

GOVT POLYTECHNIC MAYURBHANJ LESSON PLAN

ACADEMIC YEAR 2023-24

Discipline: Mechanical Engg.		Semester: 3rd sem	Name of the teaching Faculty: SAGAR KU. MOHAPATRA
Subject: Enviromental Studies		No of Days/ Week class alloted (4)	Semester: From date: 01/08/2023 To Date: 30/11/2023
MONTH	WEEK	CLASS DAY	TOPICS
AUGUST	1ST	3RD	Unit 1: The Multidisciplinary nature of environmental studies
		4TH	Definition, scope and importance, Need for public awareness.
		5TH	Unit 2: Natural Resources
	2ND	1ST	Renewable and non renewable resources:
		3RD	a) Natural resources and associated problem
		4TH	Forest resources: Use and over-exploitation, deforestation, case studies,
		5TH	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.
		5TH	Food Resources: World food problems ,changes caused by agriculture
	4TH	1ST	Overgrazing,effectsofmodernagriculture,fertilizers pesticidesproblems, water logging, salinity,
		4TH	Energy Resources: Growing energy need
SEPTEMBER	1ST	5TH	renewable and non renewable energy sources, use of alternate energy sources, case studies
	2ND	1ST	Land Resources: Land as a resource ,land degradation ,man induces landslides, soil erosion, and desertification.
		4TH	b) Role of individual in conservation of natural resources
		5TH	c) Equitable use of resources for sustainable lifestyles.
	3RD	1ST	CLASS TEST-1
		3RD	Unit 3: Systems
		4TH	Concept of an ecosystem
		5TH	Structure and function of an ecosystem.

	4TH	1ST	Producers, consumers, decomposers.
		4TH	Energy flow in the ecosystems.
		5TH	Ecological succession.
	5TH	1ST	Food chains, food web sand ecological pyramids.
		3RD	Introduction, types, characteristic features, structure and function of the following ecosystem:
		4TH	Forest ecosystem:
OCTOBER	1ST	3RD	Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries
		4TH	INTERNAL EXAM
		5TH	Unit 4: Biodiversity and it's Conservation
	2ND	1ST	Introduction-Definition: genetics, species and ecosystem diversity.
		3RD	Biogeographically classification of India
		4TH	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and opt in values.
		5TH	Biodiversity at global, national and local level.
	3RD	1ST	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.
		3RD	Unit 5: Environmental Pollution.
		4TH	Definition Causes, effects and control measures of: Air pollution. Water pollution.
		5TH	Soil pollution , Marine pollution
	4TH	3RD	Noise pollution, Thermal pollution
		4TH	g) Nuclear hazards.
		5TH	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
	5TH	1ST	Role of an individual in prevention of pollution
	1ST	3RD	Disaster management: Floods, earth quake, cyclone and landslides.
		4TH	Unit 6: Social issues and the Environment
		5TH	unsustainable to sustainable development
		1ST	Urban problems related to energy
		3RD	Water conservation, rain water harvesting, water shed management

NOVEMBER	2ND	4TH	Resettlement and rehabilitation of people; its problems and concern.
		5TH	Environmental ethics: issue and possible solutions.
	3RD	1ST	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.
		3RD	Air (prevention and control of pollution) Act.
		4TH	Water (prevention and control of pollution) Act
		5TH	Public awareness.
	4TH	1ST	Unit 7: Human population and the environment
		3RD	Population growth and variation among nations
		4TH	Population explosion-family welfare program
		5TH	Environment and human health.
	5TH	4TH	Human rights.
		5TH	Value education ,Role of information technology in environment and human health.