

Discipline: Elect/Cse/Mech/Civil	Semester: 1 st	Name Of The Teaching Faculty: Sunil Kumar Martha
Subject: Environmental Science	No. Of Days/Week Class Allotted: 4	No. Of Weeks:15 From – 18.09.2025 to 04.12.2025
Week	Class Day	Theory Topics
1	1	Ecosystem Structure of ecosystem
	2	Biotic and Abiotic components
	3	Food chain and food web
	4	Aquatic ecosystems (Lentic and Lotic)
2	1	Terrestrial ecosystems
	2	Carbon cycle, Nitrogen cycle
	3	Sulphur cycle, Phosphorus cycle
	4	Global warming: Causes, Effects, Process
3	1	Greenhouse effect
	2	Ozone depletion
	3	Air and Noise Pollution Definition of pollution and pollutant
	4	Natural and man-made sources of air pollution
4	1	Refrigerants and their impact on air pollution
	2	Internal combustion engines (I.C.) and their impact
	3	Boilers and air pollution
	4	Types of air pollutants
5	1	Particulate pollutants: Effects and control
	2	Control measures: Bag filters, Cyclone separators
	3	Electrostatic precipitators
	4	Gaseous pollution control: Absorbers
6	1	Catalytic converters
	2	Effects of air pollution from refrigerants and I.C.
	3	Noise pollution: Sources
	4	Measurement of noise pollution levels
7	1	Effects of noise pollution
	2	Noise pollution (Regulation and Control) Rules, 2000
	3	Water and Soil Pollution Sources of water pollution
	4	Types of water pollutants
8	1	Characteristics of water pollutants
	2	Water quality parameters: Turbidity, pH
	3	Total suspended solids and total solids
	4	Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD)
9	1	Definition and calculation of BOD and COD
	2	Wastewater treatment: Primary methods
	3	Primary methods: Sedimentation and froth flotation
	4	Secondary methods: Activated sludge treatment
10	1	Secondary methods: Trickling filter, Bioreactor
	2	Tertiary method: Membrane separation technology

	3	Tertiary method: Reverse osmosis (RO)
	4	Causes of soil pollution, Effects of soil pollution
11	1	Preventive measures for soil pollution
	2	Excessive use of fertilizers, pesticides, and insecticides
	3	Impact of irrigation on soil pollution
	4	E-Waste and its effects
		Renewable Sources Of Energy
12	1	Basics of solar energy
	2	Flat plate collector (Liquid & Air)
	3	Theory of flat plate collector
	4	Importance of coating and advanced collectors
	1	Solar pond, solar water heater, solar dryer
13	2	Solar stills
	3	Overview of biomass as an energy source
	4	Thermal characteristics of biomass as fuel
	1	Anaerobic digestion and biogas production mechanism
14	2	Wind energy: Current status and future prospects
	3	Environmental benefits and problems of wind energy
	4	Solid Waste Management Solid Waste Generation
15	1	Collection and Disposal of MSW
	2	Environmental Legislation
	3	Carbon Management
	4	ISO 14000 and Environmental

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 K. S. Chohan
 18/09/25