

LESSON PLAN

Discipline:

Civil Engg. ,UGMIT Rayagada

Semester:

3rd

Subject:

Th5. ENVIRONMENTAL STUDIES

Class allotted:

4P/week

Session:

2022 Winter

Week	Class Day	Theory Topics	Remarks
1	1-4	Unit 1: The Multidisciplinary nature of environmental studies Definition, scope and importance, Need for public awareness.	
2	5-8	Unit 2: Natural Resources Renewable and non renewable resources: a) Natural resources and associated problems. Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people.	
3	9-12	Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems. <ul style="list-style-type: none"> • Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources. • Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity,. • Energy Resources: Growing energy need, renewable and nonrenewable energy sources, use of alternate energy sources, case studies. 	
4	13-16	<ul style="list-style-type: none"> • Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification. b) Role of individual in conservation of natural resources. c) Equitable use of resources for sustainable life styles. Unit 3: Systems <ul style="list-style-type: none"> • Concept of an eco system. • Structure and function of an eco system. 	
5	17-20	<ul style="list-style-type: none"> • Producers, consumers, decomposers. • Energy flow in the eco systems. • Ecological succession. • Food chains, food webs and ecological pyramids. • Introduction, types, characteristic features, structure and function of the following eco system: 	
6	21-24	<ul style="list-style-type: none"> • Forest ecosystem: • Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries). Unit 4: Biodiversity and it's Conservation <ul style="list-style-type: none"> • Introduction-Definition: genetics, species and ecosystem diversity. 	
7	25-28	<ul style="list-style-type: none"> • Biogeographically classification of India. • Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and option values. • Biodiversity at global, national and local level. 	

8	29-32	<ul style="list-style-type: none"> • Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts. Unit 5: Environmental Pollution. Definition Causes, effects and control measures of: <ol style="list-style-type: none"> a) Air pollution. b) Water pollution. 	
9	33-36	<ol style="list-style-type: none"> c) Soil pollution d) Marine pollution e) Noise pollution. 	
10	37-40	f) Thermal pollution g) Nuclear hazards. Solid waste Management: Causes, effects and control measures of urban and industrial wastes.	
11	41-44	Role of an individual in prevention of pollution. Disaster management: Floods, earth quake, cyclone and landslides. Unit 6: Social issues and the Environment <ul style="list-style-type: none"> • Form unsustainable to sustainable development. • Urban problems related to energy. • Water conservation, rain water harvesting, water shed management. 	
12	45-48	<ul style="list-style-type: none"> • Resettlement and rehabilitation of people; its problems and concern. • Environmental ethics: issue and possible solutions. • Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies. 	
13	49-52	<ul style="list-style-type: none"> • Air (prevention and control of pollution) Act. • Water (prevention and control of pollution) Act. • Public awareness. 	
14	53-56	Unit 7: Human population and the environment <ul style="list-style-type: none"> • Population growth and variation among nations. • Population explosion- family welfare program. • Environment and human health. 	
15	57-60	<ul style="list-style-type: none"> • Human rights. • Value education • Role of information technology in environment and human health. 	

Signature of Faculty:

Chimmaye Maharame
D-16/9/22

Signature of HOD:

Manas Jayan Poddhan
16/9/2022