NILASAILAINSTITUTEOF SCIENCE&TECHNOLOGY
SERGARH-756060, BALASORE (ODISHA)
(ApprovedbyAICTE&affiliatedtoSCTE&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 asper 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 it's 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: MECHANICAL ENGINEERING	Semester: 3rd	**Name of theTeaching Faculty:** Er. Amlan Nayak
		SESSION:2023-24 **EXAMINATION:** 2023(W)
Week	**Class Day**	**Topics to be covered**
1st	**1st**	Introduction to The Multidisciplinary nature of environmental studies
	2nd	**unit-1: The Multidisciplinary nature of environmental studies** The Multidisciplinary nature of environmental studies: Definition, scope and importance.
	3rd	Need for public awareness.
	4th	**unit-2 : Natural Resources** Renewable and non renewable resources
2nd	**1st**	Natural resources and associated problems.
	2nd	Forest resources: Use and over-exploitation, deforestation, case studies, Use and over-exploitation.
	3rd	Deforestation, case studies.
	4th	Timber extraction mining, dams and their effects on forests and tribal people.
3rd	**1st**	Mineral Resources: Use and exploitation.
	2nd	Environmental effects of extracting and using mineral resources.
	3rd	Food Resources: World food problems.
	4th	Changes caused by agriculture and over grazing.
4th	**1st**	Effects of modern agriculture, fertilizers pesticides problems, water logging, salinity.
	2nd	Energy Resources: Growing energy need, renewable and nonrenewable energy sources, use of alternate energy sources, case studies.
	3rd	Land Resources: Land as a resource ,land degradation ,man induces Landslides, soil erosion, and desertification.
	4th	Role of individual in conservation of natural resources.
5th	**1st**	Equitable use of resources for sustainable lifestyles.
	2nd	**Unit 3: Systems** Concept of an ecosystem
	3rd	Structure and function of an ecosystem
	4th	Producers, consumers, decomposers

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

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