CARNEGIE MELLON UNIVERSITY
HEINZ COLLEGE

PROJECT MANAGEMENT – 94-813
August 2017

Course Syllabus and Outline

Instructor
Jan McConchie [jan.mcconchie@gmail.com]
Adjunct lecturer

Office Times
by appointment.

Lectures
Thursday, 3.00pm – 5.50pm Classroom 1

Review Sessions
None

Course Description
Many organizations use project teams to carry out various work assignments. A project manager's job is to ensure the successful completion of a set of tasks, which define a project within specified budget and time. Project members usually come from different parts of an organization and each may be members of two or more projects.

This course is designed to give students an appreciation for the importance of project management. They will learn about different responsibilities of a project manager, including project tasks definition, progress, cost and resource, stakeholder, and risk management. The concepts discussed in class are further practiced through a team project, where students examine various aspects of a real-life project.

This course will review the PMI Project Management Body of Knowledge but students interested in sitting for the PMP certification exam are recommended to make additional preparations.

Course Objectives
Upon completion of this course, the student will be able to:
- Identify the key stakeholders of a project
- Organize the project into manageable parts
- Develop project budgets and schedules
- Understand and plan for the risks in project
- Use graphs and charts to outline a project process
- Use formal and informal methods to monitor project status
- Develop and present a project plan
- Use Microsoft Project to create a project plan and monitor progress

Course Performance Evaluation
Participant performance will be evaluated based on a team project, assignments, and class and Blackboard forum contribution, as follows:
- Team Project and Report 38%
- Assignments 52%
- Class and forum participation 10%
Required Readings

There are no text books for this course. The main reference books are:


Copies of these books are in the reading area for reference, and in the library for borrowing. Furthermore, students will be required to read case studies which will be used for classroom discussion. Such cases will either be distributed in the class or available on BBoard.

Students will be required to use the Microsoft Project software to develop their project plans, progress reports, etc. There will be a short introduction to this tool in the class.

Topics Covered

- Definition of a project
- Life cycle/stages of a project
- Differences between projects
- Causes of failure
- The definition, importance and benefits of project management
- The role of the project manager
- Differences between IT project management and other project management
- Importance of project context
  - Organization
  - Culture
  - Legal/regulatory requirements
  - Level of quality required
  - Other factors
- Project Management Institute (PMI) 9 knowledge areas
- Project scope development and management (scope, time and budget triangle)
  - Scope vs. Time management
  - Project estimation (including top down and bottom up approaches)
  - Importance of adjustment factors
  - Importance of historical detail
- Project planning and organization
  - Importance of project size (in estimation of productivity, error rates and other factors)
  - Importance of planning and organization
  - Definition of the plan
  - PMI on planning
  - Work breakdown structures
  - Designing an organizational chart and governance model
  - Network Diagram, Gantt Chart
  - The Critical Path: The Longest Path Through A Project Network
- Management deliverables
  - Vision
  - Scope statement
  - Strategy/approach
  - Estimates/staffing requirements
  - Budget
  - Plan/work breakdown structure
  - Project organization chart
  - Risk analysis/mitigation
  - Status reporting process
  - Issue tracking and resolution
  - Communications plan
  - Project estimation
  - Benefits realization