

Course code	Course Title	C	H	I	E	T
17U4BMC4	ECOLOGY	2	2	25	75	100

Objective:

To unravel the myth and mysteries of nature by way of studying structure and dynamism of different organisms with their respective environments.

Learning Outcome:

Provided a scientific basis for the aims of environmentalism

UNIT I (5 Hr)

Ecology – Definition and subdivisions; Factors of environment: Abiotic – Light, temperature and edaphic factors (Soil types and profile)

UNIT II (5 hr)

Biotic interactions : positive – (Symbiosis and Commensalism). Negative-(Parasitism & Allelopathy).

UNIT III (10 hr)

Ecosystem – Definition, structure and functions of Pond ecosystem, Role of producers, consumers and decomposers. Energy flow, food chain and food web. Ecological pyramids and succession (hydrosere).

UNIT IV (5 hr)

Ecological resources and risks: depletion & sustainability. Renewable and non-renewable sources of energy. Climate change & global warming. Plastic wastes.

UNIT V (5 hr)

Environmental Pollution: Air & Water Pollution - Definition, causes, effects & control measures.

References:

1. Odum, E.P. 1991. Fundamentals of Ecology, III Edition, Saunders & com.
2. Dash, M.C. 1993. Fundamentals of Ecology. Tata McGraw Hill, New Delhi.
3. Sharma, J.P. 2004. Environmental studies. Laxmi publications (P) Ltd., New Delhi.
4. Gopal, B. and Bharadwaj, B. 1979. Elements of Ecology, Vikas Publishing House Pvt. Ltd.
5. Willings, W. D. 1964. Plants and Ecosystem. Wasworth Publishing Co.,
6. www.web-ecology.net
7. www.ecology.com

Practicals:

1. Vegetation study – quadrat method.
2. Study of the morphological and anatomical adaptations of locally available hydrophytes, xerophytes, mesophytes and halophytes to correlate their habitat.