

ACA/R/05

LESSON PLAN

Subject : ENVIRONMENTAL STUDIES

Class : BPT II (SEMESTER- IV)

Class In-charge : Dr. Neha Kulkarni (PT)

Subject In-charge : Dr. Philomena dsouza (PT)

Total Hours prescribed: - Theory- 20 hrs and Practical- 16 hrs

Sr No	Topic	No. of teaching	Mode of teaching	Name of Staff	Remarks
Multidisciplinary nature of environmental studies					
1	Definition, scope and importance Need for public awareness. III	1	Lecture+ Group discussion	Dr. Philomena Dsouza (PT)	

Natural Resources					
2	<ul style="list-style-type: none"> • Renewable and Non renewable resources • Natural resources and associated problems. • Forest resources: Use and over-exploitation, deforestation, case studies. • Timber extraction, mining, dams and their effects on forest and tribal people. • Water resources : Use and over-utilization of surface and ground water, • Floods, drought, conflicts over water, dams-benefits and problems. • Mineral resources: Use and exploitation, 	1	Lecture + Seminar	Dr. Philomena Dsouza (PT)	

	environmental effects of extracting and using mineral resources, case studies.				
3	<ul style="list-style-type: none"> • Food resources : World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water • Logging, salinity, case studies. • Energy resources : Growing energy needs, renewable and non-renewable • Energy sources, use of alternate energy sources. Case studies. • Land resources : Land as a resource, land degradation, man induced • Landslides, soil erosion and desertification. <p>Role of an individual in conservation of natural resources.</p> <p>Equitable use of resources for sustainable lifestyles</p>	1	Lecture + Seminar	Dr. Philomena Dsouza (PT)	
Ecosystems					
4	<ul style="list-style-type: none"> • Concept of an ecosystem. IV • Structure and function of an ecosystem. • Producers, consumers and decomposers. • Energy flow in the ecosystem. • Ecological succession. • Food chains, food webs and ecological pyramids. 	1	Lecture + Group discussion	Dr. Philomena Dsouza (PT)	
5	<ul style="list-style-type: none"> • Introduction, types, characteristic features, structure and function of the following ecosystem :- <ul style="list-style-type: none"> ➤ Forest ecosystem ➤ Grassland ecosystem ➤ Desert ecosystem • Aquatic ecosystems (ponds, streams, lakes, rivers oceans, estuaries) 	1	Lecture + Group discussion	Dr. Philomena Dsouza (PT)	

Biodiversity and its conservation					
6	<ul style="list-style-type: none"> • Introduction – Definition: genetic, species and ecosystem diversity. • Biogeographically classification of India • Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic • and option values 	Theory-1 Practical-3	Lecture + Group Discussion	Dr. Philomena Dsouza (PT)	
7	<ul style="list-style-type: none"> • Biodiversity at global, National and local levels. • India as a mega-diversity nation V • Hot-spots of biodiversity. • Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts 	1	Lecture + Group Discussion	Dr. Philomena Dsouza (PT)	
8	<ul style="list-style-type: none"> • Endangered and endemic species of India • Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity. 	1	Lecture + Group Discussion	Dr. Philomena Dsouza (PT)	
Environmental Pollution					
9	<ul style="list-style-type: none"> • Definition, Cause, effects and control measures of :- <ul style="list-style-type: none"> ➤ Air pollution ➤ Water pollution ➤ Soil pollution ➤ Marine pollution ➤ Noise pollution ➤ Thermal pollution ➤ Nuclear hazards 	Theory-1 Practical-3	Assignment	Dr. Philomena Dsouza (PT)	
10	<ul style="list-style-type: none"> • Solid waste Management: Causes, effects and control measures of urban and industrial wastes. • Role of an individual in prevention of pollution. 	1	Power point presentation + Assignment	Dr. Philomena Dsouza (PT)	
11	<ul style="list-style-type: none"> • Pollution case studies. • Disaster management: floods, earthquake, cyclone and landslides. 	1	Power point presentation + Assignment	Dr. Philomena Dsouza (PT)	
Social Issues and the Environment					

12	<ul style="list-style-type: none"> From Unsustainable to Sustainable development Urban problems related to energy Water conservation, rain water harvesting, watershed management Resettlement and rehabilitation of people; its problems and concerns. Case Studies Environmental ethics: Issues and possible solutions. 	Theory-1 Practical-2	Power point presentation + Lecture + Assignment	Dr. Philomena Dsouza (PT)	
13	<ul style="list-style-type: none"> Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies. Wasteland reclamation. Consumerism and waste products. 	1	Power point presentation + Lecture + Assignment	Dr. Philomena Dsouza (PT)	
14	<ul style="list-style-type: none"> Environment Protection Act. Air (Prevention and Control of Pollution) Act. Water (Prevention and control of Pollution) Act Wildlife Protection Act Forest Conservation Act Issues involved in enforcement of environmental legislation. <p>Public awareness</p>	1	Power point presentation + Lecture + Assignment	Dr. Philomena Dsouza (PT)	

	Human Population and the Environment				
15	<ul style="list-style-type: none"> Population growth, variation among nations. 	Theory-1 Practical-8	Lecture + Assignment	Dr. Philomena Dsouza (PT)	
16	<ul style="list-style-type: none"> Population explosion – Family Welfare Program. VII 	1	Lecture + Assignment	Dr. Philomena Dsouza (PT)	
17	.	1	Lecture +	Dr. Philomena	

	<ul style="list-style-type: none"> • Environment and human health 		Assignment	Dsouza (PT)	
18	<ul style="list-style-type: none"> • Human Rights • Value Education 	1	Lecture + Assignment	Dr. Philomena Dsouza (PT)	
19	<ul style="list-style-type: none"> • HIV/AIDS. • Women and Child Welfare 	1	Lecture + Assignment	Dr. Philomena Dsouza (PT)	
20	<ul style="list-style-type: none"> • Role of Information Technology in Environment and human health. • Case Studies. 	1	Lecture + Assignment	Dr. Philomena Dsouza (PT)	

Total Didactic Hours - 20 hours (Scheduled)

Scheduled Practical - 16 hours (Scheduled)

Total scheduled hours - 36 hours