

LESSON PLAN

SUB:-ENVIRONMENTAL STUDIES.

BRANCH:- ELECTRICAL ENGG.

SEMESTER: 3rd

SESSION:2022-2023

NAME OF FACULTY: - SUSHANTA KUMAR NAYAK



**GOVERNMENT POLYTECHNIC,
BHADRAK**

Hod Electrical

HOD (ELECT.)
G.P. BHADRAK

Academic Co-ordinator

Principal
Govt. Polytechnic Bhadrak
Bhadrak

Discipline: ELECTRICAL ENGG.	Semester: 3rd	Name of the Teaching Faculty : SUSHANTA KUMAR NAYAK
Subject: ENVIRONMENTAL STUDIES	No. of Days/per week class allotted:4	Semester from date: 15.09.2022 To Date: 21.01.2023 No. of Weeks:15
Week	Class Day	Theory
1 st	1 st	The Multidisciplinary nature of environmental studies Definition .
	2 nd	The Multidisciplinary nature of environmental studies Scope.
	3 rd	The Multidisciplinary nature of environmental studies and importance
	4 th	Need for public awareness
2 nd	1 st	Natural Resources: Renewable and non renewable resources.Natural resources and associated problems.
	2 nd	Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining, dams and their effects on forests and tribal people.
	3 rd	Water resources: Use and over-utilization of surface and ground water, floods, drought,
	4 th	conflicts over water, dam's benefits and problems.
3 rd	1 st	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineral resources.
	2 nd	Food Resources: World food problems, changes caused by agriculture and over grazing
	3 rd	effects 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
4 th	1 st	LandResources: Landasaresource, landdegradation, man induces landslides, soil erosion, and desertification.
	2 nd	Role of individual in conservation of natural resources. Equitable use of resources for sustainable life styles.
	3 rd	Concept of an eco system. Structure and function of an eco system.
	4 th	Producers, consumers, decomposers.
5 th	1 st	Energy flow in the eco systems.
	2 nd	Ecological succession.
	3 rd	Food chains, food webs and ecological pyramids.

	4 th	. Introduction, types, characteristic features, structure and function of the following <i>eco system</i> . Forest ecosystem.
6 th	1 st	Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).
	2 nd	Biodiversity and it's Conservation
	3 rd	
	4 th	
7 th	4 th	Introduction-Definition: genetics, species and ecosystem diversity.
	1 st	Biogeographically classification of India.
	2 nd	Value of biodiversity: consumptive use,
	3 rd	productive use, social ethical, aesthetic and optin values
8 th	4 th	Biodiversity at global, national and local level
	1 st	Threats to biodiversity: Habitats loss,
	2 nd	poaching of wild life, man wildlife conflicts.
	3 rd	Environmental Pollution
9 th	4 th	Definition Causes, effects and control measures of Air pollution.
	1 st	Definition Causes, effects and control measures of Water pollution
	2 nd	Definition Causes, effects and control measures of Soil pollution
	3 rd	Definition Causes, effects and control measures of Marine pollution
10 th	4 th	Definition Causes, effects and control measures of Noise pollution
	1 st	Definition Causes, effects and control measures of Thermal pollution
	2 nd	Definition Causes, effects and control measures of Nuclear hazards
	3 rd	Solid waste Management: Causes, effects and control measures of urban and industrial wastes
11 th	4 th	Role of an individual in prevention of pollution.
	1 st	Disaster management: Floods
	2 nd	Disaster management, earth quake, cyclone and landslides.
	3 rd	Social issues and the Environment:
12 th	4 th	Form unsustainable to sustainable development
	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
13 th	4 th	Environmental ethics: issue and possible solutions
	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.
4 th	Public awareness
1 st	Human Population and the environment
2 nd	Population growth and variation among nations
3 rd	Population explosion
4 th	Family welfare program
1 st	Environment and human health
2 nd	Human rights
3 rd	Value education
4 th	Role of information technology in environment and human health



 09-2022
 SIGNATURE OF THE FACULTY