CMPT 318 - D200 Special Topics in Computing Science

Instructor(s): Uwe Glaesser

Calendar Objective/Description:
Special topics in computing science at the 300 level. Topics that are of current interest or are not covered in regular curriculum will be offered from time to time depending on availability of faculty and student interest.

Instructor's Objectives:
This course introduces cybersecurity concepts and discusses cyber intelligence and threat analysis methods in the context of Big Data analytics. Cyber situational analysis based on probabilistic models will play an central role.

Prerequisites:
CMPT 225, MACM 201.

Topics:
- Probability theory
- Time series analysis and anomaly detection
- Hidden Markov models
- Cyber situational awareness
- Internet routing security
- Cyber critical infrastructure
- Cybercrime in financial sectors
- Criminal network analysis

Grading:
The course has a midterm examination (worth 30% of the total grade) and a course project with presentation (worth 40%). There will be four homework assignments which won't be collected and graded. Instead, there will be two quizzes in class (worth 15% each).

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).