

GOVERNMENT GIRLS POLYTECHNIC BILASPUR

DEPARTMENT OF COMPUTER SCIENCE

LESSON PLAN

Session	Jan-June 2025	Course Name	Environmental Engineering and Sustainable Development
Subject Code	2000273(020)	Name of Subject Teacher	ANIL KUMAR CHHATRE
Lecture plus Tutorial/Week	3		

S. No.	Course Outcomes	Topics / Subtopics to be Covered	No. of Periods Planned
		UNIT-1 Water Pollution and Air Pollution	
1	CO1: Understand the concept of environment and causes, effects and control of water and air pollution.	Introduction to Environment and Environmental Pollution	1
2		Water Pollution: Introduction and Sources	2
3		Classification of Water Pollutants and Adverse Effects	2
4		Control of Water Pollution and Water Quality Standards (Indian Standards)	2
5		Air Pollution: Introduction and Sources	2
6		Classification and Effects of Air Pollution	2

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S. No.	Course Outcomes	Topics / Subtopics to be Covered	No. of Periods Planned	
7		Air Monitoring System and Control Methods	1	
		UNIT-2 Soil, Noise, Thermal and Radioactive Pollution		
8		Soil Pollution: Introduction, Sources and Effects	2	
9		Control Measures of Soil Pollution	1	
10		Noise Pollution: Introduction and Measurement of Noise	1	
11	CO2: Explain different types of environmental pollution and their control methods.	Sources and Effects of Noise Pollution	1	
12		Control of Noise Pollution	1	
13		Thermal Pollution: Introduction, Causes and Effects	1	
14		Control of Thermal Pollution	1	
15		Radioactive Pollution: Introduction and Sources	1	
16		Effects and Control of Radioactive Pollution	1	
			UNIT-3 Sustainable Development and Clean Technologies	
17		CO3: Understand sustainable development and clean technologies.	Concept of Sustainable Development and Natural Resources	2

Perkins

S. No.	Course Outcomes	Topics / Subtopics to be Covered	No. of Periods Planned	
18		Energy Conservation and Renewable Energy Need	1	
19		Growth of Renewable Energy in India and World	1	
20		Waste Management and Recycling	1	
21		Clean Technology and Types of Energy	1	
22		Conventional and Non-Conventional Energy Sources	1	
23		Solar Power and Solar Devices	1	
24		Hydel Energy and Wind Energy	1	
25		Biomass Energy and Biogas Production	1	
		CO4: Understand Environmental Impact Assessment (EIA) and its implementation.	UNIT-4 Environmental Impact Assessment (EIA)	
26			Introduction to EIA and Public Participation	1
27	EIA Documentation and Case Studies		1	
28	Scope and Steps of EIA		1	
29	EIA Process and Report		1	
30	Gazette Notification and Action Plan		1	

Actual

S. No.	Course Outcomes	Topics / Subtopics to be Covered	No. of Periods Planned
31		EIA Implementation, Directives and Follow-ups	1
	CO5: Explain environmental issues and environmental protection measures.	UNIT-5 Social Issues and Environment	
32		Water Conservation, Rainwater Harvesting and Watershed Management	2
33		Acid Rain and Climate Change	1
34		Greenhouse Effect and Ozone Layer Depletion	1
35		Global Warming and Control Measures	1
36		Solid Waste Management and Importance of 3R's	2
37		Environment Protection Act 1986	1
Total Lectures			48

Teacher Name: ANIL KUMAR CHHATRE

Signature: 