

**BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK**  
**DEPARTMENT OF MECHANICAL ENGINEERING**

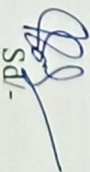


**LESSON PLAN**

**SUBJECT: ENVIRONMENTAL STUDIES**  
**FACULTY: MR. S.P.B.B.HAATTA**

**ACADEMIC SESSION: 2024-25(W)**  
**SEMESTER: 3<sup>RD</sup>**  
**SEC: B**

GF (Mechanical Engg.)

  
SD/-

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Discipline: Mechanical Engineering	Semester: 3 <sup>rd</sup> B		Name of the teaching faculty: S.P.B.B.BHATTA
Subject: <b>ENVIRONMENTAL STUDIES</b>	No. of Days/ per week class allotted: 04periods per week WED -1 period, THUR-1 period, FRI -2 period, SAT- 1 period)		Semester From Date: 01-07-2024 To Date: 08-11-2024 No. of weeks: 18 Weeks
	Week	Class Day	No of period available
IST			<b>Unit 1: The Multidisciplinary nature of environmental studies</b>  Theory Topics
		03/07/2024	1
		04/07/2024	1
		05/07/2024	1
	06/07/2024	1	Need for public awareness
			<b>Unit 2: Natural Resources</b>
			<b>Renewable and non renewable resources:</b>
	10/07/2024	1	Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people.
	11/07/2024	1	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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2ND	12/07/2024	1	Water resources; Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems.
	13/07/2024	1	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.
3RD	17/07/2024	1	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.
	18/07/2024	1	Food Resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizers Pesticides problems, water logging, salinity.
	19/07/2024	2	Energy Resources: Growing energy need, renewable and non renewable energy sources, use of alternate energy sources, case studies.
4TH	20/07/2024	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.
	24/07/2024	1	<b>Unit 3: Systems</b> Concept of an ecosystem. Structure and function of an ecosystem.

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	25/07/2024	1	Producers, consumers, decomposers.
	26/07/2024	1	Energy flow in the ecosystems.
	27/07/2024	1	Ecological succession.
		1	Food chains, food web sand ecological pyramids.
	31/07/2024	1	Ecological succession.
		1	Food chains, food web sand ecological pyramids.
	01/08/2024	1	Introduction, types, characteristic features, structure and function of the following ecosystem:
5TH	02/08/2024	1	Forest ecosystem:
		1	Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)
	03/08/2024	1	Class test-01
	07/08/2024	1	<b>Unit 4: Biodiversity and it's Conservation</b>
		1	Introduction-Definition: genetics,
6TH	08/08/2024	1	species and ecosystem diversity.
	09/08/2024	1	Bio geographically classification of India
	10/08/2024	1	Value of biodiversity: consumptive use
	14/08/2024	1	productive use, social
		1	ethical, aesthetic and opt in values.
7TH	16/08/2024	1	Biodiversity at global, national and local level.

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	17/08/2024	1	Threats to biodiversity; Habitats loss
	21/08/2024	1	poaching of wild life, man wildlife conflicts
	22/08/2024		
			<b>Unit 5: Environmental Pollution.</b>
		1	Definition Causes, effects and control measures of: a) Air pollution.
8TH	23/08/2024	1	Definition Causes, effects and control measures of: b) Water pollution.
	24/08/2024	1	Definition Causes, effects and control measures of: c) Soil pollution
			Definition Causes, effects and control measures of:
	28/08/2024	1	d) Marine pollution
			Definition Causes, effects and control measures of:
	29/08/2024	1	e) Noise pollution.
			Definition Causes, effects and control measures of:
9TH	30/08/2024	1	f) Thermal pollution

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	31/08/2024	1	Definition Causes, effects and control measures of: g) Nuclear hazards
	04/09/2024	1	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
10TH	05/09/2024	1	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
	06/09/2024	1	Role of an individual in prevention of pollution.
	11/09/2024	1	Disaster management: Floods, earth quake, cyclone and landslides.
	12/09/2024	1	<b>Unit 6: Social issues and the Environment</b> From unsustainable to sustainable development.
11TH		1	• Urban problems related to energy.
	13/09/2024	1	• Water conservation, rain water harvesting, water shed management
	14/09/2024	1	• Resettlement and rehabilitation of people; its problems and concern.
	18/09/2024	1	• Environmental ethics: issue and possible solutions.
12TH	19/09/2024	1	• Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.
	20/09/2024	2	• Air (prevention and control of pollution) Act.
	21/09/2024	1	• Water (prevention and control of pollution) Act.
	25/09/2024	1	• Public awareness

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		<b>Unit 7: Human population and the environment</b>	
13TH	26/09/2024	1	<ul style="list-style-type: none"> <li>• Population growth and variation among nations.</li> </ul>
	27/09/2024	1	<ul style="list-style-type: none"> <li>• Population explosion-family welfare program</li> </ul>
	28/09/2024	1	<ul style="list-style-type: none"> <li>• Environment and human health.</li> </ul>
	03/10/2024	1	<ul style="list-style-type: none"> <li>• Human rights.</li> </ul>
14TH	04/10/2024	1	<ul style="list-style-type: none"> <li>• Value education</li> </ul>
	05/10/2024	1	<ul style="list-style-type: none"> <li>• Role of information technology in environment and human health.</li> </ul>
	17/10/2024	1	Class test-02
15TH	18/10/2024	1	REVISION
	19/10/2024	1	REVISION
	23/10/2024	1	REVISION
16TH	24/10/2024	1	REVISION
	25/10/2024	1	REVISION
	26/10/2024	1	REVISION
	26/10/2024	1	REVISION

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				REVISION
	01/11/2024			REVISION
17TH		1		
	02/11/2024		1	Previous Year Question Discussion
	06/11/2024		1	Previous Year Question Discussion
	07/11/2024		1	Previous Year Question Discussion
18TH			1	Previous Year Question Discussion
	08/11/2024			