

BIHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF MECHANICAL ENGINEERING



LESSON PLAN

SUBJECT: ENVIRONMENTAL STUDIES

FACULTY: MR. S.P.B.B.BHATTA

ACADEMIC SESSION: 2023-24

SEMESTER: 3RD

SEC: B


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

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Discipline: Mechanical Engineering	Semester: 3rdB		Name of the teaching faculty: S.P.B.B.BHATTA
Subject: ENVIRONMENTAL STUDIES	No. of Days/ per week class allotted: 04 periods per week (WED-2 period, FRI-1 period, SAT -1 period)		Semester From Date: 01-08-2023 To Date: 30-11-2023 No. of weeks: 18 weeks
Week	Class Day	No of period available	Theory Topics
1ST	2-Aug-2023	2	Unit 1: The Multidisciplinary nature of environmental studies Definition, scope and importance,
	4-Aug-2023	1	Need for public awareness
	5-Aug-2023	1	Unit 2: Natural Resources Renewable and non renewable resources: a) Natural resources and associated problems. Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people.
2ND	9-Aug-2023	2	Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems.

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	11-Aug-2023	1	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 overgrazing, effects of modern agriculture, fertilizers Pesticides problems, water logging, salinity,.
3RD	16-Aug-2023	2	Energy Resources: Growing energy need, renewable and non renewable energy sources, use of alternate energy sources, case studies.
	18-Aug-2023	1	Land Resources: Land as a resource ,land degradation ,man induces landslides, soil erosion, and desertification. b) Role of individual in conservation of natural resources. c) Equitable use of resources for sustainable lifestyles.
	19-Aug-2023	1	Unit 3: Systems Concept of an ecosystem. Structure and function of an ecosystem.
4TH	23-Aug-2023	2	Producers, consumers, decomposers.
4TH	25-Aug-2023	1	Energy flow in the ecosystems.

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	26-Aug-2023	1	Ecological succession. Food chains, food web and ecological pyramids.
5TH	1-Sep-2023	1	Introduction, types, characteristic features, structure and function of the following ecosystem:
	2-Sep-2023	1	Forest ecosystem: Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)
6TH	8-Sep-2023	1	Unit 4: Biodiversity and it's Conservation Introduction-Definition: genetics
	9-Sep-2023	1	species and ecosystem diversity.
7TH	13-Sep-2023	2	Bio geographically classification of India
	15-Sep-2023	1	Value of biodiversity: consumptive use
8TH	22-Sep-2023	1	productive use, social ethical, aesthetic and opt in values.
9TH	27-Sep-2023	2	Biodiversity at global, national and local level.
	29-Sep-2023	1	Threats to biodiversity: Habitats loss
	30-Sep-2023	1	poaching of wild life, manwildlife conflict
	4-Oct-2023	2	CLASS TEST-01

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10TH			Unit 5: Environmental Pollution.
			Definition Causes, effects and control measures of: a) Air pollution
	6-Oct-2023	1	Definition Causes, effects and control measures of: b) Water pollution.
	7-Oct-2023	1	Definition Causes, effects and control measures of: c) Soil pollution
11TH	11-Oct-2023	2	Definition Causes, effects and control measures of: d) Marine pollution
	13-Oct-2023	1	Definition Causes, effects and control measures of: e) Noise pollution.
12TH	18-Oct-2023	2	Definition Causes, effects and control measures of: f) Thermal pollution
13TH	25-Oct-2023	2	Definition Causes, effects and control measures of: g) Nuclear hazards
	27-Oct-2023	1	Solid waste Management: Causes, effects
14TH	1-Nov-2023	2	control measures of urban and industrial wastes.
14TH	3-Nov-2023	1	Role of an individual in prevention of pollution.

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	4-Nov-2023	1	Disaster management: Floods
	8-Nov-2023	2	earth quake, cyclone and landslides.
15TH		1	Unit 6: Social issues and the Environment From unsustainable to sustainable development.
	10-Nov-2023		Urban problems related to energy. Water conservation, rain water harvesting, water shed management
	11-Nov-2023		Resettlement and rehabilitation of people; its problems and concern.
16TH	15-Nov-2023	2	Environmental ethics: issue and possible solutions.
	17-Nov-2023	1	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.
		1	Air (prevention and control of pollution) Act. Water (prevention and control of pollution) Act. Public awareness.
	18-Nov-2023		Class test-02
17TH		2	Unit 7: Human population and the environment Population growth and variation among nations. Population explosion-family welfare program. Human rights.
	22-Nov-2023		Value education ,Role of information technology in environment and

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17TH			human health
	24-Nov-2023	1	REVISION
18TH	29-Nov-2023	2	REVISION
19TH	01-Nov-2023	1	Revision 2
	02-Nov-2023	1	Revision
	06-Nov-2023	2	Revision
	08-Nov-2023	1	Revision
	09-Nov-2023	1	Revision

SPL