Course Timeline

The course is broken up into five weeks. Each week has a specific focus, or theme. The themes are ordered to follow the general phases that a real-world project goes through.

For each week there will also be a set of required (gradable) deliverables, as well as a major evaluation (in the form of a test, a demonstration, or other similar event). Details on the deliverables for each week are listed in the weekly plans.

Overview of Weekly Activities

Week 1 (Apr 21): Team Building / Understand the Problem

The goal of the first week is to jumpstart the project activity. Students will self-organize into teams on the first day. The next couple days will involve significant time researching and understanding the problem (challenges). Team building workshops will be held for each group to get started, and impress upon the team the importance of (a) thinking creatively, and (b) working as a team.

Teams will work to understand the problem(s), to document these, and to brainstorm possible solutions.

Week 2 (Apr 28): Project Planning and Technology Introduction

In the second week, teams attend project planning workshops where they will learn how to construct a detailed project plan for a large project. In addition, students will continue to familiarize themselves with the technology, and they will prepare a project plan for their actual project.

By the end of week two all teams should have a complete understanding of the problem, have a rudimentary understanding of the technology, as well as a plan that details the work tasks, deliverables, responsibilities, and critical path for the project.

Week 3 (May 5): Initial Prototype Development

Week three is the first week where that teams have to design and build a robot to solve a mission. Essentially, teams will start executing their project plan by working towards completion of a single mission by end of week.

Week 4 (May 12): Implementation: Code-Integrate-Build-Test Cycles

The fourth week will be the primary development week, marked by the development and integration of a larger number of challenge solutions. The team will be executing their project plan, coding, building, and testing their project.

Week 5 (May 19): Final Competition

The main event of the last week is a major competition, in which all teams compete to earn points that go towards their final mark. At the start of the week they will work to perfect and finalize their projects.