



# C. U. SHAH UNIVERSITY

## **FACULTY OF SCIENCES** **DEPARTMENT OF LIFE SCIENCES**

**COURSE: B.Sc.**

**SEMESTER: I**

**SUBJECT NAME: Environmental Science**

**SUBJECT CODE: 4SC01EVS1**

### **Teaching & Evaluation Scheme:-**

Teaching hours/week				Credit	Evaluation Scheme/semester								
Th	Tu	Pr	Total		Theory				Practical				Total Marks
					Sessional Exam		University Exam		Internal		University		
					Marks	Hrs	Marks	Hrs	Pr	TW			
3	0	0	3	3	30	1.5	70	3	--	--	--	100	

**Objectives:** - The primary objective of this course is to make people aware of the importance of environment on health of every individual and the society as a whole.

**Prerequisites:** - Basic understanding of concepts related to environment and awareness about the harmful effects of pollution are required to understand the concept better.

### **Course outline:-**

Sr. No.	Course Contents	Hours
1	<b>The Multidisciplinary nature of environmental studies</b> Definition, scope and importance. Need for public awareness.	02
2	<b>Environment Concept:</b> Introduction, concept of biosphere-lithosphere, hydrosphere, atmosphere; Biogeochemical cycle.	10
3	Principles and scope of Ecology; concepts of ecosystem, population, community, biotic interactions, biomes, ecological succession.	06
4	<b>Natural Resources:</b> Renewable and non-renewable resources. • Natural resources and associated problems.	06
5	<b>Environmental Pollution:</b> Causes, effects and control measures of:- Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution & Nuclear hazards.	12
6	<b>Conservation of Environment:</b> The concepts of conservation and sustainable development, why to conserve, aims and objectives of conservation, policies of conservation; conservation of life support systems-soil, water, air, wildlife, forests.	04
7	<b>Biodiversity:</b> What is biodiversity, levels and types of biodiversity, importance of biodiversity, causes of its loss, how to check its loss; Hotspot zones of the world and India, Biodiversity Act, 2002.	05



## **C. U. SHAH UNIVERSITY**

### **Learning Outcomes:-**

- The course provides knowledge regarding conservation of environment which is very crucial in the present day scenario.

### **Books Recommended:**

1. 'Introduction to Environmental Engineering and Science', **G. M. Masters**, *Prentice Hall of India Pvt. Ltd.*
2. 'Environmental Science', **B. J. Nebel**, *Prentice Hall of India Pvt. Ltd.*
3. 'Ecology: The Link between the natural and social sciences', **E. P. Odum**, *IBH Publishing Com., Delhi.*
4. 'Environmental Studies', **Snehal Popli**, *Mahajan Publication.*
5. 'Environmental Studies', **R. Rajagopalan**, *Oxford University Press.*
6. 'Environmental Pollution: Causes, Effects and Control', **K. C. Agrawal**, *Nidhi Publishers, New Delhi.*

### **E-Resources:**

1. [en.wikipedia.org/wiki/Environmental\\_science](http://en.wikipedia.org/wiki/Environmental_science)
2. [www.iisc.ernet.in/ug/environmentalscience.htm](http://www.iisc.ernet.in/ug/environmentalscience.htm)
3. [www.sciencedaily.com/gallery/earth\\_climate/environmental\\_science/](http://www.sciencedaily.com/gallery/earth_climate/environmental_science/)
4. [environment.nationalgeographic.co.in/](http://environment.nationalgeographic.co.in/)