

Curriculum Plan
Dr. Tarkeshwar

B.Sc. Life Science, V Semester, III Year

Paper: DSE: Evolutionary Ecology

Month-wise plan for Practical

Shared with: Dr. Rojina and Dr. Varsha Singh

Period Assigned: Group 1, 4 Period

Month	Weekly schedule	Practical Exercise to be covered
August	2 nd week	Study of the phytoplankton and zooplankton: Collection of specimens from an ecosystem (pond) to study its biotic and abiotic components.
	3 rd -5 th week	Measurement of temperature, turbidity/penetration of light, determination of pH, Dissolved Oxygen content (Winkler's method), chlorides, hardness, Chemical Oxygen Demand, free CO ₂ .
September	1 st -2 nd week	Determination of population density in a natural/hypothetical community by quadrature method and calculation of Shannon-Weiner diversity index for the same community.
	3 rd week	Study of life tables and plotting of survivorship curves of different types from the hypothetical/real data provided.
	4 th week	Gause's Principle with laboratory and field examples, Lotka-Volterra equation-significance in competition; Lotka-Volterra equation, functional and numerical responses in Predation.
October	1 st week	Visit to any natural history museum/National Park/Biodiversity Park/Wildlife Sanctuary and submission of a report.
	2 nd week	Catch, mark and recapture technique for finding the population size.
	3 rd week	<ul style="list-style-type: none"> • Study of homology, analogy and homoplasy from suitable specimens. • Construction of cladograms based on morphological characters.
November	2 nd week	Study and verification of Hardy-Weinberg Law by Chi-square analysis
	3 rd week	Revision and report submission
	4 th week	Practical examination