Planning and Management of Software Projects 2009-10

Last Updated Thursday, 08 March 2012

2009-10 Course Syllabus Alerts 9.3.2011 - The Web page of 2010-11 Course is NOW open. This Web page is now closed. The NEW Web page of the 2010-11 Course is available here. Description

The course provides an overview of the roles, responsibilities, and management methods of the technology project manager. The course assumes no prior knowledge in management techniques and is intended to teach students how to develop approaches and styles of management for software projects. The course assumes a basic understanding of analysis techniques.

- To provide students with a clear understanding of the unique risks, issues, and critical success factors associated with technology projects
- To introduce students to the role and function of project management
- To explain the stages and process of the project life cycle
- To understand the various techniques for planning and managing a technology project
- To examine basic methodologies for software design, development, testing and implementation
- To examine various techniques for managing a software development team
- To understand the need and techniques for managing users and user expectations
- To learn project planning techniques through the use of Microsoft Project Grading
- 35% Midterm test
- 35% Final test
- 30% Homework & Course Project

NOTE for students that cannot take midterm and final exam during the term: these students are expected to take both the tests in any exam session and to submit homeworks one week before the choosen exam session Textbooks

- Rapid Development, McConnell, Steve, Microsoft Press, 1996, ISBN 1-55615-900-5.
- Information Technology Project Management, Schwalbe, Kathy, 2nd ed., Course Technology, 2002, ISBN 0-619-03528-5 (this text includes a 120 day evaluation copy of MS-Project 2000).

Notes

- For those students that follow the classes, the slides published on the class web site may be sufficient.
- During the term readings from online resources will be also assigned. Students will be given the appropriate URLs during class and these will be listed on the class web site. Software
- MS Project http://office.microsoft.com/project available in A3.1

- Gantt Project http://www.ganttproject.biz/(opensource alternative) Classes

Class

Topic

Optional Reading/Homework

Class 1

12/3/2010

Course Overview [PDF]

- Course Introduction
- Project Management (PM) Fundamentals
- The PM field and job market
- People, Process, Product, Technology
- 36 Classic Mistakes [LINK] and
a case study [LINK]

Class 2

19/3/2010

Overview of Project Management [pdf]

- PMI Processes
- Software project phases
- Organizational structures

- Project charter
- Statement of Work (SOW) Readings (prior to this session):
- McConnell: chapters 1-4
- Schwalbe: chapters 1-2, 11 "Project Procurement Management" (336-345)

Class 3
26/3/2010
Planning Phase [PDF]

- Development lifecycle models
- Matching lifecycles to projects
- Project plans Readings:
- McConnell: 7 "Lifecycle Planning"
- Schwalbe: 3 "Project Integration Management" (62-67), 4, "Project Scope Management" Homework 1 Due:
- Project Charter for your project

Class 4
9/4/2010
Work Breakdown Structures & Estimation[PDF]
- Work Breakdown Structures (WBS)

- Estimation
- Mid-term Exam Preview (classes given so far) [pdf] Readings:
- McConnell: 8 "Estimation"
- Schwalbe: 6, "Project Cost Management" (157-175)

Class 516/4/2010

Scheduling [PDF]

- Project network diagram fundamentals
- PERT techniques
- Gantt charts
- Critical chain scheduling
- Mid-term Exam Preview (of class 5)
Readings:
- McConnell: 9, "Scheduling"
- Schwalbe: 5, "Project Time Management" Homework 2 Due:
- Initial Work Breakdown Structure (WBS) for your project

Class 6
23/4/2010

Hands-on MS Project [PDF]
- Using MS Project
- additional material [mpp]

- Example
- Example Baselined
- Example Leveled
- Example Overallocated

30/4/2010 Mid-Term Exam

Class 77/5/2010 Risk and Change Management [PDF]
- Risk Management
- Featur-set Control
- Change Control Readings:
- McConnell: 5 "Risk Management", 14 "Feature-Set Control"
- Schwalbe: 10, "Project Risk Management", Appendix A "Guide to Using Microsoft Project 2000" (447-477)

Class 8

14/5/2010

NEW
Development management[PDF]
- Team models
- Capability Maturity Model (CMM)

- Requirements process Readings:
- McConnell: 11 "Motivation", 13 "Team Structure"
- Schwalbe, 8, "Project Human Resource Management" Homework 3 due:
- Top 10 Risk List for your project (1 page)
- Template Available Here [doc]
Class 921/5/2010
NEW System test process [PDF]
- Test specifications
- Black box and white box testing
- Test scripts
- Unit and integration testing
- Acceptance test specifications
- Test tools Readings:
- Schwalbe: 7 "Project Quality Management"

Class 10

28/5/2010 Project Control [PDF]
- Progress Monitoring
- Status reporting
- Earned value analysis Reading:
- McConnell: 17-19
- Schwalbe, 6 "Project Cost Management" (175-184), 9 "Project Communication Management", 15 "Controlling"
Homework 4 DRAFT (OPTIONAL) due:
- Develop and submit an initial copy of the project plan (limited to tasks & milestones) for your project

Class 11

11/6/2010 Final Phases & Project Success [PDF]

- Project Recovery
- Cutover/Migration
- Post Project Reviews
- Closing
- Management support
- Expectations
- Success metrics
- Final exam review Readings:
- McConnell: 16 "Project Recovery"
- Schwalbe: 16 "Closing"

Class 12

18/6/2010 Team Work on Homeworks and Final Exame preparation

25/6/2010

Final Exam Homework 4 Due:
- Develop and submit a copy of the final project plan (include durations, resources, links, successors & predecessors) for your project Class Projects and Policies
- Homework Policy: Unless otherwise noted, homework is due in the class following the assignment. Homework should be printed and legible.
- Team Project Policy: maximum 3 people per team Acknowledgements
- This course is largely based on Prof. John Musser class notes on "Principles of Software Project Management"
- Original information is available at http://www.projectreference.com/

- Reuse and republish permission was granted.