CMPT 276 - D100 Intro Software Engineering

Instructor(s): Saba Alimadadi  
SFU Burnaby

Calendar Objective/Description:
Intro Software Engineering

Instructor's Objectives:
The theory and practice of software development are introduced. Students will learn the standard methodologies underlying software development, including requirements, analysis, documentation, design, implementation, testing, maintenance, debugging, refactoring, and version control.
The term-long group project will have deliverables throughout the term, focusing on inception/elaboration, implementation, testing, refactoring, and presentation of the project.
The focus of the course is on preparing students to be effective members of a software development team.
The programming language for the lectures, assignments, and the project will be Java.

Requirements for completing the online course:
1) access to a computer capable of running Java, or with sufficient bandwidth to connect to SFU's CSIL computers.
2) internet access for participating in lectures (live streamed or pre-recorded), office hours, and quizzes and/or exams.
3) microphone access for presentations and participant.
4) camera access for exams, if applicable.

Prerequisites:
see go.sfu.ca

Topics:
- Version control
- Software development life cycle
- Requirements: system analysis and modelling, requirements engineering
- High-level Design: UML, architectural, etc
- Design principles and design patterns
- UI design
- Concurrency & Multithreading
- Build Automation + Documentation
- Unit & integration testing
- Debugging
- Refactoring

Grading:
Combination of online quizzes (during lecture), assignments, group project (different phases), exams (midterm and/or final), version-control activities, and participation in class activities. Details to be announced first week of class.
Students must attain an overall passing grade on the weighted average of exams in the course in order to obtain a clear pass (C- or better).

**Required Books:**
Software Engineering: A Practitioner's Approach, Roger Pressman and Bruce Maxim, McGraw-Hill Education, 9780078022128

**Academic Honesty Statement:**
Academic honesty plays a key role in our efforts to maintain a high standard of academic excellence and integrity. Students are advised that ALL acts of intellectual dishonesty will be handled in accordance with the SFU Academic Honesty and Student Conduct Policies (http://www.sfu.ca/policies/gazette/student.html).