

PANIPAT INSTITUTE OF ENGINEERING & TECHNOLOGY

Department of Mechanical Engineering

LESSON PLAN

Subject Name: - Environmental sciences

Subject Code: - MC-901A

Year: - 2021-22

Semester:-3rd sem

Lecture No	Unit No	Topic	References
L 1	Unit-1	Multidisciplinary nature of environmental studies	Dhanpat Rai and Co.
L 2		Definition, scope and importance	Dhanpat Rai and Co.
L 3		Need for public awareness	Dhanpat Rai and Co.
L 4		Renewable and Non renewable resources	Dhanpat Rai and Co.
L 5		forest resources	Dhanpat Rai and Co.
L6		Dams and their effects	Dhanpat Rai and Co.
L7		Water resources	Dhanpat Rai and Co.
L8		Mineral resources Effects of mining	Dhanpat Rai and Co.
L 9		Food resources Effects of modern agriculture	Dhanpat Rai and Co.

		Case studies	
L10		Energy resources	Dhanpat Rai and Co.
L11		Renewable Energy Resources	Dhanpat Rai and Co.
L12		Non-Renewable Energy Resources	Dhanpat Rai and Co.
L13		land resources desertification	Dhanpat Rai and Co.
L 14		Role of individual in conservation of natural resources	Dhanpat Rai and Co.
L15		Equitable use of Resources for Sustainable Lifestyle	Dhanpat Rai and Co.
L 16	Unit-2	Ecosystem Structure of an ecosystem	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L17		Function of an ecosystem	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L 18		Energy flow in an ecosystem Ecological pyramids	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L19		Ecological succession	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L20		Forest ecosystem, grassland	Dr.sushmita Baskar & Dr. R. Baskar (Environmental

		ecosystem	Sciences for under graduate courses)
L 21		Desert ecosystem, aquatic ecosystem	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L22	Unit -3	Biodiversity and its conservation Genetic , species and ecosystem diversity	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L 23		Biogeographical classification of india	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L24		Revision class	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L25		Value of biodiversity	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L26		Biodiversity at different levels	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L27		Hotspots of biodiversity Threats to biodiversity	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L 28		Conservation of biodiversity	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under

			graduate courses)
L 29		Air Pollution Water Pollution Soil Pollution	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L30		Marine Pollution Solid Waste Management Disaster Management	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L31	Unit-4	From unsustainable to sustainable development	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L32		Urban problems related to environment Water conservation, rain water harvesting, watershed management	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L 33		Resettlement and rehabilitation of people: Its problems and concerns, Case Studies: Environmental ethics-issues and possible solutions. Climate change, global warming, acid rain, ozone layer depletion,	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L34		Nuclear accidents and holocaust. Case studies: Wasteland Reclamation, Consumerism and waste products	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L35		Environment Protection Act, Air (Prevention and	Dr.sushmita Baskar & Dr.

		Control of Pollution) Act, Water (Prevention and Control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act,	R. Baskar (Environmental Sciences for under graduate courses)
L36		Issues involved in enforcement of environmental legislation, Public Awareness, Human population and the Environment, Population growth, variation among nations, Population explosion-Family Welfare Programme, Environment and human health. Human rights, Value Education, HIV/AIDS, Women and Child Welfare.	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)
L37		Role of Information Technology in Environment and Human Health, Case Studies, Drugs and their effects; Useful and harmful drugs, Use and abuse of drugs, Stimulant and depressan drugs, Concept of drug de-addiction, Legal position on drugs and laws related to drugs.	Dr.sushmita Baskar & Dr. R. Baskar (Environmental Sciences for under graduate courses)

- **Text Books:** Environmental Studies- Deswal and Deswal. Dhanpat Rai and Co.
- **Reference Books:** Environmental Science and Engineering Anandan, P. and Kumaravelan, R. 2009. Scitech Publications (India) Pvt. Ltd., India.
- Environmental Studies. Daniels Ranjit R. J. and Krishnaswamy. 2013. Wiley India.

- Environmental Science- Botkin and Keller. 2012. Wiley , India