

GOVT POLYTECHNIC MAYURBHANJ			
LESSON PLAN			
ACADEMIC YEAR 2023-24			
Discipline: Mechanical Engg.		Semester: 3rd sem	Name of the teaching Faculty: SAGAR KU. MOHAPATRA
Subject: Environmental Studies		No of Days/ Week class allotted (4)	Semester: From date: 01/08/2023 To Date: 30/11/2023
MONTH	WEEK	CLASS DAY	TOPICS
AUGUST	1ST	2nd	<b>Unit 1: The Multidisciplinary nature of environmental studies</b> Definition, scope and importance
		3rd	Definition, scope and importance, Need for public awareness.
		4th	<b>Unit 2: Natural Resources, Renewable and non renewable resources:</b> Natural resources and associated problem
	2ND	1ST	Renewable and non renewable resources:
		2nd	Natural resources and associated problem
		3rd	Forest resources: Use and over-exploitation, deforestation, case studies,
		4th	Timber extraction mining, dams and their effects on forests and tribal people.
	3RD	1st	Water resources: Use and over-utilization of surface and ground water
		3rd	floods, drought, conflicts over water, dam's benefits and problems
		4th	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.
	4TH	1ST	Food Resources: World food problems ,changes caused by agriculture
		2nd	Overgrazing, effects of modern agriculture, fertilizers pesticides problems, water logging, salinity,
		3rd	Energy Resources: Growing energy need
		4th	renewable and non renewable energy sources, use of alternate energy sources, case studies
	5th	1st	Land Resources: Land as a resource ,land degradation ,man induces landslides, soil erosion, and desertification.
		2nd	Role of individual in conservation of natural resources
4th		Equitable use of resources for sustainable lifestyles.	
SEPTEMBER	2ND	1st	<b>REVISION</b>
		2nd	<b>CLASS TEST-1</b>
		4th	<b>Unit 3: Systems</b> , Concept of an ecosystem
	3RD	1ST	Concept of an ecosystem
		2nd	Structure and function of an ecosystem.
		3rd	Producers, consumers, decomposers.
		4th	Energy flow in the ecosystems.
	4TH	1st	Ecological succession.
		4th	Food chains, food web and ecological pyramids.
	5TH	1st	Introduction, types, characteristic features, structure and function of the following ecosystem:
		2nd	Forest ecosystem:
		3rd	Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries
		4th	<b>REVISION</b>
1ST	2nd	<b>Unit 4: Biodiversity and it's Conservation ;</b> Introduction-Definition: genetics, species	
	3rd	Introduction-Definition: genetics, species and ecosystem diversity.	
	4th	Biogeographically classification of India	
2ND	1st	<b>INTERNAL EXAM</b>	
	2nd	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and opt in values.	
	3rd	Biodiversity at global, national and local level.	
	4th	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.	

OCTOBER	3RD	1st	<b>Unit 5: Environmental Pollution.</b> Definition Causes, effects and control measures of: Air pollution.	
		2nd	Definition Causes, effects and control measures of: Air pollution. Water pollution.	
		3rd	Soil pollution , Marine pollution	
		4th	Noise pollution,Thermal pollution	
	4TH	3rd	Nuclear hazards.	
		4th	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.	
	5TH	1st	Role of an individual in prevention of pollution	
		2nd	Disaster management: Floods, earth quake, cyclone and landslides.	
	NOVEMBER	1ST	3rd	<b>Unit 6: Social issues and the Environment.</b> Introduction
			4th	unsustainable to sustainable development
2ND		1st	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.	
3RD		1st	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.	
		2nd	Air (prevention and control of pollution) Act.	
		3rd	Water (prevention and control of pollution) Act	
		4th	Public awareness.	
4TH		1st	<b>Unit 7: Human population and the environment.</b> Introduction	
		2nd	Population growth and variation among nations	
		3rd	Population explosion-family welfare program	
		4th	Environment and human health.	
5TH		2nd	Human rights.	
		3rd	Value education ,Role of information technology in environment and human health.	
	4th	<b>CLASS TEST-2</b>		



HOD, Mechanical  
Govt. polytechnic  
Mayurbhanj

Subject Expert  
Govt. polytechnic  
Mayurbhanj

Academic Co-ordinator  
Govt. polytechnic  
Mayurbhanj

Co-ordinator  
polytechnic  
rbhanj







