

**LESSON PLAN**

<b>Department: Civil Engineering</b>	<b>Semester : 3rd SEC- A</b>	<b>Name of the Teaching faculty: ARPITA SHOO</b>	
<b>Subject :- Th5. ENVIRONMENTAL STUDIES</b>	<b>No.of Days/ week class allotted : 03(4 periods)</b>	<b>Semester from date: 01/08/2023 to 30/11/2023</b> <b>No. of Weeks :18</b> <b>Topics to be covered:-</b>	
<b>Week</b>	<b>Class Day</b>	<b>Topics</b>	<b>Remarks</b>
1 st Week		<b>Unit 1: The Multidisciplinary nature of environmental studies (4P)</b>	
	DAY 1	Definition, scope and importance, Need for public awareness.	
	DAY 2	Definition, scope and importance, Need for public awareness.	
2ND WEEK		<b>Unit 2: Natural Resources Renewable and non renewable resources:(10P)</b>	
		<b>a) Natural resources and associated problems.</b>	
	DAY 1	Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people.	
	DAY 2	Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems	
3 rd Week	DAY 2	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, fertilizers- pesticides problems, water logging, salinity	
	4th Week	DAY 1	Energy Resources: Growing energy need, renewable and nonrenewable energy sources, use of alternate energy sources, case studies. Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification.
DAY 2		b) Role of individual in conservation of natural resources, c) Equitable use of resources for sustainable life styles.	
		<b>Unit 3: Systems(8P)</b>	
5th Week	DAY 1	Concept of an eco system. Structure and function of an eco system. Producers, consumers, decomposers.	
	DAY 2	Energy flow in the eco systems, Ecological succession. Food chains, food webs and ecological pyramids.	

6th Week	DAY 1	Introduction, types, characteristic features, structure and function of the following eco system:	
	DAY 2	Forest ecosystem: Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).	
<b>Unit 4: Biodiversity and it's Conservation (8P)</b>			
7th Week	DAY 1	Introduction-Definition: genetics, species and ecosystem diversity	
	DAY 2	Biogeographically classification of India.	
8th Week	DAY 2	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optinvalues	
9th Week	DAY 1	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.	
<b>Unit 5: Environmental Pollution.(12P)</b>			
10th Week	DAY 1	Definition Causes, effects and control measures of: a) Air pollution. b) Water pollution. c) Soil pollution d) Marine pollution e) Noise pollution. f) Thermal pollution g) Nuclear hazards.	
	DAY 2	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.	
11TH WEEK	DAY 1	Role of an individual in prevention of pollution, Disaster management: Floods, earth quake, cyclone and landslides	
	DAY 2	Role of an individual in prevention of pollution, Disaster management: Floods, earth quake, cyclone and landslides	
12TH WEEK	DAY 1	Role of an individual in prevention of pollution, Disaster management: Floods, earth quake, cyclone and landslides	
	DAY 2	<b>Unit 6: Social issues and the Environment(10P)</b> Form unsustainable to sustainable development. Urban problems related to energy, Water conservation, rain water harvesting, water shed management	
13TH WEEK	PUJA VACATION		
14TH WEEK	DAY 1	Resettlement and rehabilitation of people; its problems and concern. Environmental ethics: issue and possible solutions.	
	DAY 2	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust , case studies.	
15TH WEEK	DAY 1	Air (prevention and control of pollution) Act. Water (prevention and control of pollution) Act.	
	DAY 2	Public awareness	
<b>Unit 7: Human population and the environment.(08P)</b>			
16th Week	DAY 1	Population growth and variation among nations.	
	DAY 2	Population explosion- family welfare program	

17th Week	DAY 1	Environment and humanhealth.Human rights, Value education	
	DAY 2	Role of information technology in environment and human health.	
18th Week	DAY 1	REVISION	
	DAY 2	REVISION	

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 Arpita Sahoo 1/08/2023  
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