Mangalmay Institute of Management Technology
Greater Noida (U.P.)

Lesson Plan

Program:BCA**Semester:**I **Course Code**: BCA-008 **Course Name:**Environment Studies

Course Objectives

CO 1. To acquire knowledge about natural resources, such as forest, water, mineral food & land resources, with case studies, and different types of energy sources.

CO 2. To be able to know about the Natural resources and its associated problems.

CO 3. To learn about the concept of ecosystem, structure, function, & energy flow in the ecosystem.

CO 4. To aware about Biodiversity and it Conservation and toaware of environmental pollution - air, water, thermal, marine, noise & solid waste problems.

CO 5. To learn about social issues for sustainable development and to know how human population affect environment and what are the human rights.

Session Duration: 60 Minutes

Participants: BCA First Year

Entry level knowledge and skills of students

i. Human Behavior

Equipment required in Classroom/ Laboratory/ Workshop

i. Projector
ii. White Board & Marker

Assessment Schemes

S. No.	Criteria	Marks (100)
1	CCSU End Term Examination	75
2	Internal Evaluation Scheme	25
2(a)	Teacher Assessment (Continuous Evaluation) (Assignment & Attendance)	25
2(a)(i)	Assignment -1	10
2(a)(ii)	Assignment -2	10
2(a)(iii)	Attendance (compulsory)	5

Course Outcomes

(CO1): Able to acquire knowledge about natural resources, such as forest, water, mineral food & land resources, with case studies, and different types of energy sources.

Understanding (K2) , Applying (K3)

(CO2): Able to know about the Natural resources and its associated problems.

Understanding (K2)

(CO3): Able to learn about the concept of ecosystem, structure, function, & energy flow in the ecosystem.

Understanding (K2), Applying (K3), Analysis (K4)

(CO4): Aware about Biodiversity and it Conservation and to aware of environmental pollution - air, water, thermal, marine, noise & solid waste problems.

Understanding (K2)

(CO5): Able to learn about social issues for sustainable development and to know how human population affects environment and what are the human rights

Understanding (K2), Applying (K3), Analysis (K4)

L. No.	Topics	Sub Topics	Date of implementation	Pedagogy	CO-Covered	Faculty Sign	HoD's Remark with Date
Unit – 1							
1.	Discussion about the Subject Syllabus and Learning outcomes	Course Objective & Course Outcome			**CO-1 TO CO-5**		
2.	**The Multidisciplinary Nature of Environmental Studies**	Definition,Scopeand Importance, Need for Public Awareness.		• Lecture • Group Discussion	**CO-1**		
3.		Revision of Unit 1, Discussion on University questions		• Discussion			
Unit-2							
4.	**Natural ResourcesRenewabl**	ForestResources: use and over-		• Lecture • Group Discussion	**CO-2**		

	e and Non-renewable Resources: Natural resources and associated problems: -	exploitation,defore station, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.					
5.		Continue..		• Lecture • Group Discussion			
6.		Water Resources: use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.		• Lecture • Group Discussion	**CO-2**		
7.		Continue..		• Lecture • Group Discussion			
8.		MineralResources: use and exploitation, environmental effects of extracting and using mineral resources, case studies.		• Lecture • Group Discussion	**CO-2**		
9.		Continue..		• Lecture • Group Discussion			
10.		FoodResources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.		• Lecture • Group Discussion	**CO-2**		
11.		EnergyResources: Growing energy		• Lecture • Group Discussion	**CO-2**		

		needs, renewable and nonrenewable energy sources, use of alternate energy sources, case studies					
12.		Continue..		• Lecture • Group Discussion			
13.		LandResources:Land as a resource, land degradation, man induced landslides, soil erosion and desertification. Role of an individual in conservation of natural resources.Equitable use ofresourcesforsustainablelifestyles		• Lecture • Group Discussion	**CO-2**		
14.		Continue..		• Lecture • Group Discussion			
15.		Revision of Unit 2, Discussion on University questions		• Discussion			
Unit –3							
16.	**Ecosystems**	Concept of an ecosystem,Structureandfunctionofanecosystem.		• Lecture • Group Discussion	**CO-3**		
17.		Producers, consumersandDecomposers		• Lecture • Group Discussion	**CO-3**		
18.		Energyflowintheecosystem. EcologicalsuccessionFood chains, food webs and ecological pyramids.Introduction,types,characteristicfeatures		• Lecture • Group Discussion	**CO-3**		
19.		Continue..		• Lecture • Group Discussion	**CO-3**		

