

BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF MECHANICAL ENGINEERING



LESSON PLAN

SUBJECT: ENVIRONMENTAL STUDIES

FACULTY: MR. Chiranjeevi Pattnaik

ACADEMIC SESSION: 2023-24

SEMESTER: 3RD

SEC: A


Sd/- 31/07/23
H.O.D (Mech Engg.)

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Discipline: Mechanical Engineering	Semester: 3rd A		Name of the teaching faculty: Chiranjeevi Pattnaik
Subject: ENVIRONMENTAL STUDIES	No. of Days/ per week class allotted: 04 periods per week (WED-1 period, THU-1 period, FRI-1 period, SAT -1 period)		Semester From Date: 01-08-2023 To Date: 30-11-2023 No. of weeks: 17 weeks
Week	Class Day	No of period available	Theory Topics
1ST	02-Aug-2023	1	Unit 1: The Multidisciplinary nature of environmental studies Definition of Environmental Studies.
	03-Aug-2023	1	Scope of Environmental Studies.
	04-Aug-2023	1	Importance of Environmental Studies, Need for public awareness.
	05-Aug-2023	1	Unit 2: Natural Resources: Forest resources: Use and overexploitation, deforestation, case studies, Timber extraction mining.
2ND	09-Aug-2023	1	Dams and their effects on forests and tribal people.
	10-Aug-2023	1	Water resources: Use and over-utilization of surface and ground water, floods, drought.
	11-Aug-2023	1	Conflicts over water, dam's benefits and problems, Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.
	12-Aug-2023	1	Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture.

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3RD	16-Aug-2023	1	Fertilizers- pesticides problems, water logging, salinity
	17-Aug-2023	1	Energy Resources: Growing energy need, renewable and nonrenewable energy sources.
	18-Aug-2023	1	Use of alternate energy sources, case studies, Man induces landslides, soil erosion, and desertification.
	19-Aug-2023	1	Land Resources: Land as a resource, land degradation.
4TH	23-Aug-2023	1	Role of individual in conservation of natural resources. Equitable use of resources for sustainable life styles. Class Test-01
	24-Aug-2023	1	Unit 3: Systems Concept of an eco-system.
	25-Aug-2023	1	Structure and function of an eco-system.
	26-Aug-2023	1	Producers, consumers, decomposers, Energy flow in the eco systems.
5TH	31-Aug-2023	1	Ecological succession.
	01-Sep-2023	1	Food chains, food webs.
	02-Sep-2023	1	Ecological pyramids.
6TH	06-Sep-2023	1	Introduction, types, characteristic features eco system, structure and function of the Forest ecosystem
	07-Sep-2023	1	Aquatic eco systems (ponds, streams).

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	08-Sep-2023	1	Aquatic eco systems oceans, estuaries.
	09-Sep-2023	1	Unit 4: Biodiversity and its Conservation Introduction-Definition: genetics, species and ecosystem diversity, biogeographically classification of India.
7TH	13-Sep-2023	1	Value of biodiversity: consumptive use, productive use.
	14-Sep-2023	1	Social, ethical, aesthetic and option values.
	15-Sep-2023	1	Biodiversity at global level.
	16-Sep-2023	1	Biodiversity national and local level, Threats to biodiversity: Habitats loss
8TH	21-Sep-2023	1	Poaching of wild life, man wildlife conflicts. Class Test-02
	22-Sep-2023	1	Unit 5: Environmental Pollution. Definition, Causes, effects of: a) Air pollution
	23-Sep-2023	1	Control measures of: a) Air pollution
9TH	27-Sep-2023	1	Definition, Causes, effects and Control measures of Water pollution.
	29-Sep-2023	1	Definition, Causes, effects and control measures of b) Soil pollution
	30-Sep-2023	1	control measures of c) Soil
10TH	04-Oct-2023	1	Definition, Causes, effects and control measures of d) Marine pollution e) Soil pollution e Noise pollution.
	05-Oct-2023	1	Definition, Causes, effects and control measures of e) Noise pollution.

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LESSON PLAN

10TH	06-Oct-2023	1	Definition, Causes, effects of f) Thermal pollution
	07-Oct-2023	1	Control measures off) Thermal pollution
11TH	11-Oct-2023	1	Nuclear hazards.
	12-Oct-2023	1	Solid waste Management: Causes, effects
	13-Oct-2023	1	Control measures of urban and industrial wastes.
12TH	18-Oct-2023	1	Role of an individual in prevention of pollution.
	19-Oct-2023	1	Disaster management: Floods, earth quake, Cyclone and landslides
	20-Oct-2023	1	Unit 6: Social issues and the Environment Form unsustainable to sustainable development.
13TH	01-Nov-2023	1	Urban problems related to energy.
	02-Nov-2023	1	Water conservation, rain water harvesting
	03-Nov-2023	1	Water shed management.
	04-Nov-2023	1	Resettlement and rehabilitation of people; its problems and concern, Environmental ethics: issue and possible solutions.
14TH	08-Nov-2023	1	Climate change, global warming, acid rain.
	09-Nov-2023	1	Ozone layer depletion.
	10-Nov-2023	1	Nuclear accidents and holocaust, case studies.
	11-Nov-2023	1	Air (prevention and control of pollution) Act., Water (prevention and control of pollution) Act.

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15TH	15-Nov-2023	1	Public awareness.
	16-Nov-2023	1	Unit 7: Human population and the environment Population growth
	17-Nov-2023	1	Variation of population among nations.
	18-Nov-2023	1	Population explosion, Family welfare program.
16TH	22-Nov-2023	1	Environment and human health.
	23-Nov-2023	1	Human rights. Value education. Role of information technology in environment, Role of information technology in human health. Class Test-03
	24-Nov-2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
17TH	29-Nov-2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION
	30-Nov-2023	1	PREVIOUS YEAR QUESTIONS DISCUSSION

M. Ranjeevi Pattnaik