

GOVT. POLYTECHNIC MAYURBHANJ LESSON PLAN

Discipline :		Semester: 5th Sem		Name of the Teaching Faculty : ISWAR KUMAR SAHU	
Subject : ES		No. of Days / per week class allotted : 04		Semester From date : 15.09.2022	To Date : 22.12.2023
MONTH	Week	Day	UNIT	Topics	
SEPTEMBER	3rd	4th	UNIT-1	The Multidisciplinary nature of environmental studies	
	4th	1st		Definition, scope and importance	
		2nd		Need for public awareness	
			UNIT-2	Natural Resources	
		3rd		Forest resources: Use and over-exploitation, deforestation, case studies.	
	5th	4th		Timber extraction mining, dams and their effects on forests and tribal people.	
		1st		Water resources: Use and over-utilization of surface and ground water	
		2nd		Floods, drought, conflicts over water, dam's benefits and problems	
		3rd		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	
OCTOBER	2nd			Durga Puja holiday	
	3rd	1st		Effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity.	
		2nd		Class Test-1	
		3rd		Energy Resources: Growing energy need, renewable and non-renewable energy sources.	
		4th		Use of alternate energy sources, case studies. Land Resources: Landasa resource, land degradation	
	4th	1st		Man induces landslides, soil erosion, and desertification.	
		2nd		Role of individual in conservation of natural resources. Equitable use of resources for sustainable life styles.	
			UNIT-3	Systems:	
		3rd		Concept of an eco system. Structure and function of an eco system.	
		4th		Producers, consumers, decomposers. Energy flow in the eco systems.	
	5th	1st		Ecological succession. Food chains, food webs and ecological pyramids.	
		2nd		Forest ecosystem: Introduction, types, characteristic features.	
		3rd		Structure and function of Forest ecosystem.	
		4th		Aquatic eco systems (ponds, streams, lakes) Introduction, types, characteristic features.	
	1st	2nd		Rivers, ocean, sestuaries Introduction, types, characteristic features.	
			UNIT-4	Biodiversity and it's Conservation:	
		3rd		Introduction-Definition: genetics, species and ecosystem diversity.	
		4th		Biogeographically classification of India.	
	2nd	1st		Value of biodiversity: consumptive use, productive use.	
		2nd		social ethical, aesthetic and optin values.	

NOVEMBER	2nd	3rd		Rash purnima(holiday)
		4th		Biodiversity at global, national and local level
	3rd	1st		Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.
			UNIT-5	Environmental Pollution:
		2nd		Air pollution-Definition Causes, effects and control measures.
		3rd		Water pollution-Definition Causes, effects and control measures.
		4th		Soil pollution-Definition Causes, effects and control measures.
	4th	1st		Marine pollution-Definition Causes, effects and control measures.
		2nd		Noise pollution.-Definition Causes, effects and control measures.
		3rd		Thermal pollution-Definition Causes, effects and control measures.
		4th		Nuclear hazards-Definition Causes, effects and control measures.
	5th	1st		Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
		2nd		Role of an individual in prevention of pollution.
		3rd		Disaster management: Floods, earth quake, cyclone and landslides.
DECEMBER	1st		UNIT-6	Social issues and the Environment:
		4th		Form unsustainable to sustainable development. Urban problems related to energy.
	2nd	1st		Water conservation, rain water harvesting, water shed management.
		2nd		Resettlement and rehabilitation of people; its problems and concern.
		3rd		Environmental ethics: issue and possible solutions -Climate change, global warming, acid rain, ozone layer
		4th		nuclear accidents and holocaust, case studies.
	3rd	1st		Air (prevention and control of pollution) Act. Water (prevention and control of pollution) Act. Public awareness.
		2nd		Class Test-2
			UNIT-7	Human population and the environment:
		3rd		Population growth and variation among nations
	4rd	4th		Population explosion- family welfare program.
		1st		Environment and human health
		2nd		Human rights
		3rd		Value education
		4th		Role of information technology in environment and human health.