

SYEN 4386. Capstone II

Project Proposal, Budget, and Presentation (group submission with peer evaluation)

Project Proposal

Elevator Speech/Abstract ... this is one paragraph that you could give to a person as you take an elevator ride that gives him/her the gist of your project and why he/she should be enthusiastic about it. This is the speech that gets you the opportunity to elaborate if the person is interested. It has to be short enough and compelling enough that your audience can digest it before he/she gets off the elevator (and flees the scene).

Practice this speech on some unsuspecting person before committing to it.

Introduction ... a few paragraphs setting up the relevant background to your project.

Past Work ... this is where you summarize the results from your prototype and why you feel confident in the design you are planning.

Project Description ... the description of the overall deliverable at the end of the semester.

Sub-project Description ... the description of each sub-project that will lead to the overall project outcomes. Each sub-project will need to be staffed by a single engineer. If you have multiple participants in a sub-project, you will be penalized severely. The sub-projects should be genericized, not by name of engineer. In other words,

Sub-project One ... mechanical engineer ... description

Sub-project Two ... electrical engineer ... description

Etc.

Do not limit yourselves to the existing team. If you have needs to augment your overall project with additional labor, you may request it here.

In each sub-project description, indicate individual tasks/deliverables and man-power required to achieve those tasks. Estimate how many man-hours are available for the sub-project.

Each capstone student should allocate 9 hours * 16 weeks * .75 man-hours per hour = 108 man hours to the project.

Remember to allocate fabrication time and reporting time (ie. Each of the assignments for the class should be allocated as a deliverable and the time required to produce those assignments should be included in the project description.)

You can budget external fabrication time through negotiation with the student shop. On complicated parts or parts which require CNC, waterjet, or other tools that students are not allowed to use, you may get shop support. You should make sure you carefully consider submission of shop jobs in a time-frame where they will be completed before the end of the semester.

You can budget external circuit fabrication, although this will need to be book-kept in your budget.

Gantt Chart ... Produce a Gantt chart with tasks and milestones.

Budget

Prepare a spread-sheet using the template provided by the instructor which budgets your entire project for the semester.

This budget will be your spendable money. If you run over budget, you will have to pay for overages out of pocket.

Remember to include shipping and handling estimates and tax.

Items which have already been purchased in capstone I can be book-kept in this budget as can donated items. This may help sell the budget to the funding source. If you have other sources of budget, (e.g., club budget, department budget, external customer budget) this should also be included.

Presentation

The team will present the project and budget to the funding source. Based on this presentation, the funding source will make determinations on how much of the budget will be funded.

If the team needs to rebudget, based on this presentation (ie the funding source did not fully fund the project), then this will be submitted as an ancillary document which will be used in expending the budget, but will not be graded.

Peer Evaluations

Each student will rate his/her peers on the team. This will be included in the final grade.