2014

CSCI 260-01 Software Engineering

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Instructor: Mr. Bill Watts
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Class Schedule: Lectures will be Mon/Wed from 4:30-5:45, Smith 346.
Office hours: Mon/Wed from 3:00-4:30, Hinkle 131.

Course homepage: Canvas.

Other Required Materials: Online resources will be utilized for documentation and code examples.
Required Hardware: School-provided computer. Prerequisites: Basic Software Programming

Course Description
To build software, these are the principles you need to know, the steps you need to follow, and the things you need to do.
The goal of this course is to design and build an actual software program, for use in the real world, and to understand the concepts required in performing this task. This course will prepare students for a career in software development, or instruct students on the proper process of software development. Students will study the entire software development lifecycle, including requirements gathering, design, preparation, implementation, and testing. Key themes of study include analysis, documentation, architecture, and object-oriented programming. The course will focus more on methodology than theory.
A major part of Computer Science and Software Development is 'problem solving' or 'puzzle solving', similar to brain teasers. Students will be presented with many tough problems/puzzles in class, and will have to find solutions.

Course Methodology
The course will be taught using Object Oriented Programming with N-Tier Architecture and a Builder design pattern with Model/View/Controller in a web-based application. Software will be Microsoft C#.Net and Microsoft SQL Server.

Course Objectives
Following this course, students will be able to:

- Successfully design and build a software program, applicable in future employment opportunities
- Identify a project, plan a solution for the project, and implement that solution in code
- Conduct independent explorations into the course material

Along with software development, this course will assist students with:

- Presentation and interview skills, valuable for scholarship, internship, and job applications
- Confidence in business situations
- Problem-solving abilities

Learning Process
In-class: Lectures, Class Participation, Material Review, and Tests. It is not necessary to bring your laptop to class. We will mainly be taking notes and discussing topics in class, not doing actual coding.
Outside of class: Homework, Project.

Grading and Assessment
Grading for this class will be cumulative, meaning that your final grade will be based on the sum of all grades during the course of the semester. Grades will be assigned for Class Participation; Tests; Homework; and Projects.

Course Pillars
1. COMMENT YOUR CODE! Code Readability. Write code so that somebody else can understand it.
2. Speak intelligently about our topics. Prove that you are learning and understanding.
3. If you do not understand something, ask! Understanding comes from thinking, analyzing, questioning, and reasoning.
4. The instructor cannot 'help' you. The instructor will work with you to understand or identify a solution.
5. Test your code.

Minimum Expectations
This is a list of expected behavior from students. Making class valuable for students is a shared responsibility between students and the instructor. You will get out of this course what you put into this course.
1. Communicate! Talk to the instructor and fellow students, send emails. Utilize message boards.
2. Attend class, and be on time. Attendance will be taken every day.
3. Raise your hand to ask a question or make a comment. Participate!
4. Pay attention! Don't surf the web during lectures.
5. Cheating will not be tolerated. Be honest.
6. Alert the instructor via email ahead of time if you will miss class or not meet a due date.

* All policies of this school and institution are also applicable in this class. These rules and guidelines in this document are in addition to the policies of the school. In scenarios where classroom policies are conflicting with school policies, school policies will be followed.