

LESSON PLAN

Name of the Faculty: Mrs. Anita Girdhar

Discipline: BA-JMC

Semester: First

Subject: Environmental Science-I

Lesson plan duration: 16 weeks

Week	Theory	
	Lecture day	Topic
1	1	Humans as hunter gatherers ,Mastery of Fire, Origin of Agriculture
	2	Emergence of city-states, Great ancient civilizations and the environment.
2	3	Indic Knowledge and Culture of sustainability
	4	Middle Ages and Renaissance; Industrial revolution and its impact on the environment
3	5	Population growth and natural resource exploitation; Global environmental change
	6	Anthropocentric and eco-centric perspectives (Major thinkers); The Club of Rome- Limits to Growth
4	7	UN Conference on Human Environment 1972
	8	World Commission on Environment and Development and the concept of sustainable development; Rio Summit and subsequent international efforts
5	9	Definition of resource; Classification of natural resources- biotic and abiotic, renewable and non-renewable.
	10	Major type of biotic resources- forests, grasslands, wetlands, wildlife and aquatic(fresh water and marine); Microbes as a resource; Status and challenges.
6	11	Types of water resources- fresh water and marine resources; Availability and use of water resources
	12	Environmental impact of over-exploitation, issues and challenges; Water scarcity and stress; Conflicts over water
7	13	Important minerals; Mineral exploitation; Environmental problems due to extraction of minerals and use
	14	Soil as a resource and its degradation
8	15	Sources of energy and their classification, renewable and non-renewable sources of energy; Conventional energy sources- coal, oil, natural gas, nuclear energy
	16	Non-conventional energy sources- solar, wind, tidal, hydro, wave, ocean thermal
9	17	Non-conventional energy sources- geothermal, biomass, hydrogen and fuel cells; Implications of energy use on the environment
	18	Sustainable Development Goals (SDGs)- targets and indicators, challenges and strategies for SDGs
10	19	Concepts of micro-, meso-, synoptic and planetary scales; Temporal and spatial extents of local, regional, and global phenomena

	20	Impact of sectoral processes on Environment
11	21	Types of Pollution- air, noise, water, soil,
	22	Types of Pollution- thermal, radioactive; municipal solid waste, hazardous waste; transboundary air pollution; acid rain; smog
12	23	Land degradation, deforestation, desertification, urbanization
	24	Ozone layer depletion; Climate change. Disasters – Natural and Man-made
13	25	Biodiversity as a natural resource; Levels and types
	26	Biodiversity in India and the world; Biodiversity hotspots
14	27	Major ecosystem types in India and their basic characteristics- forests, wetlands, grasslands, agriculture, coastal and marine, Ecosystem services- classification and significance
	28	Threats to biodiversity and ecosystems- Land use and land cover change; Commercial exploitation of species; Invasive species; Fire, disasters and climate change
15	29	In-situ and ex-situ conservation; Major protected areas; Biosphere reserves; Ecologically Sensitive Areas
	30	Coastal Regulation Zone; the role of traditional knowledge for biodiversity conservation, community-based conservation; Gender and conservation
16	31	Convention on Biological Diversity (CBD), Cartagena Protocol on Biosafety; Nagoya Protocol on Access and Benefit-sharing
	32	Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), Ramsar Convention on Wetlands of International Importance; United Nations Convention to Combat Desertification (UNCCD)