

Details of course: -

Course Title	Course Structure			Pre-Requisite
	L	T	P	
Ecology and Evolution(BT312)	3	1	0	NIL

Course Objective:

Ecology develops an understanding of the differences in structure and function of different types of ecosystems and familiarize with the variety of ways that organisms interact with both the physical and the biological environment while Evolutionary explanations pervade all fields in biology and bring them together under one theoretical umbrella. It increases understanding of the causes, processes and consequences of evolution.

Course Outcome:

1. Appraise the relevance of studying ecology and its history.
2. List abiotic factors, laws of limiting factors and other laws.
3. Define ecosystem, community, sustainable development trophic levels and nutrient cycles.
4. Discuss basics of evolution like Lamarckism, Darwinism, Neo-Darwinism
5. Impart knowledge of Population Genetics and evolutionary changes.

S.No.	Content	Contact Hours
1.	Introduction to Ecology: Relevance of studying ecology, its history, autecology, synecology, Species (Sympatric and Allopatric).	8
2.	Ecosystem, Biome, Biosphere and Ecosphere: Abiotic Factors, Laws of limiting factors- Liebig's law of minimum and Shelford's law of tolerance.	9
3.	Population & its growth: Ecosystem, Community, Sustainable development, Biodiversity, Trophic levels, Nutrient cycles.	9
4.	Introduction to Evolution: Lamarckism, Darwinism, Neo-Darwinism, An overview (chemogeny, biogeny, the RNA World).	8