

**DEPT. OF CIVIL ENGG.
GOVT. POLYTECHNIC, SAMBALPUR, RENGALI**

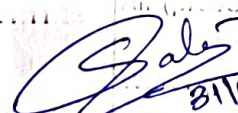
**LESSON PLAN OF TH-5 ENVIRONMENTAL SCIENCE
FOR 3RD SEM, CIVIL ENGG, WINTER 2023 W.E.F. 01.08.2023**

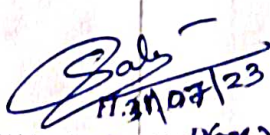
PREPARED BY-SMT. S.S. PATEL, LECT IN CIVIL ENGG

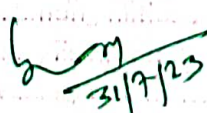
WEEK NO.	DATE	Topic to be covered	PERIODS ASSIGNED PER TOPIC	PERIODS AVAILABLE PER WEEK
W-1	01.08.23 TO 05.08.23	1. The Multidisciplinary nature of environmental studies	4	3+1 EC
		Definition Of Environmental Studies; introduction to environmental studies		
		Scope Of Environmental Studies		
		Importance Of Environmental Studies		
		Need for public awareness-		
		2. Natural Resources :Renewable and non renewable resources:		
W-2	07.08.23 TO 12.08.23	Forest resources: Use and over-exploitation, deforestation, case studies	10	4
		Timber extraction mining, dams and their effects on forests and tribal people		
		Water resources: Use and over-utilization of surface and ground water, floods , Drought, conflicts over water, dam's		
		Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources		
		Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture		
W-3	14.08.23 TO 19.08.23	Fertilizers- pesticides problems, water logging, salinity	10	4
		Energy Resources: Growing energy need, renewable and non-renewable energy sources		
		use of alternate energy sources, case studies.		
		Land Resources: Land as-a resource, land degradation		
		Man induces land slides, soil erosion, and desertification ,Role of individual in conservation of natural resources, Equitable		
W-4	21.08.23 TO 26.08.23	3: Eco-Systems:	2	2
		Concept of an eco system, Structure and function of an eco system		
		Producers, consumers, decomposers : definitions and their role in an ecosystem		
W-5	19.08.23	Energy flow in the eco systems, Ecological succession, Food chains, food webs		

W-5	28.08.23 TO 02.09.23	Ecological pyramids, Introduction, types, characteristic features Of Forest Ecosystem	8	3
		Structure and Function Forest ecosystem: Introduction and types of Aquatic eco systems		
W-6	04.09.23 TO 09.09.23	Characteristics of Aquatic eco systems Structure and Function of Aquatic eco systems		3
		4. Biodiversity and its conservation		
W-7	11.09.23 TO 16.09.23	Introduction-Definition Genetics, Species and Ecosystem diversity Bio-geographical classification of India	8	4
W-5	02.09.23	Value of biodiversity: consumptive use, productive use		
W-8	18.09.23 TO 23.09.23	Social ethical, aesthetic values Biodiversity at global, national and local level. Threats to biodiversity: Habitats loss Poaching of wild life man wildlife conflicts		2
		DISCUSSIONS ON CHAPTERS COVERED		2
W-7 W-9	25.09.23 TO 30.09.23	5. Environmental Pollution. Definition, Causes & effects of Air Pollution Control measures of Air Pollution		1+1 EC
W-8 W-10	03.10.23 TO 07.10.23	Definition, Causes & effects of Water Pollution, Control measures of Water Pollution Definition, Causes & effects of Soil Pollution, Control measures of Soil Pollution CLASS TEST Definition, Causes & effects of Marine Pollution, Control measures of Marine Pollution	12	3+1 EC
W-9 W-11	09.10.23 TO 14.10.23	Definition, Causes & effects of Noise Pollution, Control measures of Noise Pollution Definition, Causes & effects of Thermal Pollution, Control measures of Thermal Pollution Definition, Causes, & effects of Nuclear Hazard, Control measures of Nuclear Hazard Solid waste Management: Causes, effects and control measures of urban and industrial wastes, Role of an		
W-10		Disaster management: Floods, earth quake : precautionary measures to be taken during natural calamities CLASS TEST		2

W-12	16.10.23 TO 20.10.23	Cyclone and Land slides : precautionary measures to be taken during natural calamities		4
		6. Social issues and the Environment		
		DISCUSSIONS ON INTERNAL QUESTIONS AND DISTRIBUTION OF EVALUATED ANSWER SHEETS		2
W-14	30.10.23 TO 04.11.23	Form unsustainable to sustainable development , Urban problems related to energy, Importance of Water conservation ,rain water harvesting, water shed management		
		Resettlement and rehabilitation of people; Its problems and concern		4
		Environmental ethics: issue and possible solutions. Climate change, global warming	10	
		Acid rain		
W-15	06.11.23 TO 11.11.23	Ozone layer depletion		
		nuclear accidents and holocaust, case studies.		
		Air (prevention and control of pollution) Act		4
		Water (prevention and control of pollution) Act		
W-16	13.11.23 TO 18.11.23	Public awareness		
		7. Human population and the environment		
W-16	13.11.23 TO 18.11.23	Population growth and variation among nations, Population explosion- family welfare program , Environment and human	8	4
W-17	20.11.23 TO 25.11.23	Value education ,Environmental Values, Valuing Nature, Valuing cultures ; Social justice , Human heritage, Equitable use of Resources,		4
W-18	28.11.23 TO 30.11.23	REVISION		-


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