

Faculty of Engineering & Technology

Computer Communication Networks

Information:

Course Code: COM 525 Level: Undergraduate Course Hours: 3.00- Hours

Department: Specialization of Electronics & Communication

Instructor Information:

Title	Name	Office hours
Associate Professor	Ahmed Mahmoud Mohamed Mohamed ElShafee	2
Teaching Assistant	Samar Abdelmohaimen Mohamed Soliman	

Area Of Study:

ÁUnderstand the wired and wireless transmission media used in computer networks

ÁUnderstand access control and routing techniques used in computer networks.

ÁUnderstand TCP and UDP transport layer

Æe familiar with basics of queuing theorems applied to computer network

ABe familiar with main application layer protocols

ABe familiar with computer security basics

Description:

Classification of computer communication networks, Transmission media, Access control, Fundamentals of queuing theory, Unicast routing protocols. Transport layer protocols. Multimedia. Application layer protocols. Security in computer networks

Course outcomes:

a.Knowledge and Understanding: :

- 1 Recognize the characteristics of transmission media used in computer network
- 2 Demonstrate the knowledge of routing, access techniques

b.Intellectual Skills::

- 1 Apply appropriate mathematical knowledge to understand queuing theorem and network security.
- 2 Analyze simple network protocols

c.Professional and Practical Skills: :

- 1 Merge the knowledge of communication to the analysis and design of computer networks
- 2 Apply theories of mathematics to analyze computer networks.

d.General and Transferable Skills::

- 1 Collaborate effectively within multidisciplinary team.
- 2 Communicate effectively.
- Demonstrate efficient IT capabilities.
- 4 Effectively manage tasks, time, and resources.



Course Topic And Contents :				
Topic	No. of hours	Lecture	Tutorial / Practical	
Overview on computer networks	5	3	2	
Transmission media in computer networks	5	3	2	
Access control in computer networks	10	6	4	
Unicast routing protocols.	10	6	4	
TCP , UDP Transport protocols.	10	6	4	
Multimedia	10	6	4	
Application layer protocols.	10	6	4	
Security in computer networks	10	6	4	
Elements of Queuing theorem.	5	3	2	

Teaching And Learning Methodologies:

Lecture

Tutorial

Laboratory/ Assignments

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Course	ASSESSITETIC	

Methods of assessment	Relative weight %	Week No	Assess What
″Æinal exam	40.00		
o Assignment	10.00		
o In Class Quizzes and Participation	20.00		
o Mid-Term Exams	30.00		

Recommended books:

[1]William Stallings Pata and Computer Communications 40th Edition [2]BA.Forouzan Data Communications and Networking 6th Edition