JHARKHAND Rai University
UGC RECOGNISED UNIVERSITY
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Lesson plan & tracking													
Program: B.Sc. (Hons.) Agriculture				**Session: 2022-2023**						**Year: 2022, Semester: III**			
Course: Environmental Studies and Disaster Management (Theory); Credit: 3(2+1); Course: 13A.214													
Name of the faculty: Dr. Neeraj				**Commencement date: 28.08.2022**						**Date of closure:31.12.2022**			
Lec No.	**Weeks**	**Unit**		**Blended Mode**									
			Topics To Be Covered	**ICT Tools**	**Resources**	**Activity**	**Date**	**Duration**	**Tracking of Lecture**	**Related course outcome**	**Signature of Faculty**	**Signature of HOD**	**Remarks (if any)**
1	1	1	Multidisciplinary nature of environmental studies Definition, scope and importance. Natural Resources: Renewable and non-renewable resources,										
2	1	1	Natural resources and associated problems. a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people.										
3	2	1	b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.										

4	2	1	c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.										
5	3	1	d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.										
6	3	1	e) Energy resources: Growing energy needs, renewable and nonrenewable energy sources, use of alternate energy sources. Case studies.										
7	4	1	f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification. • Role of an individual in conservation of natural resources. • Equitable use of resources for sustainable lifestyles.Ecosystems: Concept of an ecosystem, Structure and function of an ecosystem, Producers, consumers and decomposers,										
8	4	1	Energy flow in the ecosystem. Ecological succession, Food chains, food webs and Ecological pyramids. Introduction, types, characteristic features, structure and function of the following ecosystem: a. Forest ecosystem b. Grassland ecosystem c. Desert ecosystem d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).										

9	5	2	Biodiversity and its conservation: - Introduction, definition, genetic, species & ecosystem diversity and biogeographical classification of India.										
10	5	2	Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values. Biodiversity at global, National and local levels, India as a mega-diversity nation.										
11	6	2	Hot-sports of biodiversity. Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts. Endangered and endemic species of India. Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.										
12	6	2	Environmental Pollution: definition, cause, effects and control measures of: a. Air pollution b. Water pollution c. Soil pollution										
13	7	2	d. Marine pollution e. Noise pollution f. Thermal pollution g. Nuclear hazards.										

14	7	2	Solid Waste Management: causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution. Social Issues and the Environment: From Unsustainable to Sustainable development, Urban problems related to energy, Water conservation, rain water harvesting, watershed management.										
15	8	2	Environmental ethics: Issues and possible solutions, climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. dies.										
16	8	3	Wasteland reclamation. Consumerism and waste products. Environment Protection Act. Air (Prevention and Control of Pollution) Act.										
17	9	3	Water (Prevention and control of Pollution) Act. Wildlife Protection Act. Forest Conservation Act.										
18	9	3	Issues involved in enforcement of environmental legislation. Public awareness.										
19	10	3	Human Population and the Environment: population growth, variation among nations, population explosion,										
20	10	3	Family Welfare Programme. Environment and human health:										

21	11	3	Human Rights, Value Education, HIV/AIDS. Women and Child Welfare.										
22	11	3	Role of Information Technology in Environment and human health.										
23	12	4	Natural Disasters- Meaning and nature of natural disasters, their types and effects. Floods, drought, cyclone, earthquakes, landslides, avalanches, volcanic eruptions										
24	12	4	Heat and cold waves, Climatic change: global warming, Sea level rise, ozone depletion. Man Made Disasters- Nuclear disasters										
25	13	4	chemical disasters, biological disasters, building fire, coal fire, forest fire, oil fire, air pollution, water pollution,										
26	13	4	deforestation, industrial waste water pollution, road accidents, rail accidents, air accidents, sea accidents.										
27	14	4	Disaster Management- Effect to migrate natural disaster at national and global levels. International strategy for disaster reduction. Concept of disaster management, national disaster management framework;										

28	14	4	financial arrangements; role of NGOs, community –based organizations and media. Central, state, district and local administration; Armed forces in disaster response; Disaster response; Police and other organizations.										