## KIIT POLYTECHNIC

Department of Mechanical Engineering

## LESSON PLAN

**Session** :: Winter -2022

Course Type :: Theory

**Semester/Branch** :: 3<sup>rd</sup> Semester, Mechanical Engineering

Subject (with code) :: Environmental Studies (Th.5)

Contact hours/week :: 4

Name of Faculty :: Namita Behera

			T	
SL. No.	CLAS S ID	COURSE CONTENT	Mode of Delivery	EXHIBIT/ REFERENCE
			DELIVERI	
1	1	Definition, scope and importance, Need	Lecture	1.Study Material
		for public awareness	(Explanation)	2. Environmental
				studies by D.D.Mishra
2	2	Forest resources: Use and over-	Lecture	1.Study Material
		exploitation, deforestation, case	(Explanation)	2. Environmental
		studies, Timber extraction		studies by D.D.Mishra
3	3	Mining resources	Lecture	1.Study Material
			(Explanation)	2. Environmental
				studies by D.D.Mishra
4	4	Dams and their effects on forests and	Lecture	1.Study Material
		tribal people	(Explanation)	2. Environmental
5	5	Water resources: Use and over-	Lecture	studies by D.D.Mishra
		utilization of surface and ground water,	(Explanation)	-
		floods.	,	
6	6	Drought	Lecture	
			(Explanation)	
7	7	Mineral Resources: Use and	Lecture	
		exploitation, environmental effects of	(Explanation)	
		extracting and using mineral resource	, ,	
8	8	Food Resources: World food problems,	Lecture	https://youtu.be/1m1JA
		changes caused by agriculture and over	(Explanation)	AjFbeQ
		grazing	,	-
9	9	Effects of modern agriculture, fertilizer,	Lecture	1.Study Material
		pesticides problems, water logging,	(Explanation)	2. Environmental
		salinity	, ,	studies by D.D.Mishra
10	10	Energy Resources: Growing energy	Lecture	.Study Material
		need, renewable and non-renewable	(Explanation)	2. Environmental
		energy sources, use of alternate energy		studies by D.D.
				Mishra
11	11	Difference between renewable and non-	Lecture	1.Study Material
		renewable energy source	(Explanation)	2. Environmental
				studies by D.D. Mishra
		salinity  Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case study.  Difference between renewable and non-	Lecture (Explanation)  Lecture	studies by D.D.Mishra .Study Material 2. Environmental studies by D.D. Mishra 1.Study Material 2. Environmental

12	12	Land Resources: Land as a resource,	Lecture	1.Study Material
		land degradation.	(Explanation)	2. Environmental
		-		studies by D.D.
13	13	Soil erosion and desertification	Lecture	1.Study Material
			(Explanation)	2. Environmental
				studies by D.D.
14	14	Revision/ Summarize		
15	15	Assignment Evaluation & Class Test		
16	16	Concept of an ecosystem. Structure and	Student	
		function of an ecosystem. Producers,	Presentation	
17	1.7	consumers, decomposer	T .	
17	17	Energy flow in Ecosystems, Ecological	Lecture	https://youtu.be/E32vlR
		succession Food chains, food webs.	(Explanation)	anQog
18	18	Food webs and ecological pyramids	Lecture	1.Study Material
			(Explanation)	•
19	19	Introduction, types, characteristic	Lecture	
		features, structure and function of the	(Explanation)	2. Environmental
		Forest ecosystem		studies by D.D. Mishra
20	20	Structure and function of Aquatic eco	Lecture	https://youtu.be/6arGb8
		systems-ponds, streams, lakes, Oceans,	(Explanation)	<u>uAb4s</u>
		Estuaries.	_	
21	21	Introduction-Definition: genetics,	Lecture	1.Study Material
- 22	22	species and ecosystem diversity	(Explanation)	2. Environmental
22	22	Biogeographically classification of		studies by D.D. Mishra
22	22	India, Biodiversity at global.	(Explanation)	
23	23	Threats to biodiversity: Habitats loss	Lecture	https://youtu.be/vINK9
			(Explanation)	<u>ujrRwM</u>
24	24	Revision/ Summarize		
25	25	Assignment evaluation& class test		
26	26	Air pollution- Sources, Effects and	Lecture	https://youtu.be/e6rglsL
		control	(Explanation	y1Ys
27	27	Water pollution- Sources, Effects and	Lecture	<del>/</del>
		control	(Explanation)	
			PPT	
			Presentation	1.Study Material
28	28	Soil pollution- Sources, Effects and	Lecture	
2.0	• •	control	(Explanation)	2.5
29	29	Marine pollution- Sources, Effects and	Lecture	2. Environmental
		control	(Explanation)	studies by D.D. Mishra
			PPT	
20	30	Noise pollution Courses Effects and	Presentation	
30	30	Noise pollution- Sources, Effects and control	Lecture (Explanation)	
31	31	Thermal pollution- Sources, Effects and	Lecture	
J 1	31	control	(Explanation	
32	32	Nuclear hazards- Sources, Effects and	Lecture	1.Study Material
	32	control	(Explanation)	2. Environmental
			(Zirpimimion)	studies by D.D, Mishra
33	33	Revision/ Summarize		, ,
34	34	Assignment evaluation &class test		

35	35	Unsustainable to sustainable	Student	1.Study Material
		development	Presentation	2.Environmental
				Studies by D.D. Mishra
36	36	Urban problems related to energy	Hybrid	1.Study Material
37	37	Water conservation	Hybrid	2.Environmental
				Studies by D.D. Mishra
				,
38	38	Rain water harvesting, water shed	Lecture	https://youtu.be/Z6-m-
		management	(Explanation)	3Md1ug
			,	Sividiug
39	39	Resettlement and rehabilitation of	Lecture	1.Study Material
37	37	people; its problems and concern	(Explanation)	2. Environmental
40	40	Climate change, global warming, acid	Lecture	studies
40	40			by D.D.Mishra
41	41	rain, ozone layer depletion,	(Explanation)	•
41	41	Nuclear accidents and holocaust, case	Lecture	1. Study Material
		studies	(Explanation)	2. Environmental
40	40		T .	studies by D.D. Mishra
42	42	Air and water (prevention and control	Lecture	1. Study Material
		of pollution) Act	(Explanation)	2. Environmental
	4.0	7.11	-	studies by D.D. Mishra
43	43	Public awareness	Lecture	1. Study Material
			(Explanation)	2. Environmental
				studies by D.D. Mishra
44	44	Population growth and variation among	Hybrid	1.Study Material
		nations, Population explosion- family		
		welfare program		2. Environmental
45	45	Role of information technology in	Hybrid	studies by D.D. Mishra
		environment and human health and		
		human right and Role of information		
		technology		
46	46	Assignment Evaluation & Class Test		
47	47	Revision		
48	48	Revision		

Signature of Concern Teacher