CMPT 371 - D200 Data Communications and Networking

Instructor(s): Ouldooz Baghban Karimi

SFU Surrey

Calendar Objective/Description:
Data communication fundamentals (data types, rates, and transmission media). Network architectures for local and wide areas. Communications protocols suitable for various architectures. ISO protocols and internetworking. Performance analysis under various loadings and channel error rates.

Instructor’s Objectives:
Communication networks play a central role in our everyday connected life. This course is an introduction to the basic concepts, principles, and technologies for understanding communication networks. The course will cover the preliminaries of the Internet and wireless networks, and give students the foundation to further study networks.

Prerequisites:
CMPT 225, (CMPT 150, ENSC 150 or CMPT 295) and MATH 151 (MATH 150). MATH 154 or 157 with a grade of at least B+ may be substituted for MATH 151 (MATH 150).

Topics:
- Introduction to Networks: Basic Principles, Architecture, and Reference Models
- Network Applications: Principles and Applications
- Network Layer: Data Plane and Control Plane, Forwarding, Routing, SDN
- Data Link Layer and LANs
- Advanced Topics

Grading:
Assignments (20%) Quizzes (10%) Midterm (20%) Final (50%)

Required 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).