

**Department of Computer Engg.  
Govt. Polytechnic for Women, Rehan  
District. – Kangra (H.P.) - 176022**



**LESSON PLAN**

Program Name	Computer Engineering
Subject Name	Advanced Computer Networks
Subject Code	COPE-202-II:
Semester	4 <sup>th</sup>
Subject Teacher Name	Er. Rinkesh Chauhan

**Evaluation Scheme**

Sr. No.	Subject Name	Study scheme (Hrs/Week)		Marks in Evaluation Scheme					
				Internal Assessment			External Assessment		
		Th	Pr	Th	Pr	Total	Th	Pr	Total
1.	Operating System	4	--	40	--	40	60	--	100
Reference Books		(i) An Engineering Approach to Computer Networking, S. Keshav							
		(ii) Data Networks, Bertsekas-Gallager							
		(iii) Computer Networks, Andrew S. Tanenbaum							

**Course Outcomes (COs)**

CO – 1	To understand subnetting and routing protocols.
CO – 2	Explain various switching techniques and understand wireless networks.
CO – 3	Understand network redundancy and various network security issues
CO – 4	To understand various network security issues
CO – 5	To simulate and study a network.

**Teaching Plan**

Unit No.	Name of Topic	Proposed Date	Actual Date	Remarks
1	<b>UNIT -1 Review of Networking Basics</b>	09-02-2024		
	Advance Topics in IPv4	13-02-2024		
	Subnetting, Multicasting	14-02-2024		
	Multicast Routing Protocols	16-02-2024		
	(IGMP, PIM, DVMRP)	20-02-2024		
	Advance Topics in TCP	21-02-2024		
	flow management,	23-02-2024		
	protocol spoofing	27-02-2024		
	congestion avoidance	28-02-2024		
	protocol spoofing	01-03-2024		
	Introduction of Ipv6	02-03-2024		
	<b>Revision of important topics</b>	05-03-2024		
2	<b>UNIT -2 Telecom Networks</b>	06-03-2024		
	Switching Techniques;	12-03-2024		
	Introduction to Frame Relay	13-03-2024		
	Introduction to, ATM	15-03-2024		

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	Introduction to MPLS	16-03-2024		
	VSAT Communication	19-03-2024		
	Star and Mesh architectures,	20-03-2024		
	bandwidth reservation	22-03-2024		
	Wireless Networks	23-03-2024		
	WiFi,	26-03-2024		
	WiMax	27-03-2024		
	Cellular Phone Technologies	30-03-2024		
	GSM,	02-04-2024		
	CDMA	03-04-2024		
	3G, 4G	05-04-2024		
	<b>Revision of important topics</b>	06-04-2024		
3	<b>UNIT -3 Network Redundancy</b>	08-04-2024		
	Load Balancers, Caching	09-04-2024		
	Storage Networks;	12-04-2024		
	QoS	13-04-2024		
	Network Monitoring	16-04-2024		
	SNMP	19-04-2024		
	RMON;	20-04-2024		
	<b>Revision of important topics</b>	24-04-2024		
4	<b>UNIT -4 Introduction to Network Security</b>	26-04-2024		
	VLAN,	27-04-2024		
	VPN,	30-04-2024		
	IPS	01-05-2024		
	Proxy Servers	03-05-2024		
	Firewall,	04-05-2024		
	<b>Revision of important topics</b>	07-05-2024		
5	<b>UNIT -5 Network Simulation</b>	08-05-2024		
	Network design case studies	14-05-2024		
	Network design exercises	15-05-2024		
	IP Addressing schema	18-05-2024		
	Protocol Analysers (Wireshark, etc)	21-05-2024		
	<b>Revision of important topics</b>	22-05-2024		
	<b>Revision of important topics</b>	25-05-2024- 01-06-2024		

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### Assignments

Assignment No	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit-1 and Unit-2	06-04-2024		
A-2	Unit-3 and Unit-4	07-05-2024		
A-3	Unit-5,	25-05-2024-		

### House Test/Class Test

Name of test	Syllabus for Tests	Proposed Date	Actual Date	Remarks
Class Test -1	Unit-1 and Unit-2	As per HPTSB Academic Schedule		
Class Test -2	Unit-3 and Unit-4			
House Test - 1	Unit-1- Unit-5 and unit -6 basics overview			

  
05/02/24

(Signature of Teacher)  
Er. Rinkesh Chauhan

  
5/2/24

(Signature of HOD)

Approved

  
5/2/24

Principal

Govt. Polytechnic for Women Rehan