CT-406	**:**	**Data and Computer Communications II**	**First Semester**
Text Book	**:**	Data & Computer Communications (9^{th}Edition) by William Stallings	
Period	:	45 periodsfor 15 weeks (3 periods/week) (Lecture + Lab)	

Course Description

This course is to provide students with an overview of the concepts and fundamentals of data communication and computer networks. Topics to be covered include: data communication concepts and techniques in a layered network architecture, communications switching and routing, types of communication, network congestion, network topologies, network configuration and management, network model components, layered network models (OSI reference model, TCP/IP networking architecture) and their protocols, various types of networks (LAN, MAN, WAN and Wireless networks) and their protocols.

Course Objectives

At the end of the course, the students will be able to:

- Build an understanding of the fundamental concepts of computer networking.
- Familiarize the student with the basic taxonomy and terminology of the computer networking area.
- Introduce the student to advanced networking concepts, preparing the student for entry Advanced courses in computer networking.
- Allow the student to gain expertise in some specific areas of networking such as the design and maintenance of individual networks.

References

1. Data and Computer Communications (9^{th} Edition) by William Stallings
2. Data Communication Networking by Behroug. A. Forouzan

Assessment Plan for the Course

Paper Exam:	60%
Attendance:	10%
Test/ Quiz:	10%
Lab:	10%

Lab Assessment: 10%

Tentative Lecture Plan

No.	Chapter	Page	Period	Detail Lecture Plan
	Chapter 16 Ethernet	505-525	**10**	
1.	16.1 Traditional Ethernet	507-515	4	
2.	16.2 High Speed Ethernet	515-525	4	
3.	16.3 IEEE 802.1 Q VLAN Standard	526-528	2	
	Chapter 18 Internet Protocols	573-605	**12**	
4.	18.1 Principles of Internetworking	574-578	3	
5.	18.2 Internet Protocol Operation	579-586	3	
6.	18.3 Internet Protocol	586-596	4	Detail Explain - IP Address & Subnets
7.	18.4 Ipv6	596-605	2	
	Chapter 19 Internetwork Operation	613-647	**10**	
8.	19.1 Multicasting	614-624	3	
9.	19.2 Routing Protocols	624-635	4	
10.	19.3 Mobile IP	635-647	3	
	Chapter 20 Internetwork Quality of Service	651-680	**11**	
11.	20.1 Integrated Services Architecture	653-661	3	
12.	20.2 Resource Reservation Protocol	662-672	4	
13.	20.3 Differentiated Services	672-680	3	
14.	20.4 Service Level Agreements	680-682	1	Overview
15.	Revision for all chapters		**2**	