CSCE 4410 Software Development I

Course Syllabus

Instructor: Ryan Garlick
Office: Research Park F201B (inside CSE dept. office)
Email: garlick@unt.edu

Office Hours: Wednesdays 1:00 – 3:00 or by appointment
Web: http://www.cs.unt.edu/~garlick
http://moodle.cse.unt.edu The class materials are available on Moodle
Textbook: None

Topics

This course covers the software development process, requirements analysis, software design concepts and methodologies, structured programming, and debugging and testing.

Prerequisites: CSCE 3110 Data Structures and Algorithms. This pre-requisite is enforced.

Course Outcomes:

- Understand the purpose of the five phases of Software Engineering: Requirements Definition, Software Design, Software Implementation, Software Testing, and Maintenance.
- Develop a Software Requirements Document based on the specifications provided by a sample user for a programming project.
- Discuss Design and Implementation criteria for a programming project, understanding the various data structures required and their alternatives, and the relationship of these data structures to the programming code and the user interface.
- Develop a Design Document based on the specifications provided by a sample user for a programming project.
- Perform the Implementation Phase of a software project, paying attention to Top-Down development style and testing of the various application components.
- Perform Beta-Testing of application by performing student peer reviews, analyzing any problems each student application may have and ways of improving their work.

Evaluation

Project: You will form a group and create a software project of your choice. You must use course tools including Pivotal Tracker for project management, and Google Code for source control.

No late assignments of any kind are accepted unless there is a verifiable emergency situation. No exceptions.

Approximate Course Grading (subject to change)

SRD	10%
Milestone	10%
Final Project	80%

The final course grade will be based on the following scale:

90 – 100 **A** 80 – 89 **B** 70 – 79 **C** 60 – 69 **D** Below 60 **F**

Tentative Lecture Schedule

Week	Topics
1	**Introduction and Tools**
2	**Software Requirements**
3	**Tools and Google Code**
4	**Agile Development**
5	**Pivotal Tracker**
6	**Debugging Forum**
7	**Debugging Forum**
8	**Milestone Presentations**
9	**Team Management**
10	**Project Management**
11	**Budgeting**
12	**Software Testing**
13	**Debugging Forum**
14	**Debugging Forum**
15	**Final Presentations**

Course Policies

- The Department of Computer Science cheating policy will be followed. Any student caught cheating will receive an automatic F for the course and further disciplinary action may be taken. This will include those who violate the rules, as well as those who permit such actions.
- Students are expected to do their own work on homework/programming assignments. I encourage everyone in the class to discuss the assignments. However, any work/code turned in must be your own.
- All exams including the final will be given only once. If one regular exam is missed WITH AN EXCUSED ABSENCE, the comprehensive final will replace this grade. Only one regular exam grade can be replaced in this way. If more than one regular exam is missed, the second

missed exam will be given a grade of 0. The final exam must be taken or a 0 will be given for the final exam.

- Homework assignments must be turned in on time for full credit (on the due date). No assignments may be turned in late.

Americans with Disabilities Act

The Computer Science Department cooperates with the Office of Disability Accommodation to make reasonable accommodations for qualified students (cf. Americans with Disabilities Act and Section 504, Rehabilitation Act) with disabilities. If you have not registered with ODA, we encourage you to do so. If you have a disability for which you require accommodation please discuss your needs with the instructor or submit a written Accommodation Request on or before the fourth class day.