

Software Engineering (CSE435)

Fall 2007

Instructor: Dr. B. Cheng, 1129 Engineering Bldg., chengb at cse

Office Hours: M,W: 11:45-12:15 or by appointment

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Office Hours: TBD

Class: M,W: 10:20-11:40, 1225 Engineering Bldg.

Required Text:

Fundamentals of Software Engineering by Ghezzi, Jazayeri, and Mandrioli, Prentice Hall, (Second Edition) 2003.

Tentative Course Evaluation

Homework, in-class participation	15
Exam (Wed. Oct. 17)	15
Project	70

Course objectives:

This course is designed to present students with an overview of *Software Engineering*. Students will be exposed to current technology used to develop software. Both the theoretical and practical aspects of software engineering will be presented in the course. Students will apply software engineering techniques to homework assignments and mini-projects throughout the course. The objective of the laboratory portion of the course is to expose students to commonly used tools for software engineering. Students will have opportunities to develop and/or improve their technical writing and software development skills during the course of the term, with particular emphasis placed on analysis and design.

Topics to be covered include:

- Software Process and project planning
- Requirements analysis
- Informal and formal specification and analysis techniques
- Testing techniques
- Software maintenance and configuration management
- Prototyping and presentation

Requirements: CSE335 or its equivalent is a pre-requisite. Any exceptions must be discussed with the instructor. Students should be familiar with at least two higher level languages, the basic concepts of computer organization and operating systems, and basic formal concepts of machines and languages, algorithms and data structures, discrete structures, design patterns, and object-oriented design.

Integrity and Ethics: * Article 2.3.3 of the Academic Freedom Report states that “The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards.” * In addition, the CSE435 adheres to the policies on academic honesty as specified in General Student Regulations 1.0, Protection of Scholarship and Grades; the all-University Policy on Integrity of Scholarship and Grades; and Ordinance 17.00, Examinations. (See Spartan Life: Student Handbook and Resource Guide and/or the MSU Web site: www.msu.edu.) * Therefore, unless authorized by your instructor, you are expected to complete all course assignments, including homework, lab work, quizzes, tests and exams, without assistance from any source. You are expected to develop original work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course. Also, you are not authorized to use the <http://www.allmsu.com> web site to complete any course work in CSE435. Students who violate MSU rules may receive a penalty grade, including—but not limited to—a failing grade on the assignment or in the course. Contact your instructor if you are unsure about the appropriateness of your course work. (See also <http://www.msu.edu/unit/ombud/honestylinks.html>)

Academic Integrity Links: <http://www.msu.edu/unit/ombud/dishonestylinks.html>

Academic Honesty and Integrity: <http://www.msu.edu/unit/ombud/RegsOrdsPolicies.html>

Examinations: One hour-long exam will be given towards the end of the term. The exam will contain questions covering material in the text, required reading, homework (including laboratory exercises), and the lectures.

Make-up Exams: No make-up exams will be given except for documented illness or personal emergency. To be eligible for a make-up, you must notify the instructor or the department office prior to the time of the exam and provide documentation for the situation when arranging the make-up. A student not taking an exam will receive a grade of 0.

Project: Not turning in one of the project deliverables on the due date may result in the student receiving a 0 for the project component of their respective grades.

Homework/Labs: All assignments (homework and project related assignments) are due at the beginning of class unless otherwise noted by the instructor. Late work is not accepted without prior approval.