Sl. No.	Sub. Code	Theory	Contact Hours			Credit
			L	T	P/S	
3.	22AR333	Ecology and Environment	2	0	1	3

Course Objective	To bring about awareness of a variety of environmental concerns and to create a pro-environmental attitude and behavioural pattern in society based on sustainable lifestyles.
Anticipated Learning Outcomes:	Ability to explain the fundamentals related to Ecosystem; To develop understanding of the Environment and Environmental issues, their causes and mitigation measures; ability to apply the ecological and environmental principles and guidelines learnt to their architecture/planning projects.
Module 1 Introduction	Definition and origin of ecology, Basic concepts of ecology, Major divisions of ecology, Definition of environment, Interaction among ecological factors – light & temperature, precipitation, humidity, gases/wind, topography. Global warming & climate change, Loss of biodiversity, Desertification, Deforestation.
Module 2 Ecosystem	Kinds of ecosystem, Structure, Function and energy flow of ecosystem. Ecological succession, Ecosystem development, Climax concept.
Module 3 Soil, Water & Air	SOIL – EDAPHIC FACTORS: Definition of soil, Formation of soil, Soil profile, Classification, Soil complex, Soil depletion, degradation and conservation, relation of soil and built environment. WATER REGIMES: Water in nature, Water balance problem, Surface / ground water, Sources of water pollution, Groundwater pollution, Marine pollution, Prevention control of pollution, Conservation & management, impact of human intervention on water. AIR POLLUTION: Kinds of air pollution, Sources of air pollutants, Effects – Depletion of Ozone, Acid Rain, Prevention & control of air – pollution, Noise pollution, Effect of human habitat and human activity on atmosphere.
Module 4 Built Environment and Ecology	Understanding the interrelationship between man, nature and built-form (in urban / rural area). Strategies to transform the built-environment to meet the risk of climate change.

Note: Most Architectural subjects do not have Textbooks. The Reference books mentioned below are for reference only and University question paper should be prepared from the Syllabus descriptions.

References

1. *Barucha, E.,2004. Text Book Of Environmental Studies for Undergraduate Courses. UGC Univ. Press*
2. *Joseph, Benny, 2005. Environmental Studies. Tata McGraw Hill*
3. *Kaushik, A. and Kaushik, C.P., 2010. Basics of Environment and Ecology. New Age Int. Publishers*
4. *Agarwal, K.C., 2001. Environmental Biology. Nidhi Publ. Ltd. Bikaner*
5. *Brunner, R.C., 1989. Hazardous Waste Incineration. McGraw Hill*