

## LESSON PLAN: ENVIRONMENTAL STUDIES

**Name of the Faculty:** NEERAJ SHARMA

**Discipline:** Applied Sciences(All Branches)

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

	18 <sup>th</sup>	Test
7 <sup>th</sup>	19 <sup>th</sup>	Waste Minimization Techniques
	20 <sup>th</sup>	Chemical degradation of waste
	21 <sup>st</sup>	Concept of Zero Discharge <b>Unit 4 topic: Waste minimization techniques</b>
8 <sup>th</sup>	22 <sup>nd</sup>	Solid waste management
	23 <sup>rd</sup>	Classification of refuse material
	24 <sup>th</sup>	Test
9 <sup>th</sup>	25 <sup>th</sup>	Classification of sources
	26 <sup>th</sup>	Classification of effects and control measures
	27 <sup>th</sup>	Introduction to E-waste Management. <b>Unit 5 topic: Solid waste management</b>
10 <sup>th</sup>	28 <sup>th</sup>	Environmental Legislation
	29 <sup>th</sup>	Water (prevention and control of pollution) Act 1974
	30 <sup>th</sup>	Test
11 <sup>th</sup>	31 <sup>st</sup>	Air (Prevention and Control of Pollution) Act 1981
	32 <sup>nd</sup>	Environmental Protection Act 1986
	33 <sup>rd</sup>	Role and Function of State Pollution Control Board
12 <sup>th</sup>	34 <sup>th</sup>	Environmental Impact Assessment (EIA)
	35 <sup>th</sup>	Introduction to Energy Conservation Act 2001
	36 <sup>th</sup>	Test
13 <sup>th</sup>	37 <sup>th</sup>	Energy Conservation (Amendment) Act 2010 & its importance
	38 <sup>th</sup>	Energy Conservation: Introduction to Energy Management
	39 <sup>th</sup>	Work cell control. <b>Unit 6 topic: Different Acts of Water, Air, etc.</b>
14 <sup>th</sup>	40 <sup>th</sup>	Energy Conservation
	41 <sup>st</sup>	Energy efficiency & its need
	42 <sup>nd</sup>	Test
15 <sup>th</sup>	43 <sup>rd</sup>	Role of Non-conventional Energy Resources (Solar Energy, Wind Energy, Bio Energy, Hydro Energy) in environmental protection
	44 <sup>th</sup>	Impact of Energy Usage on Environment – Global Warming, Green House Effect, Depletion of Ozone Layer <b>Unit 7 topic: Energy conservation</b>
	45 <sup>th</sup>	Eco-friendly Material: Recycling of Material, Concept of Green Buildings

