ME450: Gantt Chart Handout

The basic purpose of a Gantt Chart is to break a large project into a series of smaller tasks in an organized way. The chart shows when each task should begin and how long it should take. The left-most column lists each of the tasks in chronological order according to their start time. The remaining columns show the timeline (often shown in weeks, but use whatever units are convenient for your project). For each row, a task is listed and a line in drawn through the timeline for the weeks during which that task will be addressed.

At right is a simple example of what a Gantt Chart looks like. In this chart, a rough outline of what task are to be accomplished up to the first design review on October 9. This is not given to show you how you should organize your own teams time so much as to provide a sample Gantt Chart for illustrative purposes. Notice the example uses the class lecture periods instead of weeks in order to organize the timeline. Also notice how some tasks take longer than others, so some weeks have more than one associated task. For example, on the time period beginning September 18th, the team will be continuing the information gathering started a week prior and begin shopping around for a product for the reverse engineering exercise on October 2.

Tasks	9/6	9/11	9/13	9/18	9/20	9/25	9/27	10/2	10/4	10/9
Form project team	■	■								
Information gathering		■	■	■	■	■	■	■	■	■
Purchase reverse engr'g product				■	■					
Describe user experience					■					
Initial QFD / problem definition					■					
Concept generation						■	■	■	■	■
Functional decomp. analysis							■			
Create Pugh Chart							■			
Perform reverse engineering								■		
Summarize info gathering results								■		
Finalize Design Review #1 report								■	■	■
Create Gantt Chart									■	
Team Roles worksheet									■	
Prepare DR1 presentation									■	■
Design Review #1										■

So what kinds of tasks should you include in your own Gantt Chart? That is completely up to your project. Some teams will perform many of the same tasks, but the time spent on them will vary greatly. Some projects focus on creating a new idea with little prototyping time while the converse is true of others. It is up to your team to decide how best to break your project into more concrete steps. To help you get started though, here is a list of categories that will help you determine if you've walked through the entire design process for the Gantt Chart you will be providing in your first Design Review report.

Information Gathering: user interviews, expert interview, personal experience, patent search, market research, reverse engineering, …
Problem Definition: problem statement, characteristics of problem, characteristics of solution, …
Divergence: brainstorming, morphological analysis, functional decomposition, …
Transition: Pugh chart, QFD, sketch models, user feedback, …
Convergence: analysis, detailed configuration, optimization, user feedback, …
Prototyping: build rough prototype, test rough prototype, plan the build, collect materials, start machining, physical testing, user testing, …
Documentation: proposal, progress report, final report, presentations, …