20.		Structureandfunction ofthefollowingecosyst em: a)Forest ecosystem b) Grassland ecosystem c) Desert ecosystemd) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)		• Lecture • Group Discussion	**CO-3**		
21.		Continue..		• Lecture • Group Discussion	**CO-3**		
22.		Revision of Unit 3, Discussion on University questions		Discussion	**CO-3**		
Unit –4							
23.	**Biodiversity And Its Conservation**	Introduction – Definition: genetic, species and ecosystem diversity.		• Lecture • Group Discussion	**CO-4**		
24.		Biogeographicallycl assificationofIndia. Valueofbiodiversity: Consumptiveuse,pr oductiveuse,social,e thical,andaesthetic and option values.		• Lecture • Group Discussion	**CO-4**		
25.		Continue..		• Lecture Group Discussion	**CO-4**		
26.		Biodiversityatglobal ,Nationalandlocalle vels, Indiaasamega-diversitynation		• Lecture • Group Discussion	**CO-4**		
27.		Continue..		•			
28.		Hot-sportsofbiodiversity		• Lecture • Group Discussion	**CO-4**		
29.		Threatstobiodiversi ty:Habitatloss,poac hingofwildlife,man-wildlife.conflicts. Endangeredandend emicspeciesofIndia		• Lecture • Group Discussion	**CO-4**		
30.		Continue..		• Lecture • Group Discussion	**CO-4**		

31.		Conservationofbiodiversity:In-situandEx-situconservationofbiodiversity.		• Lecture • Group Discussion	**CO-4**		
32.		Continue..		• Lecture • Group Discussion	**CO-4**		
33.		Revision of Unit 4, Discussion on University questions		• Discussion	**CO-4**		
Unit –5							
34.	**Environmental Pollution**	Definition: Causes, effects and control measures of: - Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution Thermal pollution, nuclear pollution.		• Lecture • Group Discussion	**CO-5**		
35.		Continue..		• Lecture • Group Discussion	**CO-5**		
36.		SolidwasteManagement:Causes,effectsandcontrolmeasuresofurbanandindustrialwastes		• Lecture • Group Discussion	**CO-5**		
37.		Continue..		• Lecture • Group Discussion	**CO-5**		
38.		Roleofanindividualinpreventionofpollution case studies.		• Lecture • Group Discussion	**CO-5**		
39.		DisasterManagement:Floods,earthquake,cycloneandlandslides		• Lecture • Group Discussion	**CO-5**		
40.		Continue..		• Lecture • Group Discussion	**CO-5**		
41.		Revision of Unit 4, Discussion on University questions		• Discussion			
Unit –6							
42.	**Social Issues And The Environment**	From unsustainable to sustainable		• Lecture • Group Discussion	**CO-6**		

		development urbanproblemsrelatedtoenergy.					
43.		Water consecration, rainwaterharvesting,watershedmanagementResettlementandrehabilitationofpeople;itsproblemsandconcerns.		• Lecture • Group Discussion	**CO-6**		
44.		Continue..		• Lecture • Group Discussion	**CO-6**		
45.		CaseStudies Environmental Ethics: Issues and possible solutions.Climatechange,globalwarming,acidrain,ozonelayerdepletion,nuclearaccidentsandHolocaust:		• Lecture • Group Discussion	**CO-6**		
46.		Case-studieswastelandreclamation.Consumerismandwasteproductsenvironmentprotectionact.Air(PreventionandControlofPollution)ActWater(PreventionandControlofPollution)ActWildlifeProtectionActForestConservationActIssuesinvolvedinenforcementofenvironmentallegislationPublicawareness		• Lecture Group Discussion	**CO-6**		
47.		Continue..		• Lecture Group Discussion	**CO-6**		
48.		Revision of Unit 4, Discussion on University questions		Discussion	**CO-6**		

Unit-7							
49.	**Human Population And The Environment**	Population growth: variation among nations.Populationexplosion:FamilyWelfareProgrammed.			**CO-7**		
50.		Continue..			**CO-7**		
51.		EnvironmentandhumanhealthHumanRightsValueEducationWomenandChild Welfare			**CO-7**		
52.		Continue..			**CO-7**		
53.		RoleofInformationTechnologyinEnvironmentandhumanhealthCaseStudies			**CO-7**		
54.		Revision of Unit 4, Discussion on University questions		Discussion	**CO-7**		

Text Books:

1. Environmental Studies -Benny Joseph- Tata McgrawHill-200S
2. Environmental Studies- Dr. D.L. Manjunath, Pearson Education-2006.
3. Environmental studies - R, Rajagopalan -Oxford Publication • 200S

Reference Books:

1. Principles of Environmental Science and Engineering -P. Venugoplan Rao, Prentice Hall of India.

2.Environmental Science and Engineering - Meenakshi, Prentice Hall of India

3.Environment and Ecology-Smriti Srivastava,