



NILASAIL INSTITUTE OF SCIENCE & TECHNOLOGY  
SERGARH-756060, BALASORE (ODISHA)  
(Approved by AICTE & affiliated to SCTE & VT, Odisha)



## LESSON PLAN

**SUBJECT: Th-5 (ENVIRONMENTAL STUDIES)**

### CHAPTER WISE DISTRIBUTION OF PERIODS

Sl. No.	Name of the chapter as per the Syllabus	No. of Periods As per the Syllabus	No. of periods actually needed
1	The Multidisciplinary nature of environmental studies	4	2
2	Natural Resources	11	14
3	Systems	8	9
4	Biodiversity and its Conservation	8	10
5	Environmental Pollution	11	11
6	Social issues and the Environment	11	12
7	Human population and the environment	7	7
	Total Period:	60	65

Discipline: CIVIL ENGINEERING	Semester: 3rd	Name of the Teaching Faculty: Er. ABHILIPSA DAS	
		SESSION:2023-24	EXAMINATION: 2023(W)
Week	Class Day	Topics to be covered	
1 <sup>st</sup>	1 <sup>st</sup>	Introduction to The Multidisciplinary nature of environmental studies	
	2 <sup>nd</sup>	<b>unit-1: The Multidisciplinary nature of environmental studies</b> The Multidisciplinary nature of environmental studies: Definition, scope and importance.	
	3 <sup>rd</sup>	Need for public awareness.	
	4 <sup>th</sup>	<b>unit-2 : Natural Resources</b> Renewable and non renewable resources	
2 <sup>nd</sup>	1 <sup>st</sup>	Natural resources and associated problems.	
	2 <sup>nd</sup>	Forest resources: Use and over-exploitation, deforestation, case studies, Use and over-exploitation.	
	3 <sup>rd</sup>	Deforestation, case studies.	
	4 <sup>th</sup>	Timber extraction mining, dams and their effects on forests and tribal people.	
3 <sup>rd</sup>	1 <sup>st</sup>	Mineral Resources: Use and exploitation.	
	2 <sup>nd</sup>	Environmental effects of extracting and using mineral resources.	
	3 <sup>rd</sup>	Food Resources: World food problems.	
	4 <sup>th</sup>	Changes caused by agriculture and over grazing.	
4 <sup>th</sup>	1 <sup>st</sup>	Effects of modern agriculture, fertilizers pesticides problems, water logging, salinity.	
	2 <sup>nd</sup>	Energy Resources: Growing energy need, renewable and nonrenewable energy sources, use of alternate energy sources, case studies.	
	3 <sup>rd</sup>	Land Resources: Land as a resource ,land degradation ,man induces Landslides, soil erosion, and desertification.	
	4 <sup>th</sup>	Role of individual in conservation of natural resources.	
5 <sup>th</sup>	1 <sup>st</sup>	Equitable use of resources for sustainable lifestyles.	
	2 <sup>nd</sup>	<b>Unit 3: Systems</b> Concept of an ecosystem	
	3 <sup>rd</sup>	Structure and function of an ecosystem	
	4 <sup>th</sup>	Producers, consumers, decomposers	

6 <sup>th</sup>	1 <sup>st</sup>	Energy flow in the ecosystems.
	2 <sup>nd</sup>	Ecological succession.
	3 <sup>rd</sup>	Food chains, food web sand ecological pyramids
	4 <sup>th</sup>	Introduction, types, characteristic features, structure and function of the following ecosystem.
7 <sup>th</sup>	1 <sup>st</sup>	Forest ecosystem.
	2 <sup>nd</sup>	Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).
	3 <sup>rd</sup>	<b>Unit 4: Biodiversity and it's Conservation</b> Introduction-Definition: genetics, species and ecosystem diversity.
	4 <sup>th</sup>	Biogeographically classification of India.
8 <sup>th</sup>	1 <sup>st</sup>	Value of biodiversity: consumptive use
	2 <sup>nd</sup>	Value of biodiversity: productive use
	3 <sup>rd</sup>	Social ethical, aesthetic and opt in values.
	4 <sup>th</sup>	Biodiversity at global.
9 <sup>th</sup>	1 <sup>st</sup>	National and local level.
	2 <sup>nd</sup>	Threats to biodiversity: Habitats loss
	3 <sup>rd</sup>	Threats to biodiversity: poaching of wild life
	4 <sup>th</sup>	Threats to biodiversity: man wildlife conflicts.
10 <sup>th</sup>	1 <sup>st</sup>	<b>Unit 5: Environmental Pollution</b> Definition Causes, effects and control measures of: Air pollution.
	2 <sup>nd</sup>	Water pollution.
	3 <sup>rd</sup>	Soil pollution
	4 <sup>th</sup>	Marine pollution
11 <sup>th</sup>	1 <sup>st</sup>	<b>INTERNAL ASSESMENT</b>
	2 <sup>nd</sup>	<b>INTERNAL ASSESMENT</b>
	3 <sup>rd</sup>	Noise pollution
	4 <sup>th</sup>	Thermal pollution

12 <sup>th</sup>	1 <sup>st</sup>	Nuclear hazards.
	2 <sup>nd</sup>	<b>Solid waste Management: Causes, effects</b>
	3 <sup>rd</sup>	Control measures of urban and industrial wastes.
	4 <sup>th</sup>	Role of an individual in prevention of pollution.
13 <sup>th</sup>	1 <sup>st</sup>	Disaster management: Floods, earth quake, cyclone and landslides
	2 <sup>nd</sup>	<b>Unit 6: Social issues and the Environment</b> From unsustainable to sustainable development.
	3 <sup>rd</sup>	Urban problems related to energy.
	4 <sup>th</sup>	Water conservation, rain water harvesting,
14 <sup>th</sup>	1 <sup>st</sup>	Water shed management.
	2 <sup>nd</sup>	Resettlement and rehabilitation of people, its problems and concern.
	3 <sup>rd</sup>	Environmental ethics: issue and possible solutions.
	4 <sup>th</sup>	Climate change, global warming
15 <sup>th</sup>	1 <sup>st</sup>	acid rain, ozone layer depletion
	2 <sup>nd</sup>	nuclear accidents and holocaust, case studies
	3 <sup>rd</sup>	Air (prevention and control of pollution) Act
	4 <sup>th</sup>	Water (prevention and control of pollution) Act.
16 <sup>th</sup>	1 <sup>st</sup>	Public awareness.
	2 <sup>nd</sup>	<b>Unit 7: Human population and the environment</b> Population growth and variation among nations.
	3 <sup>rd</sup>	Population explosion-family welfare program.
	4 <sup>th</sup>	Environment and human health.
17 <sup>th</sup>	1 <sup>st</sup>	Human rights.
	2 <sup>nd</sup>	Value education
	3 <sup>rd</sup>	Role of information technology in environment and human health
	4 <sup>th</sup>	Revision.