

Subject Code: 01EN0101
Subject Name: Basics of Environmental Studies
B.Tech. Year – I

Objective: Students should gain basic understanding of Environmental Engineering.

Credits Earned: 2 Credits

Course Outcomes: After completion of this course, student will be able to

- Understand and realize the multidisciplinary nature of Environment & its components.
- Know the importance of natural resources for the sustainable development of life.
- Understand the effect of growing population on the Environment.
- Classify the different types of pollution and measure to control pollution
- Learn about the Environmental issues faced globally and various steps taken globally to solve such Environmental issues.

Teaching and Examination Scheme

Teaching Scheme (Hours)			Credits	Theory Marks			Tutorial/ Practical Marks		Total Marks
Theory	Tutorial	Practical		ESE (E)	IA	CSE	Viva (V)	Term work (TW)	
2	0	0	2	50	30	20	0	0	100

Contents:

Unit	Topics	Contact Hours
1	<u>Introduction and Ecology</u> Introduction to Environment, Ecology, Ecosystem	4

2	<u>Population and Environment</u> Factors Affecting Human Settlement, Define Over Population & Explain the Cause, Effect on Environment & Control of it, Methods of Population forecasting	5
3	<u>Environmental Resources</u> Forest resources, Energy resources, Water Resources and Land Resources	8
4	<u>Environmental Pollution</u> Water pollution, Air & Noise Pollution, Environmental sinks, solid and hazardous waste, E-waste & Biomedical waste, Introduction to Green chemistry	8
5	<u>Global Environmental Issues</u> Green house Effect, Global warming, ozone layer depletion, Climate change, Acid Rain, Global Efforts to control issues	3
6	<u>Governmental bodies for Environmental protection</u>	2
Total Hours		30

Recommended Textbooks:

1. Basics of Environmental Studies by U K Khare, 2011 Published by Tata McGraw Hill
2. Environmental Science A Global Concern by William P. Cunningham and Mary Ann Cunningham Published by Tata Mc Graw Hill

Suggested Theory distribution:

The suggested theory distribution as per Bloom's taxonomy is as per follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation					
Remember	Understand	Apply	Analyze	Evaluate	Create
30%	25%	25%	5%	5%	10%

Instructional Method:

- a. The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.
- b. The internal evaluation will be done on the basis of continuous evaluation of students in the laboratory and class-room.
- c. Students will use supplementary resources such as online videos, NPTEL videos, e-courses, Virtual Laboratory