Tennessee Technological University
Department of Computer Science
Fall 2015

CSC 4610: Software Engineering I

Course Syllabus

Instructor:

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Office Hours: Monday and Wednesday (10:00-11:30)

Class Location:

206 Bruner Hall
Monday and Wednesday, 3:35-5:25

Section Number(s): 001 and 101
Credit Hours: 3 hours
Teaching Methods: Lecture, discussion, and lab
Prerequisites: C or better in CSC 2120, CSC 2400, CSC 3030 or 3040, CSC 3300, and senior standing.

Course Description

The goal of this course is to provide an introduction to software engineering and an understanding of various aspects to software analysis and design. Exams will be focused on general knowledge and understanding, and a team project will involve using what is learned in the class towards the requirements analysis and design of a software product for an actual customer. This course is the first in the Software Engineering sequence, and will be followed by second course that includes the development, testing, and deployment of the product to the customer.

Textbooks

Material will be provided during the semester at no extra cost.

Schedule

See the class schedule for the list of class topics, the semester schedule, due dates for assignments and the exam dates for the class.

Topics

The following topics will be covered in this course:

- ✓ Software Processes/Models
- ✓ Agile Methods
- ✓ Software Requirements
- ✓ Requirements Engineering
- ✓ System Modeling
- ✓ Architectural Design
- ✓ Test-Driven Design
- ✓ User Interface Design
- ✓ Project Management
- ✓ Security

Course Objectives

By the end of this course, student should be able to demonstrate the following:

- ✓ An ability to analyze a problem, and identify and define computing requirements appropriate to its solution.
- ✓ An ability to design a computer-based system, process, component, or program to meet desired needs.
- ✓ An understanding of professional, ethical, legal, security, and social issues and responsibilities.
- ✓ An ability to use current techniques, skills, and tools necessary for computing practice.

Grading

The grade distribution for this class is shown below.

Assignments	4%
Exam 1	9%
Exam 2	9%
Exam 3	9%
Exam 4	9%
Group Project	60%

Group Project

The Group Project will involve the following:

- ✓ Customer/User Interaction
- ✓ Formalizing Requirements
- ✓ Schedule Building
- ✓ High-Level Design (Software Architecture)
- ✓ Unit Test Cases/Plan
- ✓ Demo/Storyboard to Customer
- ✓ Peer Reviews

Students will be graded on the following (for Group Project total of 60%):

- ➢ Meeting Minutes (5%)
- ➢ High Level Design (10%)
- ➢ Requirements Analysis and User Stories (15%)
- ➢ Unit Test Plan (10%)
- ➢ Peer Reviews (10%)
- ➢ Customer Feedback (10%)

Exams

Material covered on the exams will be based on assignments and class lectures/discussions. All exams are mandatory. There are **NO** make-up exams after the scheduled times. If a student notifies the instructor IN ADVANCE, then an early make-up exam *MAY* be arranged at the discretion of the instructor. The instructor's decision is final.

Miscellaneous

The class syllabus, schedule, and other information will be available on the iLearn website as it is developed. You are responsible for checking the iLearn website regularly for information and due date changes.

NOTE: Do NOT use the class iLearn web-site e-mail server for corresponding directly with the instructors. You MUST use the instructors' e-mail address listed at the top of this syllabus.

Ethics and Academic Integrity

If you use material found on the web, reference any and all material you use. Anyone cheating on work in this class will receive a failing grade for the work and will be subject to the university's academic dishonesty policy. Cheating involves giving assistance or receiving assistance on an exam, or the unlawful use of material for your project.

Disability Accommodation

Students with a disability requiring accommodations should contact the Office of Disability Services (ODS). An Accommodation Request (AR) should be completed as soon as possible, preferably by the end of the first week of the course. The ODS is located in Roaden University Center, Room 112; phone 372-6119.

Attendance Policy

Attendance is not required except for exams and team activities. Student will receive a zero for the corresponding assignment for which they do not attend.