



**DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION ENGINEERING**  
**ACADEMIC LESSON PLAN FOR WINTER SEMESTER 2022 - 2023**

**JHARSUGUDA ENGINEERING SCHOOL, JHARSUGUDA**

Name of the Faculty: RASHMITA BADHAI	Academic Year: 2022-23
Course No.: TH-5	Course Name: ENVIRONMENTAL STUDIES
Program: Diploma	Branch: ELECTRONICS & TELECOMMUNICATION
Year/Sem: 2 <sup>nd</sup> / 3 <sup>rd</sup>	Section: A
Total Periods : 60 P/ Sem	End Semester Exam : 80marks
Internal Assessment : 20 Marks	TOTAL MARKS : 100 Marks

Sl. No.	Period	Time (min)	Unit/ Chapter	Topic to be covered	Teaching method
1.	1.	55	1	Objective of nature of environmental studies, concept	Black board
2.	2.	55	1	The Multidisciplinary nature of environmental studies	Black board
3.	3.	55	1	Definition, scope and importance, Need for public awareness	Black board
4.	4.	55	2	Natural Resources Renewable and non renewable resources	Black board
5.	5.	55	2	Natural resources and associated	Black board
6.	6.	55	2	Problems Forest resources: Use and over-exploitation, deforestation, case studies	Black board
7.	7.	55	2	Timber extraction mining, dams and their effects on forests and tribal people.	Black board
8.	8.	55	2	Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems	Black board
9.	9.	55	2	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.	Black board
10	10.	55	2	Food Resources: World food problems ,changes caused by agriculture	Black board
11	11.	55	2	Overgrazing, effects of modern agriculture, fertilizers-pesticides problems, water logging, salinity	Black board
12	12.	55	2	Energy Resources: Growing energy need, renewable and non-renewable energy sources,	Audio visual smart class
13	13.	55	2	use of alternate energy sources ,case studies	Black board
14	14.	55	2	Land Resources: Land as a resource ,land degradation ,man induces landslides, soil erosion, and desertification.	Black board
15	15.	55	2	Role of individual in conservation of natural	Black board

				resources, Equitable use of resources for sustainable lifestyles.	
16	16.	55	3	Concept of an eco system ,Structure and function of an ecosystem	Black board
17	17.	55	3	Producers, consumers, decomposers, Energy flow in the ecosystems,	Audio visual smart class
18	18.	55	3	Ecological succession	Black board
19	19.	55	3	Food chains, food web sand	Black board
20	20.	55	3	ecological pyramids, Introduction, types, characteristic features	Black board
21	21.	55	3	structure and function of the following ecosystem	Black board
22	22.	55	3	Forest ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).	Black board
23	23.	55	4	Biodiversity and it's Conservation ,Introduction-	Black board
24	24.	55	4	Definition: genetics, species and ecosystem diversity.	Black board
25	25.	55	4	Biogeographically classification of India	Black board
26	26.	55	4	Value of biodiversity: consumptive use, productive use	Black board
27	27.	55	4	Social ethical, aesthetic and opt in values	Black board
28	28.	55	4	Biodiversity at global, national and local level	Black board
29	29.	55	4	Threats to biodiversity: Habitats loss, poaching of wild life	Black board
30	30.	55	4	man wildlife conflicts	Black board
31	31.	55	5	Environmental Pollution : Definition Causes, effects and control measures of: Air pollution.	Audio visual smart class
32	32.	55	5	Definition Causes, effects and control measures of Water pollution.	Audio visual smart class
33	33.	55	5	Definition Causes, effects and control measures of: Soil pollution	Audio visual smart class
34	34.	55	5	Definition Causes, effects and control measures of: Marine pollution	Black board
35	35.	55	5	Definition Causes, effects and control measures of: Noise pollution.	Black board
36	36.	55	5	Definition Causes, effects and control measures of: Thermal pollution	Black board
37	37.	55	5	Nuclear hazards.	Black board
38	38.	55	5	Solid waste Management: Causes, effects	Black board
39	39.	55	5	control measures of urban and industrial wastes	Black board
40	40.	55	5	Role of an individual in prevention of pollution.	Black board
41	41.	55	5	Disaster management: Floods, earth quake	Black board
42	42.	55	5	Disaster management: cyclone and landslides	Audio visual smart class
43	43.	55	6	Social issues and the Environment :From unsustainable to sustainable development,	Black board
44	44.	55	6	Urban problems related to energy	Black board
45	45.	55	6	Water conservation, rain water harvesting,	Black board
46	46.	55	6	water shed management.	Black board
47	47.	55	6	Resettlement and rehabilitation of people; its problems and concern	Black board
48	48.	55	6	Environmental ethics: issue and possible solutions	Black board
49	49.	55	6	Climate change, global warming, acid rain	Black board

50	50.	55	6	ozone layer depletion	Black board
51	51.	55	6	nuclear accidents and holocaust, case studies, Air (prevention and control of pollution) Act	Black board
52	52.	55	6	Water (prevention and control of pollution) Act, Public awareness	Black board
53	53.	55	7	Human population and the environment.	Black board
54	54.	55	7	Population growth and variation among nations	Black board
55	55.	55	7	Population explosion-family welfare program,	Black board
56	56.	55	7	Environment and human health	Black board
57	57.	55	7	Human rights,	Black board
58	58.	55	7	Value education	Black board
59	59.	55	7	Role of information technology in environment	Black board
60	60.	55	7	Role of information technology in human health.	Black board