

Government Polytechnic Education society,Manesar

LESSON PLAN: ENVIRONMENTAL STUDIES

Name of the Faculty: Visiting Faculty

Discipline: Electrical Engg.

Semester: 2nd Semester

Subject: ENVIRONMENTAL STUDIES

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load (Lecture) per week (in hours): Lectures-03

Week	Lecture Day	Syllabus
1 st	1 st	Basics of ecology, eco system- concept
	2 nd	Structure and importance of ecosystem, Carbon, Nitrogen, Sulphur cycle
	3 rd	Sustainable development Assignment 1 topic: Ecology system
2 nd	4 th	Conservation of land reforms, preservation of species
	5 th	Prevention of advancement of Desert sand lowering of water table, rain water harvesting
	6 th	Test
3 rd	7 th	Acid Rain, maintenance of ground water, Water supply engineering
	8 th	Deforestation – its effects and control measures
	9 th	Pollution: Sources of pollution - natural and manmade Assignment 2 topic: preservation of species
4 th	10 th	Classification of pollutants
	11 th	Causes, effects and control measures of pollution (air, water, noise, soil, radioactive and nuclear)
	12 th	Test
5 th	13 th	Prevention of Pollution: Introduction to Cleaner Production Technologies
	14 th	Physical treatment of pollutants
	15 th	Chemical treatment of pollutants Assignment 3 topic: Pollution control
6 th	16 th	Biological treatment of pollutants
	17 th	Photo catalytic degradation of pollutants
	18 th	Test
7 th	19 th	Waste Minimization Techniques
	20 th	Chemical degradation of waste

	21 st	Concept of Zero Discharge Assignment 4 topic: Waste minimization techniques
8 th	22 nd	Solid waste management
	23 rd	Classification of refuse material
	24 th	Test
9 th	25 th	Classification of sources
	26 th	Classification of effects and control measures
	27 th	Introduction to E-waste Management. Assignment 5 topic: Solid waste management
10 th	28 th	Environmental Legislation
	29 th	Water (prevention and control of pollution) Act 1974
	30 th	Test
11 th	31 st	Air (Prevention and Control of Pollution) Act 1981
	32 nd	Environmental Protection Act 1986
	33 rd	Role and Function of State Pollution Control Board
12 th	34 th	Environmental Impact Assessment (EIA)
	35 th	Introduction to Energy Conservation Act 2001
	36 th	Test
13 th	37 th	Energy Conservation (Amendment) Act 2010 & its importance
	38 th	Energy Conservation: Introduction to Energy Management
	39 th	Work cell control. Assignment 6 topic: Different Acts of Water, Air, etc.
14 th	40 th	Energy Conservation
	41 st	Energy efficiency & its need
	42 nd	Test
15 th	43 rd	Role of Non-conventional Energy Resources (Solar Energy, Wind Energy, Bio Energy, Hydro Energy) in environmental protection
	44 th	Impact of Energy Usage on Environment – Global Warming, Green House Effect, Depletion of Ozone Layer Assignment 7 topic: Energy conservation
	45 th	Eco-friendly Material: Recycling of Material, Concept of Green Buildings