Course Description Form

1. Course Name:
Multimedia Networks
2. Course Code:
CSCS3107
3. Semester / Year:
2025-2024
4. Description Preparation Date:
2025-2024
5. Available Attendance Forms:
attending the theoretical
6. Number of Credit Hours (Total) / Number of Units (Total)
60H
7. Course administrator's name (mention all, if more than one name)
Name: WISAM MAHMOOD LAFTA Email: wisam.m.lafta@uotechnology.edu.iq

8. Course Objectives

Course Objectives	**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, VLN Client/server tech. ,and Wireless networks) and their protocols.**

9. Teaching and Learning Strategies

Strategy	1. Introduction to data communications (components, data representation, data flow) 2. Networks (distributed processing, Network criteria, physical structure, Network models, Network categories) 3. layered tasks (sender, receiver, carrier, hierarchy, OSI MODEL, TCP Model) Data link 4. Network Topology 5. Network devices 6. protocols(ARP,FTP,TELNET,DNS,UDP,NFS,RPC,SMTP,TFTP,HTTP,WAIS,) 7. Transmission Media (guided media (twisted pair, coaxial cable, fiber optical cable) (Unguided Media (Radio Waves, Microwaves, Infrared) 8. Error detection and correction 9. Multiplexing ,(FDM,TMD,WMD) 10. Network Layer/logical addressing (Address space, IPV4 Addressing, IPV6

	Addressing) 11. Dynamic Addressing, routable and non-routable protocols Sub netting , VLSM ,CIDR , Super sub netting)

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 theoretical 2work	Introduction to data communications components, data representation, data flow	1,2,3,4,5,6,	lectures + laboratory application	questions oral and asked for a solution Examples
2	2theoretical 2work	distributed processing, Network criteria	1,2,3,4,5,6,7	lectures + laboratory application	questions oral and asked for a solution Examples
3	2theoretical 2work	Physical structure, Network models, Network categories	1,2,3,4,5,6,7	lectures + laboratory application	questions oral and asked for a solution Examples
4	2theoretical 2work	sender,receiver, carrier, hierarchy	1,2,3,4,5,6,7	lectures + laboratory application	questions oral and asked for a solution Examples
5	2theoretical 2work	OSI Model,	1,2,3,4,5,6,7	lectures + laboratory application	questions oral and asked for a solution Examples
6	2theoretical 2work	TCP Model	1,2,3,4,5,6,7	lectures + laboratory application	questions oral and asked for a solution Examples
7	2theoretical 2work	Protocols: ARP,FTP,TELNET,DNS,	1,2,3,4,5,6,7	lectures + laboratory application	questions oral and asked for a solution Examples
8	2theoretical 2work	Protocols :UDP,NFS,RPC, Network devices	1,2,3,4,5,6,7	lectures + laboratory application	questions oral and asked for a solution Examples
9	2theoretical 2work	Protocols: SMTP,TFTP,HTTP,WAIS	1,2,3,4,5,6,7	lectures + laboratory application	questions oral and asked for a solution Examples
10	2theoretical 2work	Network Topologies **(all types)**	1,2,3,4,5,6,7	lectures + laboratory application	questions oral and asked for a solution Examples
11	2theoretical 2work	Types of addresses in IP4 Network	1,2,3,4,5,6,7	lectures + laboratory application	questions oral and asked for a solution Examples
12	2theoretical 2work	**Mid -Examination**	1,2,3,4,5,6,7	lectures + laboratory application	questions oral and asked for a solution Examples
13	2theoretical 2work	Static protocols	1,2,3,4,5,6,7	lectures + laboratory application	questions oral and asked for a solution Examples
14	2theoretical 2work	Dynamic protocols	1,2,3,4,5,6,7	lectures + laboratory application	questions oral and asked for a solution Examples
15	2theoretical 2work	Wireless connections	1,2,3,4,5,6,7	lectures + laboratory application	questions oral and asked for a solution Examples

11. Course Evaluation

The final exam	evaluation	laboratory grade	second midterm exam
60	10	15	15

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1-Computer Networking, seventh edition, Behrouz A. Forouzan,

	2-Fourth Edition ,Computer Networks ,ANDREW S. TANENBAUM.
Main references (sources)	
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	