



**Department of Applied Science & Humanities-II**

**LESSON PLAN**

**Session: Jan – May 2026**

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

**Name:** \_\_\_\_\_

**University Roll Number:** \_\_\_\_\_

**BUDDHA INSTITUTE OF TECHNOLOGY**

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<b>Subject: 1</b>	<b>Engineering Chemistry</b>
<b>Subject: 2</b>	<b>Engineering Mathematics-II</b>
<b>Subject: 3</b>	<b>Fundamentals of Electronics Engineering</b>
<b>Subject: 4</b>	<b>Programming for Problem Solving</b>
<b>Subject: 5</b>	<b>Environmental and Ecology</b>
<b>Lab:1</b>	<b>Engineering Chemistry Lab</b>
<b>Lab:2</b>	<b>Basic Electronics Engineering Lab</b>
<b>Lab:3</b>	<b>Programming for Problem Solving Lab</b>
<b>Lab:4</b>	<b>Engg. Graphics and Design Lab</b>



# BUDDHA INSTITUTE OF TECHNOLOGY

DEPARTMENT OF APPLIED SCIENCE & HUMANITIES-II

ACADEMIC YEAR 2025-26 (EVEN Semester)

## LESSON PLAN

Semester: II	Section: A	Course Code: : BAS204	Contact Hours /week: 3
Course name: Environment and Ecology			# of credits: 3
Teacher's name: Mr. RAHUL KUMAR SHUKLA			Designation: AP
Sessional Marks:30	End Semester Examination Marks:70		University Exam Hours: 3

Prerequisites if any:

NA

Content delivery methods:

By Face to face delivery, Presentation, Tutorial etc.

**COURSE SYLLABUS (as prescribed by University / Board)**

Module No	UNIT Contents	Hours	COs
1	<b>Environment:</b> Definition, Types of Environment, Components of environment, Segments of environment, Scope and importance, Need for Public Awareness. <b>Ecosystem:</b> Definition, Types of ecosystem, Structure of ecosystem, Food Chain, Food Web, Ecological pyramid. Balance Ecosystem. Effects of Human Activities such as Food, Shelter, Housing, Agriculture, Industry, Mining, Transportation, Economic and Social security on Environment, Environmental Impact Assessment, Sustainable Development.	9	1
2	<b>Natural Resources:</b> Introduction, Classification. <b>Water Resources;</b> Availability, sources and Quality Aspects, Water Borne and Water Induced Diseases, Fluoride and Arsenic Problems in Drinking Water. <b>Mineral Resources;</b> Material Cycles; Carbon, Nitrogen and Sulfur cycles. <b>Energy Resources;</b> Conventional and Non conventional Sources of Energy. <b>Forest Resources;</b> Availability, Depletion of Forests, Environment impact of forest depletion on society.	10	2
3	<b>Pollution and their Effects; Public Health Aspects of Environmental;</b> Water Pollution, Air Pollution, Soil Pollution, Noise Pollution, Solid wastemanagement.	3	3
4	<b>Current Environmental Issues of Importance;</b> Global Warming, Green House Effects, Climate Change, Acid Rain, Ozone Layer Formation and Depletion, Population Growth and Automobile pollution, Burning of paddy straw.	06	4
5	<b>Environmental Protection;</b> Environmental Protection Act 1986, Initiatives by Non Governmental Organizations (NGO's), <b>Human Population and the Environment:</b> Population growth, Environmental Education, Women Education.	11	5

**COURSE OUTCOMES:** At the end of the Course, the Student will be able to:

<b>CO1</b>	Gain in-depth knowledge on natural processes that sustain life, and govern economy.
<b>CO2</b>	Estimate and Predict the consequences of human actions on the web of life, global economy and quality of human life
<b>CO3</b>	Develop critical thinking for shaping strategies (scientific, social, economic and legal) for environmental protection and conservation of biodiversity, social equity and sustainable development.
<b>CO4</b>	Acquire values and attitudes towards understanding complex environmental economic social challenges, and participate actively in solving current environmental problems and preventing the future ones.
<b>CO5</b>	Adopt sustainability as a practice in life, society and industry.

