

Badriprasad Institute of Technology, Sambalpur

Lesson plan for Theory -5, Environmental Studies

Semester & Branch : 3rd Sem Civil Engineering

Name of the faculty : Mrs. Swagatika Panda

Total Periods-60

No of periods /week-4

WEEK	CLASS DAY	THEORY TOPICS
		The Multidisciplinary nature of environmental studies
1ST	1st	Definition, scope and importance, Need for public awareness
	2nd	Continue of 1st class
	3rd	Natural Resources Renewable and non renewable resources:
		a) Natural resources and associated problems.
4th	Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people.	
2ND	1st	Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems.
	2nd	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.
	3rd	Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity, .
	4th	Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies.
3RD	1st	Land Resources: Land as a resource, land degradation, man induce landslides, soil erosion, and desertification.
	2nd	b) Role of individual in conservation of natural resources.
	3rd	c) Equitable use of resources for sustainable life styles.
	4th	Continue of 3rd class
4TH	1st	Systems
		Concept of an eco system.
	2nd	Structure and function of an eco system.
	3rd	Producers, consumers, decomposers.
4th	Energy flow in the eco systems.	
5TH	1st	Ecological succession.
	2nd	Food chains, food webs and ecological pyramids.
	3rd	Introduction, types, characteristic features, structure and function of the following eco system:
	4th	Forest ecosystem:
6TH	1st	Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).
	2nd	Continue of 1st class
	3rd	Biodiversity and it's Conservation
		Introduction-Definition: genetics, species and ecosystem diversity.
4th	Biogeographically classification of India.	

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7TH	1st	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optin values.
	2nd	Biodiversity at global, national and local level.
	3rd	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.
	4th	Continue of 2nd Class
8th	1st	Environmental Pollution. Definition Causes, effects and control measures of:
	2nd	a) Air pollution.
	3rd	b) Water pollution.
	4th	c) Soil pollution
9th	1st	d) Marine pollution
	2nd	e) Noise pollution.
	3rd	f) Thermal pollution
	4th	g) Nuclear hazards.
10th	1st	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
	2nd	Role of an individual in prevention of pollution.
	3rd	Disaster management: Floods, earth quake, cyclone and landslides
	4th	Continue of 2nd Class
11th	1st	Social issues and the Environment Form unsustainable to sustainable development.
	2nd	Urban problems related to energy.
	3rd	Water conservation, rain water harvesting, water shed management.
	4th	Resettlement and rehabilitation of people; its problems and concern.
12th	1st	Environmental ethics: issue and possible solutions.
	2nd	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.
	3rd	Air (prevention and control of pollution) Act.
	4th	Water (prevention and control of pollution) Act.
13th	1st	Public awareness.
	2nd	Continue of 4th Class
	3rd	Human population and the environment Population growth and variation among nations.

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	4th	Population explosion- family welfare program.
14th	1st	Environment and human health.
	2nd	Human rights.
	3rd	Value education
	4th	Continue of 3rd class
15th	1st	Role of information technology in environment and human health.
	2nd	Continue of 4th Class
	3rd	Revision Class
	4th	Revision Class

Sign of Faculty

Sign of HOD