

LESSON PLAN FOR ENVIRONMENTAL STUDIES (Th5)

Discipline: ELECTRICAL ENGINEERING	Semester: 3rd	Name of the Teaching Faculty: SUBHRA PRATIK SAHOO(PTGF) S.P.S. 21/07/23
Subject: ENVIRONMENTAL STUDIES	No. of days per week class allotted: 4	Semester From Date : 01.08.2023 To Date : 30.11.2023 No. of Weeks : 15 Session: 2023-24
Week	Class Day	Theory
1st	1st	1. The Multidisciplinary nature of environmental studies: Definition, scope and importance.
	2nd	1.2 Need for public awareness.(cont.)
	3rd	1.2 Need for public awareness.
	4th	2. Natural Resources: Natural resources and associated problems.
2nd	1st	2.1.1. Forest resources: Use and over-exploitation, deforestation, case Studies, Timber extraction mining, dams and their effects on forests and tribal people.
	2nd	2.1.2. Water resources: Use and over-utilization of surface and groundwater, floods, drought, conflicts over water, dam's benefits and Problems.
	3rd	2.1.3. Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.
	4th	2.1.4. Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers-pesticides problems, water logging, salinity,
3rd	1st	2.1.5. Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies.
	2nd	2.1.6. Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification.
	3rd	2.2 Role of individual in conservation of natural resources.
	4th	2.3 Equitable use of resources for sustainable life styles.
4th	1st	3. System: Concept of an eco system.
	2nd	3.2. Structure and function of an eco system.
	3rd	3.3. Producers, consumers, decomposers.
	4th	Energy flow in the eco systems. Ecological succession.
5th	1st	3.6. Food chains, food webs and ecological pyramids.
	2nd	3.7. Introduction, types, characteristics
	3rd	features structure and function of the following eco system
	4th	3.8. Forest ecosystem

6th	1st	3.9. Aquatic eco systems (ponds, streams, lakes, rivers, oceans,
	2nd	4. Biodiversity and It's Conservation:
	3rd	4.2. Biogeographically classification of India.
	4th	4.3. Value of biodiversity: consumptive use, productive use, (cont.)
7th	1st	Social ethical, aesthetic and option values.
	2nd	4.4. Biodiversity at global, national and local level.
	3rd	4.5. Threats to biodiversity: Habitats loss, (cont.)
	4th	Poaching of wild life, man wildlife conflicts.
8th	1st	Poaching of wild life, man wildlife conflicts. (cont.)
	2nd	Question answer session.
	3rd	5. Environmental Pollution: Definition Causes, effects and control measures of:
	4th	5.1.1 Air pollution.
9th	1st	5.1.2 Water pollution.
	2nd	5.1.3 Soil pollution
	3rd	Marine pollution Noise pollution.
	4th	5.1.6 Thermal pollution
10th	1st	5.1.7 Nuclear hazards.
	2nd	5.2. Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
	3rd	5.2. Solid waste Management: Causes, effects and control measures of urban and industrial wastes. (Cont.)
	4th	5.3. Role of an individual in prevention of pollution.
11th	1st	5.4. Disaster management: Floods, earth quake, cyclone and landslides.
	2nd	Question answer session.
	3rd	6. Social issues and the Environment: Form unsustainable to sustainable development.
	4th	6.2. Urban problems related to energy.
12th	1st	6.3. Water conservation, rain water harvesting, water shed management.
	2nd	6.4. Resettlement and rehabilitation of people; its problems and concern.
	3rd	6.5. Environmental ethics: Issue and possible solutions.
	4th	6.6. Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.
13th	1st	6.6. Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies. (Cont.)
	2nd	6.7. Air (prevention and control of pollution) Act.
	3rd	6.8. Water (prevention and control of pollution) Act.
	4th	6.9. Public awareness.
14th	1st	7. Human population and the environment: Population growth and variation among nations.
	2nd	7.2. Population explosion- family welfare program.
	3rd	7.3. Environment and human health.
	4th	7.4. Human rights.

15th	1st	7.5. Value education
	2nd	7.6. Role of information technology in environment and human health.
	3rd	7.6. Role of information technology in environment and human health.(cont.)
	4th	7.6. Role of information technology in environment and human health.(cont.)

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31/09/2023
HOD Electrical Engg.

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Academic Co-coordinator

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Principal
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