CS673 Software Engineering

Department of Computer Science
Metropolitan College
Boston University

Syllabus

Instructor Information

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Course Information

Prerequisites
MET CS 342 **and** at least one 500- level computer programming-intensive science course or instructor's consent.
(This course is not about programming. However programming skill is the prerequisite. You need be familiar with **OO concept** and **Java** before taking this course.)

Reference Book:

Preferred SE Textbook:

- Eric Braude, Michael E. Bernstein. ***Software Engineering: Modern Approaches (2rd Edition).***Wiley. *(ISDN:978-0-471-69208-9)*

Other SE Textbooks:

- Bernd Bruegge and Allen H. Dutoit. Object-Oriented Software Engineering: Using UML, Patterns and Java
- Shari Lawrence Pfleeger, Joanne M. Atlee. Software Engineering: Theory and Practice
- Roger S. Pressman Software Engineering: A Practitioner's Approach
- Hans Van Vilet. Software Engineering: Principles and Practice
- Armando Fox and David Patterson. Engineering Long-Lasting Software: An Agile Approach Using SaaS and Cloud Computing
- Frederick P. Brooks, Jr. The Mythical Man Month
- Robert C. Martin. Agile Software Development, Principles, Patterns, and Practices
- Please see the additional SE books on blackboard reference page.

Please check blackboard learn (https://learn.bu.edu) for all materials

Description (from Catalog)

Techniques for the construction of reliable, efficient and cost-effective software. Requirements analysis, software design, programming methodologies, testing procedures, software

development tools and management issues. Students design and implement a system in a group project. Laboratory course.

Objectives

At the end of the semester, students are expected to

- Have a fundamental understanding of major software process models and activities in software process.
- Be competent in applying the software development process and best practices in real-world team-based project to produce high-quality software on time.
- Be comfortable with CASE (Computer Aided Software Engineering) tools such as UML tool, testing tool, version control tool etc.
- Be competent in effectively communicating with team members and customers.
- Be comfortable with formal project presentation.

Course Requirements

- Class participation
- Reading and study
- Semester-long project
- Quizzes and Exam

This course is featured with a semester-long team-based project. Each team should have at about 4-6 students. Every member of the team is expected to contribute a roughly equal share to the project.

Course Polices

Grading Policy

The grade that a student receives in this class will be based on class participation, in-class exercise, quizzes, project and the exam. The grade is breakdown as shown below. All percentages are approximate and the instructor reserves the right to make necessary changes.

- 5% on class participation
- 10% on exercises and quizzes
- 60% on semester-long project
- 25% on final exam

Letter grade/numerical grade conversion is shown below:

A (95-100) A- (90-94)
B+ (85-89) B (80-84) B- (79-77)
C+ (74-76) C (70-73) C- (65-70)
D (60-65) F (0 – 59)

Attendance Policy

Attendance is expected at all class meetings. You are responsible for all material discussed in class. In general, no makeup quizzes and exam will be given unless an extremely good, verifiable reason is given in advance. Please respect your classmates by silencing your cell phones and other electronic devices before class begins.

Assignment Late Policy

All project deadlines are firm. A deadline miss means zero for the grade of that phase. It is the students' responsibility to keep secure backups of all working products.

Academic Integrity

Academic conduct in general and MET College rule in particular require that all references and uses of the work of others must be clearly cited. All instances of plagiarism must be reported to the College for action. *For the full text of the academic conduct code, please check* http://www.bu.edu/met/for-students/met-policies-procedures-resources/academic-conduct-code/.