

## DEPARTMENT OF MINING ENGINEERING

## LESSON PLAN

Discipline: MINING	Semester: 3rd	Name of the Teaching faculty: Malaya Ranjan Jena	
Subject: ENVIRON MENTAL	No of Days/Week class allotted: 4	Semester from Date: 15/09/22	To Date: 22/12/22
Week	Class Day	Topics	
1st	1	The Multidisciplinary nature of environmental studies:	
	2	Forest resources: Use and over-exploitation, deforestation, case studies.	
	3rd	Timber extraction mining, dams and their effects on forests and tribal people.	
	4th	Water resources.	
2nd	1st	Mineral Resources: Use and exploitation.	
	2nd	Environmental effects of extracting and using mineral resources.	
	3rd	Food Resources: World food problems, changes caused by agriculture	
	4th	Effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity.	
3rd	1st	Energy Resources: Growing energy need, renewable and non-renewable energy	
	2nd	use of alternate energy sources, case studies.	
	3rd	Land Resources: Land as a resource, land degradation, man induces landslides	
	4th	Soil erosion, and desertification.	
4th	1st	Role of individual in conservation of natural resources	
	2nd	Equitable use of resources for sustainable life styles.	
	3rd	<b>CLASS TEST-I</b>	
	4th	Concept of an eco system.	
5th	1st	Structure and function of an eco system.	
	2nd	Producers, consumers, decomposers.	
	3rd	Energy flow in the eco systems.	
	4th	Ecological succession.	
6th	1st	Food chains, food webs	
	2nd	Ecological pyramids.	
	3rd	Forest ecosystem.	
	4th	Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).	
7th	1st	Introduction-Definition: genetics, species and ecosystem diversity.	
	2nd	Biogeographically classification of India.	
	3rd	Value of biodiversity: consumptive use, productive use,	
	4th	social ethical, aesthetic and optin values.	
8th	1st	Biodiversity at global national and local level.	
	2nd	<b>INTERNAL-I</b>	
	3rd	Threats to biodiversity: Habitats loss.	
	4th	Poaching of wild life, man wildlife conflicts.	
	1st	Definition Causes, effects and control measures of: Air pollution	

9th	2nd	Definition Causes, effects and control measures of: Water pollution.
	3rd	Definition Causes, effects and control measures of: Soil pollution
	4th	Definition Causes, effects and control measures of: Marine pollution
10th	1st	Definition Causes, effects and control measures of: Noise pollution.
	2nd	Definition Causes, effects and control measures of: Thermal pollution
	3rd	Definition Causes, effects and control measures of: Nuclear hazards.
	4th	Solid waste Management: Causes, effects and control measures of urban
11th	1st	Solid waste Management: industrial wastes.
	2nd	Role of an individual in prevention of pollution.
	3rd	Disaster management: Floods, earth quake, cyclone and landslides.
	4th	Form unsustainable to sustainable development.
12th	1st	<b>CLASS TEST-II</b>
	2nd	Urban problems related to energy.
	3rd	Water conservation, rain water harvesting, water shed management.
	4th	Resettlement and rehabilitation of people; its problems and concern.
13th	1st	Environmental ethics: issue and possible solutions.
	2nd	Climate change, global warming, acid rain.
	3rd	Ozone layer depletion, nuclear accidents and holocaust, case studies.
	4th	Air (prevention and control of pollution) Act.
14th	1st	Water (prevention and control of pollution) Act. Public awareness. Population growth and variation among nations.
	2nd	Population explosion- family welfare program. Environment and human health. Human rights. Value education. Role of information technology in environment and human health.
	3rd	<b>INTERNAL-II</b>
	4th	REVISION/DOUBT CLEARING CLASS
15th	1st	REVISION/DOUBT CLEARING CLASS
	2nd	REVISION/DOUBT CLEARING CLASS
	3rd	REVISION/DOUBT CLEARING CLASS
	4th	REVISION/DOUBT CLEARING CLASS

**Learning Resources:**

Sl.No	Title of the Book	Name of Authors
1	Textbook of Environmental studies	Erach Bharucha
2	Fundamental concepts in Environmental Studies	D.D. Mishra, S.Chand
3	Text book of Environmental Studies	K.Raghavan Nambiar
4	Environmental Engineering	V.M.Domkundwar, Dhanpat Rai & Co

*Malaya Ranjan Sena*  
Signature of Faculty