EECS 541 Computer Systems Design Laboratory

Project 1: Experience Design Steps

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Steps in the Design Process[1]

1. *Problem Specification:* Define, understand, and analyze the problem.
2. *Additional Constraints:* Understand constraints imposed by client, cost, environmental, or other external factors.
3. *Research:* Gather extensive information about what is known about the problem, and pros and cons of available solutions.
4. *Analyze and Decide:* Explore and analyze different possible alternatives, and decide on your solution.
5. *Justify/Present/Sell:* You may also have to present and sell your design.
6. *Build Product:* Develop/build the product.

[1] adapted from ABET

Project Tasks

- Study the project posters from last year, 2016-17.
- Define/Find your own project OR Select one from last year's list.
- Conduct the following steps for your selected project
  1. Problem Specification
  2. Additional Constraints
  3. Research
  4. Analyze and Decide
  5. Justify/Present/Sell
- Prepare your two/three page proposal and submit it to the GTA.
- Can be done individually or in groups of two.
- Project Goals
  1. Practice the "Steps in the Design Process"
  2. Start thinking about your final capstone project
- Deadline: Monday, September 11, 2017.