

LESSON PLAN

(Academic Session: Jan.-June, 2026)

Program Name	Computer Engineering
Course Title	Programme Elective-II (Wireless Communication)
Course Code	COPE204 -II
Semester	4 th
Course Teacher Name	Sunaina Stan

Evaluation Scheme

Sr. No.	Subject Code	Subject	Study Scheme				Total Study Hours	Credits	Evaluation Scheme							Total Marks
			Th	Pr	DCS	Internal Assessment			External Assessment							
						Th			Pr	Total	Th	Hrs	Pr	Hrs	Total	
1	COPE204 -II	PE-II(WC)	3	-	1	4	2	40	-	40	60	3	-	-	60	100

References Books/ Study Material

- Wireless Communication: Principles and Practice by Theodor S. Rappaport, Pearson Education.
- Wireless Communication and Networking- William Stallings, PHI.
- Mobile Computing: Technology, Applications and Service Creation by Asokek Talukdar and Roop R. Yavagal, TMA.
- Wireless Communication -Akhil Pundir
- Wireless and Mobile Communication- Deepak Arora

Course Outcomes (Cos)

CO-1	Explain various wireless communication technologies.
CO-2	Understand electromagnetic spectrum and transmission impairments.
CO-3	Explain various propagation modes for wireless communication.
CO-4	Understand the architecture of cellular communication.
CO-5	Understand Bluetooth standard for wireless communication.

Teaching Plan

Period	Unit No.	Topic(s)	Planned Dates	Actual Date	Remarks
1.	1	introduction to Wireless communication	27-01-2026		

Period	Unit No.	Topic (s)	Proposed Date	Actual Date	Remarks
2.		Wireless communication and its applications,	28-01-2026		
3.		Wireless communication and its applications(contd.)	30-01-2026		
4.		Advantages of wireless communication,	03-02-2026		
5.		Disadvantages of wireless communication,	04-02-2026		
6.		Types of Services : broadcast,	06-02-2026		
7.		paging, cellular telephony,	10-02-2026		
8.		trunking radio, cordless telephony	11-02-2026		
9.		WLAN, PAN	13-02-2026		
10.		ad hoc & sensor networks	17-02-2026		
11.		fixed wireless access	18-02-2026		
12.		challenges in wireless communication,	20-02-2026		
13.		2	wireless transmission impairments	24-02-2026	
14.	wireless transmission impairments – attenuation,		25-02-2026		
15.	distortion, noise,		27-02-2026		
16.	interference, pathloss,		03-03-2026		
17.	interference, pathloss, shadowing and fading.		06-03-2026		
18.	fading		10-03-2026		
19.	2	Revision & Class Test 1	11-03-2026		
20.		Revision & Class Test 1	13-03-2026		
21.		Concept of bandwidth, a	17-03-2026		
22.		analog and digital signals,	18-03-2026		
23.		data rate, signal strength, SNR, RSSI, electromagnetic	20-03-2026		
24.		SNR, RSSI, electromagnetic	24-03-2026		
25.		wave propagation: ground waves	25-03-2026		
26.		sky waves and line-of-sight propagation;	27-03-2026		
27.	3	radio waves, microwaves, infrared;	31-03-2026		
28.		Overview of Propagation Mechanisms:	07-04-2026		
29.		reflection, diffraction and scattering;	08-04-2026		
30.			10-04-2026		
31.		outdoor and indoor propagation	17-04-2026		

Period	Unit No.	Topic(s)	Planned Dates	Actual Date	Remarks
32.	4	Cellular Communication: cellular concept,	21-04-2026		
33.		cellular system architecture, cells,	23-04-2026		
34.		cellular system architecture, cells,	24-04-2026		
35.		cell splitting, handoff,	28-04-2026		
36.		clusters, frequency reuse,	29-04-2026		
37.		TDMA, ETDM, PCS, CDMA,	05-05-2026,		
38.		Global System for Mobile Communication (GSM)	06-05-2026		
39.		GSM network : switching system, BSS, operation and support system,	08-05-2026		
40.		Generations of cellular networks and their features (1G – 5G).	12-05-2026		
41.		Revision & Class Test 2	13-05-2026		
42.	5	Wireless LAN (WLAN), IEEE-802.11, WLAN applications, WLAN types,	15-05-2026		
43.		WLAN problems – hidden station and exposed station problems :	19-05-2026		
44.		exposed station problems; Bluetooth technology,	20-05-2026		
45.		Direct Sequence Spectrum Scheme,	22-05-2026		
46.		Frequency Hopping Spread Spectrum, Personal Area Networks.	26-05-2026		

Home Assignments

Ass. No	Contents of Syllabus Covered	Proposed date	Actual Date	Remarks
1	Unit-1&2	24.02.2025		
2	Unit-3&4	30.03.2025		

3	Unit-5	04.05.2025		
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Class /House Test

Name of Test	Syllabus Covered in Tests (Unit/Chapter Wise)	Proposed date	Actual Date	Remarks
Class Test-I	Unit-1&2	As per HPTSB		
Class Test-II	Unit-3& 4	Academic		
House Test	80% of whole syllabus	Calendar Schedule		

Sunaina

Signature of Course Teacher with Name

(Sunaina Stan)

Approved by

Sandhya
HoD,
Computer Department