

Course Description

Overview of computer networks: network architecture and switching techniques. Introduction to the Internet, network programming, and layer architecture. Application layer: HTTP, FTP, SMTP, and CDN. Transport layer: TCP and UDP. Network layer: IP routing, NAT, and DHCP. Data link layer and local area networks: MAC protocols, Ethernet, and hubs/bridges/switches. *Exclusion(s):* COMP 4621 *Prerequisite(s):* COMP 1021 OR COMP 1022P

List of Topics

Course Outline

1. Introduction
2. Semantics of Address
3. Transport Layer
4. Application-Chapter 2
5. Network Routing
6. Link, LAN, and Wireless LAN
7. Network Security

Statement of Objectives/Outcomes:

On successful completion of this course, students will be able to:

CO1 - recognize the key technological developments in networking technology

CO2 - understand the fundamental principles for constructing a computer network

CO3 - understand and develop network programming skills for various applications

Textbook:

James F. Kurose and Keith W. Ross, *Computer Networking: A Top-Down Approach Featuring the Internet*, Addison Wesley

Relationship of Course to Program Outcomes:

Please refer to the Report Section 4.3.2 (iii).

Grading Scheme:

Assignment	16%
Project	8%
Midterm	32%
Final Exam	44%
Class Behavior	5% (lose it after two offenses)