

Planning and Management of Software Projects 2010-11

Last Updated Thursday, 01 March 2012

2010-11 Course Syllabus Alerts

9.3.2011 - The Web page of 2011-12 Course is NOW open. This Web page is now closed. The NEW Web page of the 2011-12 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% Homeworks

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 chosen exam session. Home works

Students are required to work in team (up to 3 people) and to prepare 4 homeworks during the course.

- Homework 1 (10 points) due Class 3 - Project Charter for your project [template]
- Homework 2 (5 points) due Class 5 - Initial Work Breakdown Structure (WBS) for your project
- Homework 3 (3 points) due Class 8 - Top 10 Risk List for your project
- Homework 4 (12 points) due Final Exam - Develop and submit a copy of the project plan (include durations, resources, links, successors & predecessors) for your project

Submission will be held through the system reachable at this link

<https://www.easychair.org/conferences/?conf=pmsp2011> 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 A3.3
- Gantt Project [http://www.ganttproject.biz/\(opensource alternative\)](http://www.ganttproject.biz/(opensource+alternative)) Classes

Class

Topic

Optional Reading/Homework

Class 1

18/3/2011

Course Overview [PDF]

- Course Introduction
- Project Management (PM) Fundamentals
- The PM field and job market
- People, Process, Product, Technology

- 36 Classic Mistakes [LINK /PDF] and a case study [LINK] annotated with classic mistakes [PDF]

Class 2

25/3/2011 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

8/4/2011 Planning Phase [PDF]

- Project Phases
- 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
- please use this template [doc]

Class 4

15/4/2011 Work Breakdown Structures & Estimation[PDF]

- Work Breakdown Structures (WBS)
- Estimation Readings:
- McConnell: 8 "Estimation"
- Schwalbe: 6, "Project Cost Management" (157-175)

Class 5 29/4/2011

Scheduling [PDF]

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

Class 6

6/5/2011

Hands-on MS Project [PDF]

- Using MS Project
- additional material [mpp]

13/5/2011 Mid-Term Exam

Class 7 20/5/2011 Vodafone Youniversity Contest [LINK]Risk and Change Management [PDF]

- Risk Management
- Feature-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

27/5/2011

Development management[PDF]

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

Class 910/6/2011

Project Control and Resource Levelling [PDF]

- Progress Monitoring
- Status reporting
- Earned value analysis (eva-ex1, eva-ex2, eva-mpp)
- Resource Levelling in MS-project [mpp] Reading:
- McConnell: 17-19
- Schwalbe, 6 "Project Cost Management" (175-184), 9 "Project Communication Management", 15 "Controlling"

Class 10

17/6/2011 Final Phases & Project Success [PDF]

- Project Recovery
- Cutover/Migration
- Post Project Reviews (example)
- Closing (example)
- Management support
- Expectations
- Success metrics
- Final exam review [PDF]

Readings:

- McConnell: 16 "Project Recovery"
- Schwalbe: 16 "Closing"

24/6/2011

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.

