

UTKAL GOURAV MADHUSUDAN INSTITUTE OF TECHNOLOGY, RAYAGADA

Academic Lesson Plan for “Environmental Studies” – 2024 (Winter)

Name of the teaching faculty- **SUBHEN KUMAR BEHERA , Sr.Lecturer**

Dept.: **Department of ETC Engg**

Semester: **3rd ,**

Subject: **Theory 5 : Environmental Studies**

No of Periods per week: **4,**

Total Periods: 60,

End semester Exam: **80 Marks,**

Internal Assessment: 20 Marks,

Total Marks: 100 Marks

Week	Period	Unit/Chapter	Topic to be Covered
1st	1st	<u>Unit-1</u> Multidisciplinary nature of Environmental Studies	Definition, Scope and Importance
	2nd	-----Do-----	Need for Public Awareness
	3RD	<u>Unit-2</u> Natural resources: Renewal and Non Renewable resources	Forest Resources- Use and Over exploitation, Deforestation
	4TH		Timber Extraction, Mining, Dams and their effects on forests and tribal people.
2nd	1st		Water resources:- Use and over-Utilization of surface and ground .water,
	2nd		floods, drought, conflicts over water ,dams benefits and problems
	3RD		Mineral Resources
	4TH		Food Resources- World food problems ,effect of modern agriculture, over grazing
3rd	1st		Energy Resources- Renewable and non renewable energy resources
	2nd		. Use of alternate energy sources and case studies
	3RD		Land Resources:- Land as resource, land degradation, land slides
	4TH		Soil erosion and desertification

4th	1st		Role of Individual in Conservation of Natural resources. and Equitable use of resources for sustainable life styles
	2nd		Role of Individual in Conservation of Natural resources. and Equitable use of resources for sustainable life styles
	3RD	<u>Unit-3</u> Concept of Ecosystem	Concept, Structure and Function of an Ecosystem
	4TH		Producers ,Consumers ,Decomposers
5th	1st		Energy flow in an Ecosystem
	2nd		Ecological succession
	3RD		Food chains, Food webs and Ecological pyramids
	4TH		Forest ecosystem-Features, Structure and function
6th	1st		Aquatic Eco system
	2nd	<u>Unit-4</u> Biodiversity and its Conservation	Genetics , Species and ecosystem diversity
	3RD		Biogeographical classification of India
	4TH		Value of Biodiversity
7th	1st		Biodiversity at global,national and local level
	2nd		Threats to biodiversity
	3RD	<u>Unit-5</u> Environmental Pollution	Air Pollution(Causes,effects and control)
	4TH		Water Pollution(Causes,effects and control)
8th	1st		Soil Pollution(Causes,effects and control)
	2nd		Noise Pollution(Causes,effects and control)
	3RD		Nuclear Hazards(Causes,effects and control)

	4TH		Solid Waste Management
9th	1st		
	2nd		Role of Individual in Prevention of Pollution
	3RD		Disaster management: Floods and Earth Quake
	4TH		Disaster management: Cyclone and Landslides
10th	1st	<u>Unit- 6</u> Social issues and the Environment	Form unsustainable to sustainable development
	2nd		Urban problems related to energy
	3RD		Water conservation
	4TH		Rain water harvesting
11th	1st		Water shed Management
	2nd		Resettlement and rehabilitation of people
	3RD		Environmental Ethics (issue and solutions)
	4TH		Environmental Ethics (issue and solutions)
12th	1st		Climate Change ,Global warming. acid rain
	2nd		Climate Change ,Global warming. acid rain
	3RD		Ozone layer depletion, nuclear accidents and holocaust, case studies
	4TH		Ozone layer depletion, nuclear accidents and holocaust, case studies
13th	1st		Air (Prevention and control of pollution)Act
	2nd		Water(Prevention and control of pollution)Act
	3RD		Public Awareness.
	4TH	<u>Unit-7</u> Human population and the Environment	Population growth and variation among nations
14th	1st		Population explosion - family welfare program
	2nd		Environment and human health
	3RD		Human Rights

	4TH		Value education
15th	1st		Role of Information Technology in environment and human health
	2nd		Revision of Previous Classes
	3RD		Previous year semester question papers solved
	4TH		Important questions discussion on Previous year.

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