploaded on the project website and canvas for grading.
 - All members are expected to present.
 - Final Report should be uploaded on the project website and canvas for grading.
 - You should invite your advisor and client to the presentation.
 - Presentation format: 20-min presentation + 10-min Q&A.
 - Due to a tight schedule, your presentation will be cut off abruptly after 20 minutes.
 - Highlight the work you have done during the design process as well as lessons learned.
 - Recorded demos
 - To save time, each student should introduce themselves and their major as they begin to present instead of doing introductions for everyone at the beginning of the talk. If you desire to have a slide with names and photos of team members, put it as your final slide.
 - Recorded demos are suggested, but live demos are acceptable also.
- Your poster should be available on your website so the IRP may review it.

