

GOVERNMENT GIRLS POLYTECHNIC BILASPUR
DEPARTMENT OF ELECTRONICS
LESSON PLAN
 Session : July-Dec 2025

Course Name : Basics of Electrical Engineering
 Subject Code : 2028375(024)
 Name of Subject teacher : PRAKASH SWARNAKAR
 Lecture plus Tutorial/Week : 3
 Total Period Planned : 39

Course Outcomes	Topics Covered (with subtopics)	No. of Periods
CO-1 Apply basic concepts of Electrical engineering to electric circuits.	Basic electrical concepts: Current (DC/AC), Voltage (DC/AC), EMF, Potential difference, Terminal voltage	2
	Electrical components: Resistor, Inductor, Capacitor – properties and behavior	2
	Voltage & Current sources: Ideal and Practical sources	1
	Ohm's Law, KCL, KVL with simple problems	2
	Series & Parallel circuits, Star-Delta and Delta-Star transformation	1
	Nodal and Loop analysis methods	1
	Network Theorems: Superposition and Maximum Power Transfer	1
CO-2 Apply concepts of Magnetism and Electromagnetism.	Magnetic circuits: Flux, MMF, Reluctance, basic laws	2
	Electromagnetic Induction: Self & mutual induction, statically & dynamically induced EMF	2
	Faraday's Laws, Lenz's Law and applications	2
CO-3 Measure various parameters of AC circuits.	AC fundamentals: Phase difference, Power factor (unity, lag, lead)	2
	RMS, Average value, Form factor	1

P.S.
13/5

(P. SWARNAKAR)