**Mapping of CO v/s PO:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
<b>C01</b>	3	3	-	2	-	-	-	-	-	-	-	-
<b>C02</b>	3	3	-	2	-	-	-	-	-	-	-	-
<b>C03</b>	3	2	-	2	-	2	-	-	-	-	-	-
<b>C04</b>	2	2	-	2	-	2	-	-	-	-	-	-
<b>C05</b>	2	2	-	2	-	2	-	-	-	-	-	-
<b>Average</b>			-	2	-	-	-	-	-	-	-	-

	PS01	PS02	PS03
<b>C01</b>			
<b>C02</b>			
<b>C03</b>			
<b>C04</b>			
<b>C05</b>			
<b>Average</b>			

Correlation levels: 1-Slight (Low)    2-Moderate (Medium)    3-Substantial (High)

<b>Gap in the syllabus</b>	
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<b>Topics to be covered beyond syllabus</b>	
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## LESSON PLAN

Lecture	Module	Scheduled			Conducted			
		Topic	*R BT Le vel s	C O M a p p i n g	Date	Topic	Date	N o . O f S t u d e n t s
1	I	Definition of the Environment	L2	CO 1				
2		Types of Environment	L2					
3		Components of environment,	L2					
4		Segments of environment Segments of environment Scope and importance	L2					
5		Need for Public Awareness Definition, Types of ecosystem, Structure of ecosystem Food Chain, Food Web	L2					
6		Ecological pyramid. Balance Ecosystem.	L2					
7		Effects of Human Activities	L2					
8		Food, Shelter, Housing, Agriculture, Industry, Mining, Transportation, Economic and Social security on <b>Environment,</b>	L2					
9		Environmental Impact Assessment, Sustainable Development	L2					
10		Natural Resources: Classification	L2	CO 2				

11	II	Water Resources; Availability, sources and Quality Aspects	L2					
12		Water Borne Water Induced Diseases	L2					
13		Fluoride and Arsenic Problems in Drinking Water	L2					
14		Mineral Resources; Material Cycles	L2					
15		Carbon cycle, Nitrogen cycle	L2					
16		Sulfur cycles.	L2					
17		Energy Resources; Conventional and Non conventional Sources of Energy	L2					
18		Forest Resources; Availability,	L2					
19		Depletion of Forests Environment impact of forest depletion on society.						
20	II I	Water Pollution, Air Pollution,	L2					
21		Soil Pollution, Noise Pollution						
22		Solid waste management.	L2					
23	I V	Global Warming	L2					
24		Green House Effects, Climate Change,	L2					
25		Acid Rain,	L2					
26		Ozone Layer Formation and Depletion	L2					

27	I V	Population Growth Automobile pollution	L2	CO 4							
28		Burning of paddy straw	L2								
29	V	Environmental Protection Act 1986	L2	CO 5							
30		Initiatives by Non Governmental Organizations (NGO's)	L2								
31		Human Population and the Environment:	L2								
32		Population growth	L2								
33		Environmental Education, Women Education.	L2								
34		Revision	L2								
35		Revision	L2								
36		Revision	L2								
37		Revision	L2								
38		Revision	L2								
39		Revision	L2								
					<b>Class Test</b>		<b>Syllabus</b>				
					<b>CT-01</b>		<b>Class 1-Class 19</b>				
					<b>PRE-AKTU</b>		<b>FULL SYLLABUS</b>				

**\*Revised Bloom's Taxonomy (RBT) Levels:**

L1 - Remembering; L2 - Understanding; L3 - Applying; L4 - Analysing; L5 - Evaluating; L6 - Creating

**Reference Books:**

1. Textbook of Environment and Ecology by Dave, Katewa & Singh, 2nd Edition, Cengage Learning

India Pvt Ltd Delhi.

2. Environmental Studies by S Deswal, Dhanpat Rai & Co.

3. Environmental Studies by VK Ahluwalia, 2nd Edition, TERI Press, New Delhi.

4. Environmental Studies by R Rajgopalan, Oxford University Press.

5. Environment & Ecology by Singh & Malviya, Acme Learning

**Faculty Sign**

**HOD's sign**