Course Objective

The primary objective of this course is to train students to work in teams during the planning and execution of a technology related project.

Learning Outcomes

Upon successful completion, the student will be able to:

1) Plan a project, including:
   - identify work tasks as needed to complete an unclear, possibly ambiguous project
   - reduce the scope of work on a project such that the project will meet fixed time constraints
   - select a project lifecycle for use on a project
   - plan and schedule project work tasks

2) Manage a project, including:
   - work proactively to find and use external resources
   - formally track and report on the progress of a project
   - deal with issues and crisis that emerge during project execution

3) Identify and analyze system requirements:
   - identify and document system requirements
   - clarify ambiguous requirements
   - devise solutions that meet documented requirements
   - document solutions to enable further design and implementation

4) Apply teamwork based strategies to meet stated tasks and objective, including:
   - collaborate with other members a team to share information and work
   - trust and rely on the work of others
   - build on the strengths of others
   - allocate work so that all team members are equal participants in the project
   - manage conflicts including clashes of personalities and differences of opinions

5) Embrace a new technology, including:
   - independently research and learn a new technology
   - independently research and understand a problem domain
   - proactively establish a development environment that will support a project
   - be creative in the application and use of technology to solve problems

6) Apply previously learned skills to a new problem, including:
   - apply software design principles and techniques in the development of a project
   - adopt and use consistent coding and documentation standards on a project
   - iteratively debug, test, and revise the implementation of a solution

7) Deploy a working system, including:
   - document the design and implementation of a solution so that it can be evolved in the future
   - install and run a tested solution in a production environment