

GOVT. POLYTECHNIC MAYURBHANJ LESSON PLAN- 2024/25 (WINTER)

Discipline : CIVIL ENGG.		Semester: 3rd		Name of the Teaching Faculty :SUBINOY BANERJEE		
Subject : ENVIRONMENTAL STUDIES (TH.5)		No. of Days / per week class allotted : 04		Semester From date : 06.08.2024 To Date : 16.12.2024		
MONTH	Week	Day	Unit	Topics		
AUGUST	2nd		UNIT-I	The Multidisciplinary nature of environmental studies		
		2nd		Definition, scope and importance		
		4th		Need for public awareness.		
		6th		Question Discussion		
	3rd			UNIT-II	Natural Resources Renewable and non renewable resources:	
		1st		a) Natural resources and associated problems.		
		2nd		Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people.		
		6th		Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems.		
	4th	2nd		Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.		
		4th		Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity,.		
		6th		Question Discussion		
	5th	2nd		CLASS TEST-1		
		4th		Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies.		
		6th		Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification.		

SEPTEMBER	1st	1st		b) Role of individual in conservation of natural resources.	
		2nd		c) Equitable use of resources for sustainable life styles.	
		4th		Question Discussion	
			UNIT-III	Systems	
	2nd	1st		Concept of an eco system.	
		2nd		Structure and function of an eco system.	
		4th		Producers, consumers,decomposers.	
		6th		Energy flow in the eco systems.	
	3rd	4th		Ecological succession.	
		6th		Food chains, food webs and ecological pyramids.	
	4th	1st		INTERNAL ASSESSMENT	
		2nd		INTERNAL ASSESSMENT	
		4th		Question Discussion	
		6th		Introduction, types, characteristic features, structure and function of the following eco system:	
	5th	1st		Forest ecosystem:	
	OCTOBER	1st	2nd		Aquatic eco systems (ponds, streams,lakes)
			4th		Aquatic eco systems (rivers, oceans, estuaries).
6th				Question Discussion	
			UNIT-IV	Biodiversity and it's Conservation	
3rd		1st		Introduction-Definition: genetics, species and ecosystem diversity.	
		2nd		Biogeographically classification of India.	
		4th		Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optinvalues.	
		6th		Biodiversity at global, national and local level.	
		1st		Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.	
		2nd		Question Discussion	

NOVEMBER

4th		UNIT-V	Environmental Pollution.
	4th		Definition Causes, effects and control measures of: a) Air pollution.
5th	6th		b) Water pollution.
	1st		b) Water pollution.
	2nd		c) Soil pollution
1st	6th		d) Marine pollution
2nd	1st		e) Noise pollution.
	2nd		Question Discussion
	4th		f) Thermal pollution
	6th		g) Nuclear hazards.
3rd	1st		Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
	2nd		Role of an individual in prevention of pollution.
4th		Disaster management: Floods, earth quake, cyclone and landslides.	
4th	1st		Question Discussion
		UNIT-VI	Social issues and the Environment
	2nd		From unsustainable to sustainable development.
	4th		Water conservation, rain water harvesting, water shed management.
6th			Resettlement and rehabilitation of people; its problems and concern.
			Environmental ethics: issue and possible solutions.
5th	1st		Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.
	2nd		Air (prevention and control of pollution) Act.
			Water (prevention and control of pollution) Act.

		4th		Public awareness.
		6th		Question Discussion
DECEMBER	1st	1st		CLASS TEST-2
			UNIT-VII	Human population and the environment
		2nd		Population growth and variation among nations.
		4th		Population explosion- family welfare program.
		6th		Environment and human health.
		1st		Human rights.
	2nd	2nd		Value education
		4th		Role of information technology in environment and human health.
		6th		Question Discussion