

## Lesson Plan

**Discipline: Mechanical, Semester: 3RD, Name of Faculty : SRITAM KUMAR ROUT**

<b>Subject:</b> Environmental studies	<b>No. of days/ week Class allotted: 4</b>	<b>Semester From Date: 15.9.2022</b> <b>22.12.2022</b>	<b>To date :</b>
<b>Week</b>	<b>Class Day</b>	<b>Theory</b>	
<b>1st</b>	<b>1st</b>	The Multidisciplinary nature of environmental studies Introduction to subject	
	<b>2nd</b>	Definition, scope and importance	
	<b>3rd</b>	Need for public awareness.	
	<b>4th</b>	Some case studies and review of 1 <sup>st</sup> chapter	
<b>2nd</b>	<b>1st</b>	Natural Resources,	
	<b>2nd</b>	Renewable and non renewable resources	
	<b>3rd</b>	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.	
	<b>4th</b>	Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems.	
<b>3rd</b>	<b>1st</b>	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.	
	<b>2nd</b>	Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity, .	
	<b>3rd</b>	Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources,	
	<b>4th</b>	case studies.	
<b>4th</b>	<b>1st</b>	Land Resources: Land as a resource, land degradation	
	<b>2nd</b>	, man induces landslides, soil erosion, and desertification.	
	<b>3rd</b>	Equitable use of resources for sustainable life styles.	
	<b>4th</b>	Role of individual in conservation of natural resources.	
<b>5th</b>	<b>1st</b>	Systems- Concept of an eco system.	
	<b>2nd</b>	Structure and function of an eco system • Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).•	
	<b>3rd</b>	Producers, consumers, decomposers	
	<b>4th</b>	Energy flow in the eco systems	
<b>6th</b>	<b>1st</b>	Ecological succession	
	<b>2nd</b>	Food chains, food webs	
	<b>3rd</b>	ecological pyramids- Introduction• , types, characteristic features,	
	<b>4th</b>	structure and function of the: Forest ecosystem:	
<b>7th</b>	<b>1st</b>	structure and function of the: pond ecosystem	
	<b>2nd</b>	structure and function of the: lake ecosystem:	
	<b>3rd</b>	structure and function of the: river ecosystem:	

	4th	structure and function of the: stream ecosystem:
8th	1st	structure and function of the ocean ecosystem:
	2nd	structure and function of the estuaries ecosystem:
	3rd	Unit test
	4th	discussion
9th	1st	<b>Biodiversity and it's Conservation- introduction</b>
	2nd	Introduction-Definition: genetics, species and ecosystem diversity.
	3rd	Biogeographically classification of India.
	4th	Value of biodiversity: consumptive use, productive use,
10th	1st	social ethical, aesthetic and optin values
	2nd	Biodiversity at global, national and local level.
	3rd	Threats to biodiversity: Habitats loss, poaching of wild life,
	4th	Man wildlife conflicts.
11th	1st	Environmental Pollution.
	2nd	Definition Causes, effects and control measures of Air pollution.
	3rd	Definition Causes, effects and control measures of water pollution.
	4th	Definition Causes, effects and control measures of soil pollution.
12th	1st	Definition Causes, effects and control measures of marine pollution.
	2nd	Definition Causes, effects and control measures of noise pollution.
	3rd	Definition Causes, effects and control measures of thermal pollution.
	4th	Definition Causes, effects and control measures of nuclear hazards
13th	1st	waste Management: Causes, effects and control measures of urban and industrial wastes
	2nd	waste Management: Causes, effects and control measures of urban and industrial wastes
	3rd	Role of an individual in prevention of pollution
	4th	Disaster management: Floods, earth quake, cyclone and landslides.
14th	1st	Form unsustainable to sustainable development. Urban problems related to energy.
	2nd	Water conservation, rain water harvesting, water shed management
	3rd	Resettlement and rehabilitation of people; its problems and concern.
	4th	Environmental ethics: issue and possible solutions.
15th	1st	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust
	2nd	Case studies.
	3rd	Air (prevention and control of pollution) Act. Water (prevention and control of pollution) Act. Public awareness.
	4th	Human population and the environment
16th	1st	Population growth and variation among nations.
	2nd	Population explosion- family welfare program.

	3rd,	Environment and human health. Human rights. Value education
	4th	Role of information technology in environment and human health.

Sunita Kumar Rout

Concerned faculty

P. K. Somentrao  
HOD 20/9/22

Govt. Polytechnic Kandhamal

C.S  
K. K. Rout  
Principal

Govt. Polytechnic Kandhamal  
Phulbani