Computing Science Course Outlines  2019 Fall

CMPT 489 - D100 Spec.Top. Programming Languages: Security Testing/Assesment

Instructor(s): Mohammad Tayebi

SFU Burnaby

Calendar Objective/Description:
Current topics in programming languages depending on faculty and student interest.

Instructor's Objectives:
Simulating real attacks on software systems to assess the risk associated with potential security breaches to provide students with hands-on experience necessary for a successful career path in the cybersecurity field. Students are trained as penetration testers to learn how to discover vulnerabilities that could be used by attackers to gain access to a system, exploit vulnerabilities, and to determine what attackers might gain after a successful vulnerability exploitation. The course teaches students how to assess web application security focusing on browser attacks, web attacks targeting users, web attacks using user or website data. Students will learn about and develop an understanding of cloud security architecture and security design principles of cloud computing.

Prerequisites:
CMPT 383.

Topics:
- Cyber threat intelligence
- Security assessment via penetration testing
- Web applications security
- Cloud computing security

Grading:
Grading will be discussed in the first week of class.

Recommended Books:

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).