UtahState University

SYLLABUS

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Overview

CS 3450 provides an introduction to Software Engineering. Students will learn about and perform a wide range software of development activities, including requirements capture and analysis, architectural design, detailed design, implementation, testing, and deployment. They will also cover key project management concepts; including planning, estimating, scheduling, and progress tracking. In CS 3450, students participate in a substantial hands-on experience by working in groups to develop a non-trivial software system.

Curriculum

Topics Include:

- Software Engineering Basics: the need for Software Engineering, advantages/disadvantages of common process models, IEEE/ACM Software Engineering Code of Ethics
- Project Management: team structures, team building, project planning, process improvement, and an emphasis on practicing project management on a team project
- Software development & management processes: describe 3 to 5 process models, the activities associated with them, and the trade-offs of example scenarios in which one process model is more appropriate than another
- Quality Management: software testing basics, including validation, verification, unit testing, integration (sandwich, top down, bottom up, big bang), system testing, combinatorial testing, and issues in testing (given enough time, code coverage, branch coverage, defuse coverage)
- Conceptual modeling: Requirements capture and analysis, modeling, including UML use cases, class diagrams, interaction diagrams, and state charts

Course Grading

NO late assignments will be accepted without a university approved excuse. NO make-up exams will be given if you are 10 min late or miss class.

The breakdown for the final course grade is as follows:

Incremental Assignments:	25%
Final Group Project:	45%
Midterm:	10%
Final:	20%
Total:	**100%**

Grades will be given by the following scale:

A >= 94% A- >= 90%

B+ >= 87% B >= 84% B- >= 80%

C+ >= 77% C >= 74% C- >= 70%

D+ >= 67% D >= 64% D- >= 60%

F < 60%

The instructor reserves the right to adjust this scale based upon individual performance in the class. Please be aware that this class is ALL based on a group project, and therefore you are responsible for your team's grade. I will not hesitate to lower your grade if you are not pulling your weight.

Tests

Tests will be on the following days. Please be present, as no make-up tests will be given without either a university approved medical condition, or talking to the instructor beforehand with a legitimate excuse.

- Midterm: October 18, 2013 at 3:00 PM
- Final: Wednesday December 11, 2013 at 1:30 PM

Be aware that NO extra time will be given to take tests. You should be able to finish tests in approximately 20 – 30 minutes but will be given the full time. Extra time will not give you answers that you do not already know.

A picture ID is required for all tests. I will not hesitate to ask for an ID if I have a reason to suspect that a friend is taking a test for you. Please see the cheating policy below.

Attendance

Attendance in this class is mandatory. Material covered in class will be on the test, and groups will conduct a vast amount of business and work in class. If I determine that people are missing class often, and without excuse, I will reflect your commitment in your grade.

Cheating

Absolutely no cheating will be tolerated and will result in an automatic failure of the course – NO EXCEPTIONS! I will also refer you, and all involved, to the department head and possibly the college dean. Please refer to USU's Academic Integrity Policy as well as the Department's Cheating Policy for more information on cheating.

You are allowed to use public domain, API's, or other freely available software. However, if you are found to do so, and do not give credit to the author, then an immediate 10% will be removed from your assignment score.

Electronics

Please be courteous of those in class. I will not hesitate to ban electronic devices if they become a distraction in class, however, I believe that they can be very helpful to your learning and would prefer not to do so. If you have an emergency, please step out into the hallway to take care of your business.

Disabilities

Students with physical, sensory, emotional or medical impairments may be eligible for reasonable accommodations in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. All accommodations are coordinated through the Disability Resource Center (DRC) in Room 101 of the University Inn, 435-797-2444 voice, 435-797-0740 TTY, or toll free at 1-800-259-2966. Please contact the DRC as early in the semester as possible. Alternate format materials (Braille, large print or digital) are available with advance notice.

Remember!

Nobody should fail this course. As long as you try your hardest, I will be reasonable when working with you. However, if you fail to come to class, refuse to help your team, or are unreasonable to work with, I feel no need to be lenient.