

## LESSON PLAN: ENVIRONMENTALSTUDIES

**Name of the Faculty:** Kapil Bhoria

**Discipline:** Computer Engineering

**Semester:** 2<sup>nd</sup> Semester

**Subject:** ENVIRONMENTALSTUDIES

**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>Assignment 1 topic:</b> Ecology system
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>Assignment 2 topic:</b> preservation of species
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>Assignment 3 topic:</b> Pollution control
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>Assignment 4 topic:</b> Waste minimization techniques
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>Assignment 5 topic:</b> Solid waste management
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>Assignment 6 topic:</b> Different Acts of Water, Air, etc.
14 <sup>th</sup>	40 <sup>th</sup>	Energy Conservation Energy efficiency & its need
	41 <sup>st</sup>	Role of Non-conventional Energy Resources (Solar Energy, Wind
	42 <sup>nd</sup>	Energy, Bio Energy, Hydro Energy) in environmental protection
15 <sup>th</sup>	43 <sup>rd</sup>	Impact of Energy Usage on Environment – Global Warming, Green House Effect, Depletion of Ozone Layer <b>Assignment 7 topic:</b>
	44 <sup>th</sup>	Energy conservation Eco-friendly Material: Recycling of Material, Concept of Green Buildings