

LESSON PLAN

DEPARTMENT OF MECHANICAL ENGINEERING, ITT, CHOUDWAR

SUBJECT- Environmental Studies

Periods: 4 per week

SEMESTER: 3TH

NAME OF FACULTY: TRIPATHY DEBASIS, LECTURER(MECH)

No. of weeks: 15

Week	Class Day	Theory / Practical Topics
1st	1 st	The Multidisciplinary nature of environmental studies
	2 nd	Definition, scope and importance, Need for public awareness.
2 nd	1 st	Natural Resources
	2 nd	Natural resources and associated problems.
	3 rd	Role of individual in conservation of natural resources.
	4 th	Equitable use of resources for sustainable lifestyles.
3 rd	1 st	Systems Concept of an ecosystem.
	2 nd	Renewable and non renewable resources
	3 rd	Natural resources and associated problems.
	4 th	Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people.
4 th	1 st	Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems.
	2 nd	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.
	3 rd	Food Resources: World food problems ,changes caused by agriculture and overgrazing, effect of modern agriculture, fertilizers- pesticides problems, water logging, salinity,.
	4 th	Energy Resources: Growing energy need, renewable and non- renewable energy sources, use of alternate energy sources, case studies.
5 th	1 st	Land Resources: Land as a resource ,land degradation ,man induces landslides, soil erosion, and desertification.
	2 nd	Role of individual in conservation of natural resources.
	3 rd	Equitable use of resources for sustainable lifestyles.
	4 th	Revision
6 th	1 st	Systems Concept of an ecosystem
	2 nd	Structure and function of an ecosystem.
	3 rd	Producers, consumers, decomposers.
	4 th	Energy flow in the ecosystems.
7 th	1 st	Ecological succession.
	2 nd	Food chains, food web sand ecological pyramids.
	3 rd	Introduction, types, characteristic features, structure and function of the following ecosystem:
8 th	4 th	Forest ecosystem: Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).
	1 st	Biodiversity and it's Conservation
	2 nd	Introduction-Definition: genetics, species and ecosystem diversity.
	3 rd	Biogeographically classification of India.

	4 th	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and opt in values.
9 th	1 st	Biodiversity at global, national and local level.
	2 nd	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and opt in values.
	3 rd	Biodiversity at global, national and local level.
	4 th	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.
10 th	1 st	Environmental Pollution.
	2 nd	Air pollution.
	3 rd	Water pollution.
	4 th	Soil pollution
11 th	1 st	Marine pollution
	2 nd	Noise pollution.
	3 rd	Thermal pollution
	4 th	Nuclear hazards.
12 th	1 st	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
	2 nd	Role of an individual in prevention of pollution.
	3 rd	Disaster management: Floods, earth quake, cyclone and landslides.
	4 th	Social issues and the Environment
h	1 st	Urban problems related to energy.
	2 nd	Water conservation, rain water harvesting, water shed management.
	3 rd	Resettlement and rehabilitation of people; its problems and concern.
	4 th	Environmental ethics: issue and possible solutions.
14 th	1 st	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.
	2 nd	Air (prevention and control of pollution) Act.
	3 rd	Water (prevention and control of pollution) Act. Public awareness.
	4 th	Human population and the environment Population growth and variation among nations. Population explosion-family welfare program.
15 th	1 st	Environment and human health. Human rights.
	2 nd	Value education Role of information technology in environment and human health.
	3 rd	Revision
	4 th	Revision

H. Debar

Sign. of Faculty