

CSCI 521 - Software Project Management

Spring 2012

Department of Computer Science and Quantitative Methods
College of Business Administration
Winthrop University

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Office Hours: Mondays and Wednesdays 1:00-4:00; Tuesdays 10:00-12:00
see homepage for weekly schedule

Course Description

An introduction to the economics, metrics and management strategies required to plan and successfully execute a large software development project. The fundamentals of software engineering, requirements, design and realizations are utilized to focus both software professionals and project managers on process models and practices.

Course Objectives

After successfully completing this course, the student will

- understand the strengths, weaknesses, and applicability of various development models
- have a basic knowledge of project estimation tools and techniques
- understand the role of metrics (both process metrics and product metrics) in software project management
- be able to create a schedule for a complex project
- be able to conduct risk analysis and form a risk management plan
- understand fundamental principles of project team organization
- understand and be able to apply fundamental principles of software quality assurance, such as formal reviews and source code testing
- understand the role and contents of various project documents, as well as established industry standards for such documents, such as SRSs, SOWs, etc.

Prerequisite

Graduate Standing or CSCI 475

Textbook

none, see course web site for lecture notes and online resources

Attendance Policy

Exam material will be based on class lectures and discussions. Hence, it will be extremely difficult to successfully complete the course without coming to class.

Grading Policy

Letter grades will be based on a 10point scale. In other words,
90.00 to 100 is an A,
80.00 to 89.99 is a B,
etc...

Undergraduates:

Homework:	15%
Exam #1:	20%
Exam #2:	20%
Final Exam:	25%
Paper and Presentation:	20%

Graduates:

Homework:	10%
Exam #1:	15%
Exam #2:	15%
Final Exam:	25%
Paper and Presentation:	35%

Paper and Presentation

Each student will select a topic that relates to the content of this course and write a research paper on that topic. The choice of topic is left to the student, mostly. The course instructor must approve the topic. The topic must be one that is not otherwise substantially covered in this course or another course. You may choose to write a review of case studies, or a review of available software tools, or you may be interested in...

For undergraduates, the paper must be at least 5 double-spaced pages, not including figures, and must use at least three different sources.

For graduate students, the paper must be at least 15 double-spaced pages, not including figures, and must use at least six different sources. Graduate student papers are expected to contain a significant amount of analysis.

Each student must present her/his findings in class. Presentations for undergraduates should take 15 to 20 minutes. Presentations for graduate students should take 25 to 40 minutes.

Topic Approved by Instructor:	March 27
In-Class Presentations:	April 10, 12, and 17
Paper Due:	April 19

COLLEGE OF BUSINESS EXPECTATIONS REGARDING PROFESSIONALISM IN THE CLASSROOM

The College of Business Administration is a professional organization with a well-defined and widely disseminated mission of student development. Accordingly, each class represents a gathering of professionals and professionals-in-training. The instructor's job as a professional is to deliver quality instruction in each class, to start and end each class on time, to be responsive to student perspectives, issues and questions, and to treat each student respectfully. The student's job, as a professional-in-training is to be prepared for class, to be on time, to attend all classes, and to be respectful of others in the classroom.

In accordance with and pursuant to these roles the following guidelines were established to specify to students (both present and prospective) faculty expectations regarding their behaviors

1. **Students will attend all class meetings.** There are no automatically "excused" absences. In the event that you will be unable to attend a class session, you should inform your professor in advance as a matter of professional courtesy just as you would/should with an employer.
2. **Students will arrive in advance of the beginning of the class session.** Late arrivals are disruptive, inconsiderate and unprofessional. Professors may make arrangements for delinquents, but are not obliged to do so. Those not present at the beginning of the classroom period will be considered absent.
3. **Students will not converse among themselves during class except when instructed to do so.** When a student creates a disturbance in the classroom, instructors will either ask the student to desist immediately or speak to the student at the conclusion of class. Repeat offenders will be sanctioned.
4. **Students will not leave class before its conclusion.** Early departures are disruptive, inconsiderate and unprofessional. Professors may make arrangements under some circumstance, but are not obliged to do so. Those not present at the conclusion of the classroom session will be considered absent.
5. **Students will have procured textbook/materials prior to the first class.** Instruction will begin with the first class meeting and consume the remainder of the class period.

STUDENTS WITH DISABILITIES

Winthrop University is dedicated to providing access to education. If you have a disability and require specific accommodations to complete this course, contact the Office of Disability Services (ODS) at 803-323-3290. Once you have your official notice of accommodations from the Office of Disability Services, please inform me as early as possible in the semester.

SYLLABUS CHANGE POLICY

The grading and attendance policies for this course, as described above, will not change and are adhered to strictly. The schedule of class meetings, listed below, may change due to unexpected events such as class cancellation due to weather.

GENERAL EDUCATION CREDIT

This course meets the requirements for inclusion in the Logic/Language/Semiotics section of the General Education Program by: 3.4 using computers competently

ASSESSMENT

No student performance metrics from this course are used to assess any degree program.

Tentative Schedule CSCI 521 - Spring 2012

Date	Topic
Jan 10	Course Overview
Jan 12	Software Failure, Software Development Processes
Jan 17	Understanding the Customer
Jan 19	Your Project Team, Roles
Jan 24	Organization, Leadership, Responsibility
Jan 26	Defining Activities and Work Packages
Jan 31	Estimating Time and Money
Feb 2	COCOMO, and review
Feb 7	Exam One
Feb 9	Scheduling
Feb 14	Requirements Engineering I
Feb 16	Requirements Engineering II
Feb 21	Risk Analysis
Feb 23	Metrics o'plenty
Feb 28	Test Management
Mar 1	Configuration Management
Mar 6	Exam Two
Mar 8	SQA - Concepts and Processes
Mar 13	<i>Spring Break</i>
Mar 15	<i>Spring Break</i>
Mar 20	SQA - Work Procedures
Mar 22	SQA - Inspections and Formal Technical Reviews
Mar 27	SQA - Preventive Actions
Mar 29	SQA - Industry Quality Standards
Apr 3	Project Tracking
Apr 5	maybe no class
Apr 10	Student Presentations
Apr 12	Student Presentations
Apr 17	Student Presentations
Apr 19	Review

Final Exam -- Saturday April 28 at 3:00pm