Computing Science Course Outlines 2022 Fall

CMPT 473 - E100 Software Testing, Reliab & Sec

Instructor(s): Nick Sumner
SFU Surrey

Calendar Objective/Description:
Software Testing, Reliability & Security

Instructor's Objectives:
The goal of this course is to provide students a comprehensive understanding of the quality factors in software as well as the tools, technologies, and techniques that may be used to assess and improve software quality, reliability, and security. Students will apply these concepts to real-world software projects and gain an understanding of the challenges that arise in practice.

Success in the course depends on in-person participation for quizzes, exams, and in-class exercises. Some projects will require group communication and collaboration.

Prerequisites:
see go.sfu.ca

Topics:
- Testing techniques
- Measuring how well software is tested
- Automated test generation
- Program analysis technologies and techniques
- Assessing program performance
- Understanding security concerns
- Empirical methods for reliability

Grading:
Course work will consist of applied assignments, written homework, exams, and quizzes. The marking scheme will be given in the first week of the course.

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).

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).