

ACADEMIC LESSON PLAN FOR WINTER 2023
DEPT. OF CIVIL ENGG. GOVT.POLYTECHNIC BALASORE
NAME OF THE FACULTY – ANKITA SWAIN
ENVIRONMENTAL STUDIES

Course code- Th-5
 Theory – 4 P/W
 Total period – 60 P/Sem
 Examination – 3hrs
 Semester – 3rd Civil

Class test- 20
 End semester exam-80
 Total mark- 100
 Start From- 15th Sept.

WEEK	CLASS	TOPIC
1 st	1 st	The Multidisciplinary nature of environmental studies Definition
	2 nd	scope
	3 rd	importance
	4 th	Need for public awareness
2 nd	1 st	Natural Resources Renewable and non renewable resources:
	2 nd	Natural resources and associated problems
	3 rd	Forest resources: Use and over-exploitation, deforestation, case studies
	4 th	Timber extraction mining, dams and their effects on forests and tribalpeople.
3 rd	1 st	Water resources: Use and over-utilization of surface and ground water,
	2 nd	floods, drought, conflicts over water, dam's benefits and problems
	3 rd	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineralresources
	4 th	Food Resources: World food problems, changes caused by agriculture and over grazing
4 th	1 st	effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity,.

	2 nd	Energy Resources: Growing energy need, renewable and non- renewable energy sources
	3 rd	use of alternate energy sources, case studies
	4 th	Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification.
5 th	1 st	Role of individual in conservation of natural resources
	2 nd	Equitable use of resources for sustainable life styles
	3 rd	Systems: Concept of an eco system.
	4 th	Structure and function of an eco system
6 th	1 st	Producers, consumers, decomposers
	2 nd	Energy flow in the eco systems
	3 rd	Ecological succession.
	4 th	Food chains, food webs and ecological pyramids
7 th	1 st	Introduction, types, characteristic features, structure and function of the following eco system:
	2 nd	Forest ecosystem:
	3 rd	Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).
	4 th	Biodiversity and its Conservation Introduction-Definition: genetics, species and ecosystem diversity
8 th	1 st	Biogeographically classification of India.
	2 nd	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and other values
	3 rd	Biodiversity at global, national and local level
	4 th	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts
9 th	1 st	Environmental Pollution. Definition Causes, effects and control measures of:
	2 nd	Air pollution
	3 rd	Water pollution
	4 th	Soil pollution
10 th	1 st	Marine pollution
	2 nd	Noise pollution.

	3 rd	Thermal pollution
	4 th	Nuclear hazards
11 th	1 st	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
	2 nd	Role of an individual in prevention of pollution
	3 rd	Disaster management: Floods, earth quake, cyclone and landslides
	4 th	:Social issues and the Environment Form unsustainable to sustainable development
12 th	1 st	Urban problems related to energy.
	2 nd	Water conservation, rain water harvesting, water shed management.
	3 rd	Resettlement and rehabilitation of people; its problems and concern
	4 th	Environmental ethics: issue and possible solutions
13 th	1 st	Climatechange, globalwarming,acidrain,ozonelayerdepletion, nuclear accidents and holocaust, case studies
	2 nd	Air (prevention and control of pollution) Act.
	3 rd	Water (prevention and control of pollution) Act.
	4 th	Public awareness
14 th	1 st	Human population and the environment Population growth and variation among nations
	2 nd	Population explosion- family welfare program.
	3 rd	Environment and humanhealth
	4 th	Human rights
15 th	1 st	Value education
	2 nd	Role of information technology in environment and human health.
	3 rd	Revision and Previous year question dicussion
	4 th	Revision and Previous year question dicussion