

## Final Fall Quarter Report

Due: Dec. 13, 2019 at 5:00 pm

Each of your team's projects are at an intermediate stage: after the PDR, but before the CDR and actual deployment of your device. While the CDR is the next formal check-point in the system engineering process, it is an appropriate time now to do two things:

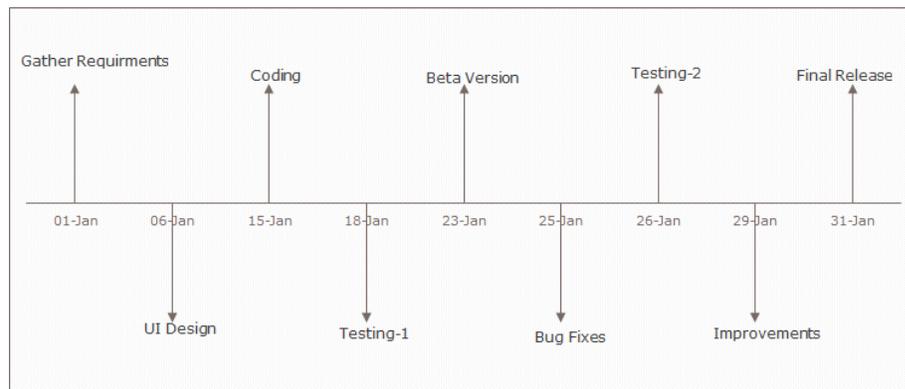
- Establish a time a set of milestones and timelines for the next stage of the development process,
- Provide a progress report on your development activities to date.

Hence, your final activity for CS/EE/ME 75(a) is to create these "structured artifacts," depending upon your level of your course units.

### All Unit Levels: Milestone and timeline chart.

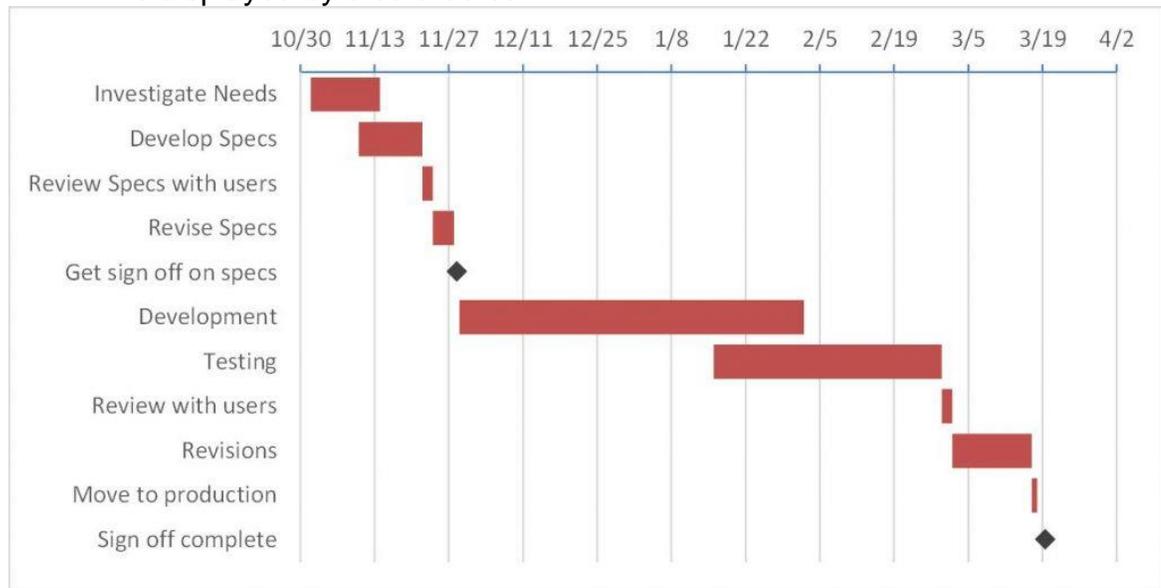
Starting next quarter, every student must be involved in a development project. Hence, in order to better prepare for next quarter's activities, every team should prepare a *Milestone Chart*. These charts are also called *Timeline Charts*. There are many different possible formats for such a chart. Your team should feel free to use a format that is appropriate to your team's project or personality. Here are two suggested formats:

1. **A table:** Each line of the table will have 3 entries:
  - a. A Date when the "Milestone" will be completed
  - b. A Name for the milestone
  - c. A Description of the milestone, and perhaps key activities needed to complete the milestone
2. **A Graphical Timeline.** Timelines include the same information as a table, but in a more readily viewable format. In both approaches, "ruler" marked at regular time intervals is included. The time at the ruler starts at the beginning of the



period (in our case, the first week of the winter quarter), and ends at the end of the period (in our case, then end of the winter quarter). Regular time intervals, as well as key times (e.g., Feb. 17 Urban Circuit start) are marked on the ruler with “tick marks.”

- a. In one style (see the first figure), your major development milestones are then marked on the ruler, with a description of the milestone in a separate table or set of notes below the graphical region.
- b. In the **Gantt Chart** style (see the second figure), your major milestones and development check-points are displayed along the vertical axis below the ruler, and the expected development period to complete that milestone is displayed by a colored bar.



While you can use any of the styles described above (or others), note that I prefer the Gantt chart style.

Your team need only complete one chart for the entire team. Please place the milestone chart on your team's GitLab repository, under the "homework" directory.

**6+ Unit Levels: Progress Report.** If you are taking the class for more than 3 units, then you have been developing actual prototypes, or carrying out system analysis. The members of your team working at the 6+ unit level should prepare a report which summarizes the current status of your project. At a minimum, your report should include the following:

- **Recap of project goals.** Just a short summary of your team's main project focus, which a special highlight to any changes in focus that have developed over the course of the quarter.
- **Current Status of the project.** This should include a description of
  - Any models that have been developed (e.g., Solidworks models)

- Prototypes that have been completed, or are in progress (including photos of hardware)
- Analyses that have been started or completed. What have you tried to analyze and why? What did you find?
- Summary of data. What data have you gathered? Organize the data so that useful interpretations and understanding of the data can be gleaned from any charts/plots of the data.
- **Next Steps and open issues.** What are the critical things which must be accomplished in your project in the near future so that you can meet your goals? Note that you do not need to repeat the information in the timeline. But, your discussion of the next steps should focus on the really critical objectives that need to be considered next quarter. Also, are there still open questions to consider?

Your team need only prepare one such document for the entire team. Like to milestone report, please leave a copy of the this report in your team's GitLab directory.