

ECE Capstone Project Summary & Review

Fall 2020

(Each team should complete one form per team)

Project Title

Team members & Roles (list each of the members of the team (plus their majors) and the role they played on the team)

Short Project Description

(A few sentences; maybe a picture also)

Requirements

(Describe the requirements of a successful solution. Include metrics and target goals for each requirement.)

Constraints

(Describe three constraints that affected the design of your project and how these constraints shaped your design.

Examples of constraints include accessibility, aesthetics, codes, constructability, cost, ergonomics, extensibility, functionality, interoperability, ethical or legal considerations, maintainability, manufacturability, marketability, performance, policy regulations, power consumption, schedule, standards or usability. For the three constraints that affected your design, list the degree to which it was considered in your project, write a few sentences describing the effect of this constraint on the design.)

Standards

(Describe at least one engineering standard that was used in the design of this project and how it was used)

External factors

(Describe the external factors being considered in your STS research paper. External factors include public health, safety and welfare as well as global, cultural, social, environmental and economic factors.)

Trade-offs

(Describe at least one tradeoff facing your design. Describe at least two approaches that could be used to produce a workable solution to your design goals and what analysis you performed to evaluate the tradeoff.)

Approach 1

Approach 2

Risks

(Describe at least one risk that was considered and how the risk was mitigated. This can be a risk to the project or a risk to society related to the project)

Application of Science, Mathematics and Engineering

(Describe at least three principles of science mathematics or engineering that were applicable to this project. This can be three topics that you learned in classes that impacted your design approach. A few sentences on each of three principles is sufficient.)

Application of knowledge and skills acquired in earlier course work

(This is similar to the one above but here we want you to list at least three courses whose specific knowledge and skills were applied in this project. List three courses and the most relevant topics from

Test Plan

(Include a short summary of your test plan, the results that it produced and your interpretation of the results. This may be a separate document and should also be included in your final project report.)

Acquisition of new knowledge

(For each member of the team, describe one new thing that you had to learn and how you learned what you needed to know, one member per box)

Team Self-Assessment (the following is the first of two copies of an assessment form that will be used to evaluate your project success and team performance. Use the first one to perform a team self-assessment on these aspects. This self-assessment will not be considered as part of the grading for your project)

	5 - Excellent	4	3 - Adequate	2	1 - Unsatisfactory
Requirements & Success Criteria Has the team understood the problem clearly and the requirements for a solution? Are there a well-defined metrics for success with target goals? Does the metric adequately represent the desired success criteria?					
Constraints Were design alternatives and tradeoffs considered with respect to realistic constraints?					
Standards Did the team utilize appropriate standards? Are there other standards that should have been considered?					

	5 - Excellent	4	3 - Adequate	2	1 - Unsatisfactory
<p>Evaluating Trade-offs</p> <p>Is there a well-defined model for evaluating the design and alternatives?</p> <p>Are design choices justified using a model?</p>					
<p>Risk Identification and Mitigation</p> <p>To what extent was the team successful in tracking and evaluating progress and negotiating changes required by unexpected events or other setbacks?</p>					
<p>Overall success of design</p> <p>Is the design well executed? What is the overall evaluation of the design?</p>					

	5 - Excellent	4	3 - Adequate	2	1 - Unsatisfactory
<p>Separation of concerns</p> <p>To what extent did the team succeed in defining and executing their individual roles? Did each team member have a clearly defined set of tasks? Were the functional relationships between the separate team members clearly articulated?</p>					
<p>Team Integration</p> <p>Were the interfaces between the artifacts produced by the separate team members clearly defined? Did each team member understand how their tasks fit in the whole?</p>					
<p>Team Interactions</p> <p>To what extent did the team work together to provide leadership and interact collaboratively and inclusively?</p>					
<p>Overall Team Satisfaction</p> <p>To what extent did the team succeed as a group?</p>					

Comments