Computing Science Course Outlines 2018 Summer

CMPT 471 - D100 Networking II

Instructor(s): Janice Regan

SFU Burnaby

Calendar Objective/Description:
This course covers the fundamentals of higher level network functionality such as remote procedure/object calls, name/address resolution, network file systems, network security and high speed connectivity/bridging/switching.

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.

Prerequisites:
CMPT 300 and 371.

Topics:
- Overview of Linux O/S
- Internet basics. (Underlying Network Technologies, IP, ICMP, UDP, TCP)
- Finding address. (ARP, DHCP, NDP)
- Domain Name Service (DNS).
- Creating route for packet delivery. (RIP, OSPF, BGP)
- Multicasting. (IGMP, PIM)
- Selected topics from socket programming, network security, multimedia networking, network management, and wireless/mobile networks

Grading:
Assignments 30%, quizzes 30%, final 40%.
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:
Documents for Linux O/S, http://tldp.org,

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 ).