

Course Title: ENE-102, Introduction to Environmental Studies

Credit Hours: 3

Level Semester 1

Course Introduction

In the last few decades “environment” has become a buzz word. A basic understanding of this term has become necessary in every field of life. Therefore, this course is designed for non-environmental science students keeping in view their diverse background of science and non- science subjects. This course only provides a basic understanding of the environment around us which is necessary to understand the environmental problems we face in our everyday life. This course is designed to provide a basic understanding of the environment, its components and its processes. The course will also provide a brief history and background of the environmental movements.

The course is designed to demonstrate knowledge and understanding of the environmental pollution, its causes and impact on human beings and ecosystem. Course will take a multidisciplinary approach and will cover contemporary environmental problems. Course will be beneficial in general to all students but particularly for students of economics, sociology, communication studies, management sciences and law due to wide scale application of these concepts in these fields.

The course will provide an introduction to a range of "global environmental challenges" facing humanity. It will provide the necessary background to understanding the policies, politics, governance and ethics, and decision-making processes that underpin the causes of, and responses to, environmental change. It will include an appreciation of the social construction of the term global environmental challenges and the implications of this.

Course Objectives

The course is designed to:

- provide students with a basic understanding of the environment, its components and processes.

- develop student capabilities to understand the man-environment interaction and ways human can impact environment.

- Provide:

(1) an introduction of human attitude towards environment and how it has changed overtime,

(2) overview of the pollution; its causes and impacts,

(3) understanding of the role of human activities in causing environmental pollution,

(4) outline of the factors including physic-chemical, biological and socio-economic which contribute to accelerate or de-accelerate the rate of pollution.

Course Learning Outcomes

CLO No	Course Learning Outcomes	Bloom Taxonomy
CLO-1	Understand Environmental issues and their outcomes	C2 (Understand)
CLO-2	Analyze key contemporary environmental challenges	C3 (Apply)
CLO-3	Examine impact of human activity on climate change	C3 (Apply)

Course Contents

S.No	Weekly Distribution of Course Contents
Week 1	Environment; definition and concept Ecosystem, its component; material and energy flow in an ecosystem
Week 2	Terrestrial and aquatic ecosystems Biomes and their distribution
Week 3	Atmosphere; composition, air pollution, causes and its impacts. Hydrosphere; water distribution on earth, water quality and quantity problems.
Week 4	Lithosphere; earth structure, soil resources, pollution and problem.
Week 5	Human population and resource use

	Human attitude towards environment; history and background.
Week 6	Environmental Pollution: Concept, history and background
Week 7	Pollution sources and types: point and non-point sources.
Week 8	Air pollution; sources, types of pollutants, sources and fate, impacts on human health and on environment
Week 9	Mid Term
Week 10	Water pollution; water quality and quantity problems, sources, types of pollutants, sources and fate, impacts on human health and on environment
Week 11	Solid Waste Noise Pollution
Week 12	Toxic chemicals in environment
Week 13	Approaches to manage environmental pollution
Week 14	Global Environmental Problems: Ozone Depletion; history, science, world response
Week 15	Climate change: a myth or reality Conflicting Theories
Week 16	Climate change scientific basis, its impacts, world response Climate change politics. Acid Rain.
Week 17	Human Population and sustainability International environmental laws
Week 18	End Term Exam

Recommended Readings

- *Environmental Science: Earth as a Living Planet*, Botkin, D.B & Keller, E.A. 9th Ed. John Wiley & Sons, 2013.
- *Environmental Science: systems and solutions*, McKinney, M.L., Schoch, R.M. & Yonavjak, L. 5th Ed. Jones & Bartlett Publishers, 2013

- *Environmental Science: Toward a Sustainable Future*, Wright, R.T. & Nebel, B.J. 10th Ed. Pearson Educational, 2007.
- *Environmental Science: Earth as a Living Planet*, Botkin, D.B & Keller, E.A. 9th Ed. John Wiley & Sons, 2013.
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- *Environmental Science: working with the Earth.*11th Ed. Miller, G., Tyler. Cengage Learning, 2005.
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- *Environmental Science: working with the Earth.*11th Ed. Miller, G., Tyler. Cengage Learning, 2005.
- *Al Gore Documentary: “ An inconvenient Truth”*