CMPT 471 - D100 Networking II

Instructor(s): Janice Regan

SFU Burnaby

Calendar Objective/Description:
Networking II

Instructor's Objectives:
Covers the operating protocols which surround TCP/IP in the Internet protocol suite, in a Linux operating system environment. Assignments and lab work will be related to the operation and administration of a network using Internet protocols.

Special Note: Assignments will be in an online format. Lectures will all be available online after the lecture has occurred. Many lectures will also be available live/interactive at the scheduled lecture time. Students must have access to a computer with internet access, and the ability to remotely access the CSIL labs (instructions on how to do so will be provided). Some components of the course will require real-time participation during the scheduled lecture and/or exam times. Attempts will be made to schedule one or two sessions of each of these components available at times more appropriate for students in Europe and Asia (between 8AM to 8PM local time).

Prerequisites:
see go.sfu.ca

Topics:
- Overview of Linux O/S, socket programming
- Internet basics. (Underlying Network Technologies, IPv4, IPv6, ICMP, UDP, TCP)
- Finding address. (ARP, DHCP, NDP)
- Domain Name Service (DNS).
- Creating route for packet delivery. (RIP, OSPF, BGP)
- Multicasting including IGMP
- network security, secret-key/public-key encryption, digital signature, IPSec, SSL, firewall

Grading:
Assignments and Projects 30%; Quizzes/Midterms 40%; Final Exam 30%

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).

Recommended Books:

Reference 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).