LESSON PLAN

Deparment: Civil Engineering	Semester : 3rd SEC- B	Name of the Teaching faculty: Sailaja Bhuyan	
Subject :- Th5. ENVIRONMENTAL STUDIES	No.of Days/ week class allotted : 04/week	Semester from date: 15/09/2022 to 22/12/2022 No. of Weeks :15 Topics to be covered:-	
Week	**Class Day**	**Topics**	**Remarks**
		Unit 1: The Multidisciplinary nature ofenvironmental studies (4p)	
1 st Week: (15 th Sept- 17th Sept)	1ˢᵗ	Definition, scope and importance, Need for public awareness.	
	2ⁿᵈ	Definition, scope and importance, Need for public awareness.	
2 nd Week: (19 th Sept - 24 th Sept)	1ˢᵗ	Definition, scope and importance, Need for public awareness.	
		Unit 2: Natural Resources **Renewable and non renewable resources:(10p)** a) Natural resources and associated problems.	
	2ⁿᵈ	Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people.	
	3ʳᵈ	Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems	
3 rd Week: (26 th Sept-1st Oct)	1ˢᵗ	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.	
	2ⁿᵈ	Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity	
	3ʳᵈ	Energy Resources: Growing energy need, renewable and nonrenewable energy sources, use of alternate energy sources, case studies.	
4th week	**vacation**		
5 th Week: (10 th Oct- 15 th Oct)	1ˢᵗ	Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, anddesertification.	
	2ⁿᵈ	b) Role of individual in conservation of natural resources. c) Equitable use of resources for sustainable life styles.	
		Unit 3: Systems (8P)	
	3ʳᵈ	Concept of an eco system.Structure and function of an eco system.	
6 th Week: (17 th Oct- 22 nd Oct)	1ˢᵗ	Producers, consumers,decomposers.	
	2ⁿᵈ	Energy flow in the eco systems. Ecological succession.	
	3ʳᵈ	Food chains, food webs and ecological pyramids.	

Week	Lecture	Topic	
7 th Week: (25 th Oct-29th Oct)	2nd	Introduction, types, characteristic features, structure and function of the following eco system. Forest ecosystem	
	3rd	Aquatic eco systems (ponds, streams, lakes,rivers, oceans, estuaries).	
8 th Week: (31st oct-5th Nov)		**Unit 4: Biodiversity and it's Conservation (8P)**	
	1st	Introduction-Definition: genetics, species and ecosystem diversity	
	2nd	Biogeographically classification of India.	
		Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optinvalues	
	3rd	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optinvalues	
9 th Week: (7 th Nov -12 th Nov)	1st	Biodiversity at global, national and local level.	
	2nd	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.	
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10 th Week: (14 th Nov -19 th Nov)		**Unit 5: Environmental Pollution (12P)**	
	1st	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.	
	2nd	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.	
	3rd	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.	
11 th Week: (21st Nov - 26 th Nov)	1st	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.	
	2nd	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.	

	3rd	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.	
12 th Week: (28 th Nov -3 rd) Dec	1st	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.	
	2nd	Role of an individual in prevention of pollution. Disaster management: Floods, earth quake, cyclone and landslides	
	3rd	Disaster management: Floods, earth quake, cyclone and landslides	
		Unit 6: Social issues and the Environment (10P)	
13 th Week: (5 th Dec -10 th Dec)	1st	Form unsustainable to sustainable development. Urban problems related to energy. .	
	2nd	Water conservation, rain water harvesting, water shed management	
	3rd	Resettlement and rehabilitation of people; its problems and concern.	
14 th Week: (12 th Dec- 17th Dec)	1st	Environmental ethics: issue and possible solutions.	
	2nd	Climate change, global warming, acid rain,ozone layer depletion,nuclear accidents and holocaust , case studies.	
	3rd	Climate change, global warming, acid rain,ozone layer depletion,nuclear accidents and holocaust , case studies.	
15 th Week: (19 th Dec- 22nd Dec)	1st	Air (prevention and control of pollution) Act.	
EXTRA CLASSES	1	Water (prevention and control of pollution) Act. Public awareness.	
	2	**Unit 7: Human population and the environment (8P)**	
	3	Population growth and variation among nations.	
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	5	Population explosion- family welfare program	
	6	Environment and human health.	
	7	Environment and human health.	
	8	Human rights.	
	9	Value education	
	10	Role of information technology in environment and human health.	

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