

GOVERNMENT GIRLS POLYTECHNIC BILASPUR
DEPARTMENT OF ELECTRONICS

LESSON PLAN

Session : Jan-June 2026

Course Name : Communication System-I

Subject Code: 2028472 (028)

Name of Subject teacher : SUMEET KUMAR DEWANGAN

Lecture plus Tutorial/Week : 3

Total Period Planned : 38

Course Outcome	Topics Covered	No. of Periods
CO-1 Identify basic elements of communication system.	Basic communication system blocks	2
	Transmitter, receiver, channel, antenna	1
	Multiplexer, demultiplexer, encoder, decoder	1
	Analog vs digital communication	1
	Modes of communication	1
	Electromagnetic spectrum and bands	2
	Concept of bandwidth	1
	Wired and wireless channels	1
CO-2 Analyze different types of signal used in the communication systems.	Signal representation	2
	Operations on signals	2
	Continuous and discrete signals	1
	Deterministic and random signals	1
	Periodic and non periodic signals	1
	Energy and power signals	1
	Even and odd signals	1
	Fourier series and transform	2
CO-3 Analyze the affect of different types of noise produced by the various sources, on the communication system.	Sources of noise	1
	Types of noise	2
	Thermal noise and bandwidth relation	1
	White Gaussian noise	1
	Noise bandwidth and SNR	1



	Noise factor and figure	1
	Noise temperature and cascaded amplifiers	1
CO-4 Analyze Analog Modulated and Demodulated signal.	Concept of modulation	1
	Amplitude modulation	2
	DSB and SSB	1
	Efficiency and percentage modulation	1
	Bandwidth and power requirement	1
	Generation and detection of AM	1
	Introduction to VSB	1
	Low and high level modulation	1
	Angle modulation FM and PM	1
	FM generation using varactor diode and VCO	1
CO-5 Maintain simple communication transmitters and receivers.	AM/FM transmitter block diagram	2
	AM/FM receiver block diagram	2
	TRF receiver	1
	Super heterodyne receiver	1
	Receiver characteristics	1
	Pre emphasis and de emphasis circuits	1

