

Curriculum plan (Odd Semester 2024)

Teacher Name: **Mr. Gulshan Yadav**

Paper name: **Evolutionary Ecology**

Course: **B. Sc. Life Science Sem. V**; Group: **All (Practical)**;

Paper shared with: **Dr. Rojina Devi and Dr. Kanchan Batra**

Month	Practical
August 2025	• Study of Phytoplankton and zooplankton from an aquatic ecosystem • Measurement of temperature, turbidity/penetration of light, determination of pH
	• Determination of Dissolved oxygen content (Winkler's method) from different water samples
	• Determination of Free carbon dioxide and hardness in different water sample
	• Study of life tables and plotting of survivorship curves of different types from hypothetical/ real data
September 2025	• Determination of population density in a natural or a hypothetical community by quadrat method and calculation of Shannon-Weiner diversity index
	• Determination of Chemical oxygen demand from different water samples
	• Determination of chlorides in different water sample
	• Study and verification of Hardy-Weinberg Law by Chi-square analysis
	• Catch, mark and recapture technique for finding the population size.
October 2025	• Lotka-Volterra equation significance in competition; Lotka-Volterra equation, functional and numerical responses in Predation
	• Study of homology, analogy and homoplasy from suitable specimens
	• Gause's Principle with laboratory and field examples
	• Construction of cladograms based on morphological characters
	• A visit to a National Park/Biodiversity Park/Wildlife Sanctuary
November	REVISION and MOCK PRACTICAL TEST