

Lesson Plan/ Course Break – up
MC- 102-T- ENVIRONMENT SCIENCE

Name of the Faculty	Mr. Manik Goyal
Discipline	B.Tech in Civil Engineering
Semester	III (2 nd Year)
Subject	Environment Science
Lesson Plan Duration	15 Weeks (from September to December2021)
Work Load (Lecture / Practical) per week (in hrs.)	Lectures – 03

Week	Theory	
	Lecture Day	Topic (Including assignment / Test)
1 st	1	Multidisciplinary nature of Environmental studies: Definition, scope and importance,
	2	need for public awareness; Concept, Structure and function of an ecosystem: Producers, consumers and decomposers,
	3	Energy flow in the ecosystem ,Ecological succession ,Food chains, Food webs and ecological pyramids;
2 nd	4	Introduction, types, characteristics features, structure and function of Forest ecosystem, Grassland ecosystem ,Desert ecosystem, Aquatic ecosystem (Ponds, Stream, lakes, rivers, oceans, estuaries);
	5	Biodiversity: Introduction, Definition: genetic, species and ecosystem diversity, Bio geographical classification of India,
	6	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and option values; Biodiversity at global, national and local level, India as a mega diversity nation, Hot-spot of biodiversity,
3 rd	7	Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts,
	8	Endangered and endemic species of India, Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity
	9	Renewable and non-renewable resources, Natural resources and associated problems ,
4 th	10	Forest resources: Use and over-exploitation, deforestation, case studies
	11	Timber extraction, mining, dams and their effects on forests and tribal people;
	12	Water resources: Use and over utilization of surface and ground water, floods, droughts conflicts over water, dams benefits and problems;
5 th	13	Mineral resources: Use and exploitation, environmental effects of extracting and mineral resources;
	14	Food resources: World food problem, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer pesticide problems, water logging, salinity;
	15	Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies;
6 th	16	Land resources: Land as a resource, land degradation, main induced landslides, soil erosion and desertification,

	17	Role of an individual in conservation of natural resources,	
	18	Equitable use of resources for suitable lifestyle.	
7th	1st Minor Test		
8 th	19	Definition of Environment Pollution; Causes, effects and control measures of: Air Pollution,	
	20	Water Pollution, Soil pollution, Marine pollution,	
	21	Noise pollution, Thermal pollution, Nuclear hazards; Solid waste Management: Causes effects and control measures of urban and industrial wastes;	
9 th	22	Role of and individual in prevention of pollution,	
	23	Pollution case studies; Disaster management: floods, earthquake, cyclone and landslides	
	24	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust,	
10 th	25	Case studies; different laws related to environment: Environment Protection Act, Air (Prevention and Control of Pollution) Act,	
	26	Water (Prevention and Control of Pollution) Act, Wildlife Protection Act,	
	27	Forest Conservation Act.; Issues involved in enforcement of environmental legislation, Public awareness	
11 th	28	Social issues and the Environment: From unsustainable to Sustainable development,	
	29	Urban problems related to energy; Water conservation, rain water harvesting,	
	30	Watershed management; Resettlement and rehabilitation of people; its problem and concern, case studies;	
12 th	31	Environment ethics: Issues and possible solutions;	
	32	Wasteland reclamation; Consumerism and waste products;	
	33	Human Population growth, variation among nation,	
13 th	34	Population explosion- Family Welfare Programme,	
	35	Environment and human health , Human Rights, Value Education, HIV/AIDS,	
	36	Women and Child Welfare,	
14th	2nd Minor test		
15 th	37	Role of Information Technology in Environment and human health, Case Studies	
	38	Role of Information Technology in Environment and human health, Case Studies	
	39	Role of Information Technology in Environment and human health, Case Studies	