LESSON PLAN (WINTER-2021)

DEPARTMENT OF CIVIL ENGINEERING

SUBJECT- ENVIRONMENTAL STUDIES (Th 05) , 3rd SEMESTER

FACULTY-SUDHASHREE MUNDA

TOPICS TO BE COVERED	WEEK/MONTH
UNIT 1: THE MULTIDISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES Definition, scope and importance Need for public awareness	1st
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.	2nd
-Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems. -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 non renewable energy sources, use of alternate energy sources, case studies. Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, and desertification.	3rd
B) Role of individual in conservation of natural resources.	
C) Equitable use of resources for sustainable life styles.	
REVISION, Q/A Discussion	4th
-Concept of an eco system -Structure and function of an eco system. -Producers, consumers, decomposers.	
-Energy flow in the eco systems. -Ecological succession.	
-Food chains, food webs and ecological pyramids.	5th
-Introduction, types, characteristic features, structure and function of the following eco system: •Forest ecosystem •Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).	
REVISION, Q/A Discussion	
CLASS TEST – 1	6th
UNIT 4: BIODIVERSITY AND IT'S CONSERVATION	
Introduction-Definition: genetics, species and ecosystem diversity.	
Biogeographically classification of India.	7th
Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optin values. Biodiversity at global, national and local level.	
Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.	
REVISION, Q/A Discussion	
UNIT 5: ENVIRONMENTAL POLLUTION.	
Definition Causes, effects and control measures of:	

a) Air pollution. b) Water pollution. c) Soil pollution	8th
Definition Causes, effects and control measures of: d) Marine pollution e) Noise pollution	
Definition Causes, effects and control measures of: f) Thermal pollution g) Nuclear hazards.	
Solid waste Management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution.	9th
Disaster management: Floods, earth quake, cyclone and landslides.	
REVISION, Q/A Discussion	
UNIT 6: SOCIAL ISSUES AND THE ENVIRONMENT	10th
Form unsustainable to sustainable development. Urban problems related to energy.	
Water conservation, rain water harvesting, water shed management.	
Resettlement and rehabilitation of people; its problems and concern.	
CLASS TEST - 2 Environmental ethics: issue and possible solutions.	11th
Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.	
Air (prevention and control of pollution) Act.	
Water (prevention and control of pollution) Act. Public awareness.	12th
REVISION, Q/A Discussion	
UNIT 7: HUMAN POPULATION AND THE ENVIRONMENT	
Population growth and variation among nations.	
Population explosion- family welfare program. Environment and human health.	13th
Human rights. Value education	
Role of information technology in environment and human health.	
REVISION, Q/A Discussion	14th
MOCK TEST	

Signature of Faculty

01/10/2021

HOD

Department of Civil Engineering