

CS 567 Software Engineering Project Management

Tentative Syllabus Spring 2009

Instructor: John Tanik, Ph.D.

Course: CS 567

Office: 125N

Contact: TBA 260-481-6343

Office Hours: Afternoons M-F or by appointment

Classroom: 131/111 lab

Class Time: 6:00-8:45pm

Course Objective: Introduce software engineering principles to industry work, focusing on project management domain

Course Textbook: Software Engineering: 8th Edition by Ian Sommerville
(ISBN 978-0-321-31379-9)

Recommended Supplementary Material:

Software Project Management, A Real-World Guide to Success by Joel Henry
(ISBN: 0-201-75865-2)

Optional: CMM Implementation Guide, Choreographing Software Process Improvement by Kim Caputo
(ISBN: 0201379384)

Course description: ACS 567 - Software Project Management

Consideration of managing the software development process and implementing information technologies. Advanced material in project planning, cost and time estimation, mechanisms for monitoring and controlling projects, quality assurance, change management, and leadership and team building. Other topics include project tracking, managing multiple projects, data sharing, communicating plans, and transnational considerations in areas such as staffing and vendor support. Students apply project management software to case studies (Coding is not required for project work).

Course Work: Select chapters and supplementary reading assignment handouts focusing on software project management will be assigned and the pace of work will be adjusted according to the needs of the class. Topics in the Software Engineering Body of Knowledge (SWEBOK) will be introduced to support your case study and group work, as needed. Lectures will cover the topics below, as they support the project. Textbook purchase is not required but recommended. Project support topics include object-oriented design concepts and SWEBOK material:

Software Engineering Body of Knowledge (SWEBOK) Knowledge Areas (KAs)

- Software requirements
- Software design
- Software construction
- Software testing
- Software maintenance
- Software configuration management
- Software engineering management
- Software engineering process
- Software engineering tools and methods
- Software quality

Grading Policy: 100% total; extra effort will be rewarded; maintain electronic copies

20% Final Exam (Given in class)

20% Midterm Exam (Given in class)

30% Project (Topic and requirements will be based on area of interest and skillset)

30% Participation (All assignments are due within 1 week unless otherwise noted)

Grading scale:

A: 90-100

B: 80-89

C: 70-79

D: 60-69

F: <60

Examinations

A practice midterm will be provided to help prepare you for the testing format. Some quiz grade grades may be dropped, depending on the frequency of testing. Absence from an examination or quiz requires appropriate documented notification to be excused.

Participation

In addition to regular coursework from textbook and online materials, various modeling software and software systems engineering theory and technology will be applied, in addition to reading assignments and case studies. Various work to practice material will be included, e.g. in class assessments, presentations, strategic analysis and optimization discussions, and homework, as needed.

Project

You may be continuing a project from a previous semester or choose to start a new project with new groups. Student collaboration and teamwork on projects are encouraged with many opportunities to demonstrate leadership and specialization in diverse areas.

Documentation

Every work product and assignment should be properly documented, including homework and project, in order to acquire industrial best practices. This means maintaining electronic copies on CD and organized in a divided binder form (as shown in class). It is important that every student document their individual contributions throughout the project lifecycle in terms of task and time completed to prepare you for industry. For project:

- Previous documentation – if any
- Proposal describing what you intend to do in your given time-frame
 - o According to engineering criteria
 - Time
 - Cost
 - Quality
 - o List software you intend to use
 - MS Office project for Gantt Chart
 - C-map tools for preliminary concept mapping (download free software at www.cmaptools.com)
 - Any other software, e.g. Matlab, Excel, etc.
 - Your coding environment, e.g. Java, C++, .Net, etc
- Weekly log describing what you have done any given week
 - o Includes any changes to plan with justification
 - o Provides graphical references
- Graphical Gantt Chart tracking progress of project
 - o Functional Requirements are mapped to tasks
 - o Tasks are mapped to member roles

- Updated documentation describing what you have accomplished and what you intend to accomplish this semester.
- Technical Report/Conference Paper describing your project in IEEE format
- Appendix
 - o Slide Presentation
 - o Optional website
 - o Code, if any
 - o Misc
- References consulted
 - o Textbook
 - o Papers
 - o Online
 - o Associates
- Conference paper produced based on technical report
- Periodic progress reports
 - o Includes updated Gantt chart
 - o Log
- Risks assessment

Attendance

Students are responsible for all information covered in class and attendance will be taken. Excused absences are allowed, as needed.

Students with Disabilities

If you have a specific disability that qualifies you for academic accommodations, please notify me.