Section 1: Course Information

Course Name	COMPUTER NETWORK AND COMMUNICATION		
Course Code	CND3200		
Course Classification	Compulsory		
Synopsis	This course covers the basic concepts of computer communications and the standard networking model. The characteristics of physical transmission, network architecture, types of network, the latest technologies on computer networks, the major components of		
Course Learning Outcomes	1. elaborate the basic architecture model for		
	2. develop a basic computer network architecture		
	3. analyzing data acceptance proof in network		
	4. discuss various issues in computer		
Semester & Year Offered	**Semester**	II	2024/2025

Credit Value	3	**Total of SLT**	**SLT for PTG** (note:

Distribution of SLT for PTG	**T&L Material (40%)**	24	**Assessment**

Section 2: Distribution of Student Learning Time (SLT)

Syllabus			**SLT**	**SLT (Online T&L Activities**
Week	**Topic**	**Type of Assessment**	**Lecture**	
1	Chapter 1:Data Communication and Networks - Data Communication Components - Transmission Mode - Network Topology and Architecture - Protocols and Standards			3
2	Chapter 2:OSI Model and Cloud Services - OSI Model - Cloud Services - OSI and Cloud Layers	Project Discusison 1		3
3	Chapter 3:Physical Layer and Media - Signals and Transmission - Signal Distortion - Multiplexing Methods - Transmission Media - Packet Switching and Circuit	Assignment		3
4	Chapter 3:Physical Layer and Media (CONT.) - Signals and Transmission - Signal Distortion - Multiplexing Methods - Transmission Media - Packet Switching and Circuit	Project Discusison 2	3	
5	Chapter 4:Mobile Networks - Data communications generations (4G,5G,6G) - Cellular - Ad hoc networks and sensors	Assignment	3	3
6	**Chapter 5: Data Link Layer** **- Node-to-node transmission** **- Error control** **- Access control** **- Flow control**	**Midterm**	3	
7	Chapter 6: Local and Wide Area Networks - Multiple Access Control (MAC) - LAN Technology - Virtual LAN (VLAN) - Wireless Networks - WAN Technology	Project Discusison 3		4
8	Chapter 6: Local and Wide Area Networks (CONT.) - Multiple Access Control (MAC) - LAN Technology - Virtual LAN (VLAN) - Wireless Networks - WAN Technology	Assignment (Lab)		3
9	Chapter 7: Network Layer - Routing algorithms - End-to-end transmission - Addressing and classes - IP protocol - Unicast dan multicast routing	Assignment (Lab)	3	
10	Chapter 7: Network Layer (CONT.) - Routing algorithms - End-to-end transmission - Addressing and classes - IP protocol	Assignment		4
11	Chapter 8: Transport Layer - Process-to-process transmission - User Datagram Protocol (UDP) - Transmission Control Protocol (TCP) - Congestion control - Quality of Service	Assignment	3	
12	Chapter 8: Transport Layer (CONT.) - Process-to-process transmission - User Datagram Protocol (UDP) - Transmission Control Protocol (TCP) - Congestion control - Quality of Service	Project Discusison 4		4
13	**Chapter 9:Session, Presentation and Application Layers** **- Security applications** **- Data compression** **- Application Protocols**	**Test Lab**	3	
14	**Chapter 10 : Issues and Management / Project Presentation** **- Network management** **- Network security** **- Inter-network design**	**Project Presentation**	3	
Exam Week		Final Examination		
			21	27
Total			**SLT for**	**SLT for**
Overall SLT			129	