

DEPARTMENT OF ZOOLOGY
SAROJINI NAIDU COLLEGE FOR WOMEN

ACADEMIC CALENDAR

SEMESTER 1

CORE COURSE-I (ZOOACOR01T)

NON-CHORDATES I: PROTISTS TO PSEUDOCOELOMATES

UNITS	TOPICS	SUB TOPICS	ALLOTTED TEACHER	NO. OF CLASS	MONTH COVERED
1	Protista, Parazoa and Metazoa	General characteristics and Classification up to classes Study of <i>Euglena</i> , <i>Amoeba</i> and <i>Paramoecium</i> Life cycle and pathogenicity of <i>Giardia intestinalis</i> , <i>Leishmania donovani</i> , <i>Entamoeba histolytica</i> and <i>Plasmodium vivax</i> . Locomotion and Reproduction in Protista. Evolution of symmetry and segmentation of Metazoa.	MB/SB1	19	JULY AUGUST
2	Porifera	Characteristics and Classification up to classes. Canal system and spicules in sponges.	SAB	7	AUGUST
3	Cnidaria	General characteristics and Classification up to classes Metagenesis in <i>Obelia</i> Polymorphism in Cnidaria, Corals and coral reefs: types, formation, distribution, conservation significance	SAB	12	SEPTEMBER OCTOBER
4	Ctenophora	General Characteristics.	SAB	4	JULY AUGUST
5	Platyhelminthes	General characteristics and Classification up to classes Life cycle and pathogenicity of <i>Fasciola hepatica</i> and <i>Taenia solium</i>	MB	10	AUGUST SEPTEMBER
6	Nemathelminthes	General characteristics and Classification up to classes Life cycle, and pathogenicity of <i>Ascaris lumbricoides</i> , <i>Ancylostoma duodenale</i> and <i>Wuchereria bancrofti</i> Parasitic adaptations in helminthes Origin and evolution of parasitic helminthes	MB	8	SEPTEMBER OCTOBER

CORE COURSE-I (ZOOACOR01P)
NON-CHORDATES I: PROTISTS TO PSEUDOCOELOMATES

UNITS	TOPICS	SUB TOPICS	ALLOTTED TEACHER	NO. OF CLASS	MONTH COVERED
1	Study of whole mount of	<i>Euglena, Amoeba and Paramecium</i> , Binary fission and Conjugation in <i>Paramecium</i> .	MB	10	JULY
2	Examination of	Freshwater pond water collected from different places for diversity of protists in it.	MB	10	AUGUST
3	Study of	Sycon (T.S. and L.S.), <i>Hyalonema, Euplectella, Spongilla, Obelia, Physalia, Millepora, Aurelia, Tubipora, Corallium, Alcyonium, Gorgonia, Metridium, Pennatula, Fungia, Meandrina, Madrepora</i> .	SAB	18	AUGUST
4	Slide	One specimen/slide of any Ctenophore.	SAB	2	JULY
5	Study of	Adult <i>Fasciola hepatica, Taenia solium</i> and their life cycles (Slide/microphotographs). Adult <i>Ascaris lumbricoides</i> and its life stages (Slides/micro-photographs).	MB	10	AUGUST
6	Project Report	To submit a Project Report on any related topic on pond water protozoan or invertebrate diversity/ life cycles of mosquitoes, butterfly/moth etc / coral and coral reefs.	MB/SAB	10	SEPTEMBER, OCTOBER NOVEMBER

**CORE COURSE-II (ZOOACOR02T)
PRINCIPLES OF ECOLOGY**

UNITS	TOPICS	SUB TOPICS	ALLOTTED TEACHER	NO. OF CLASS	MONTH COVERED
1	Introduction to Ecology	History of ecology Autecology and Synecology Levels of organization Laws of limiting factors Study of Physical factors The Biosphere.	TP	4	JULY AUGUST
2	Population	Unitary and Modular populations Unique and group attributes of population: Demographic factors, life tables, fecundity tables, survivorship curves, dispersal and dispersion. Geometric, exponential and logistic growth, equation and patterns, r and K strategies Population regulation - density-dependent and independent factors Population Interactions, Gause's Principle with laboratory and field examples, Lotka-Volterra equation for competition.	SAB	20	JULY AUGUST
3	Community	Community characteristics: species diversity, abundance, dominance, richness, Vertical stratification, Ecotone and Edge effect. Ecological succession and one example of it.	SAB	11	SEPTEMBER OCTOBER
4	Ecosystem	Types of ecosystem with an example in detail Food chain: Detritus and grazing food chains, Linear and Y-shaped food chains Food web Energy flow through the ecosystem Ecological pyramids Ecological efficiencies Nutrient and biogeochemical cycle with an example of Nitrogen cycle Human modified ecosystem	SB1	10	JULY AUGUST SEPTEMBER
5	Applied Ecology	Wildlife Conservation (in-situ and ex-situ conservation). Management strategies for tiger conservation Wild life protection act (1972).	TP	5	SEPTEMBER OCTOBER

**CORE COURSE-II (ZOOACOR02P)
PRINCIPLES OF ECOLOGY**

UNITS	TOPICS	SUB TOPICS	ALLOTTED TEACHER	NO. OF CLASS	MONTH COVERED
1		Study of life tables and plotting of survivorship curves of different types from the hypothetical/real data provided.	SAB	10	AUGUST SEPTEMBER
2		Determination of population density of a natural/hypothetical population. Study of species diversity of a community by quadrat or any other suitable sampling method and calculation of Shannon-Weiner diversity index for the same community.	MB/SAB	15	SEPTEMBER OCTOBER
3		Study of an aquatic ecosystem: Sampling of Phytoplankton and zooplankton Measurements of temperature Measurements turbidity/penetration of light Determination of pH Dissolved Oxygen content (Winkler's method) Chemical Oxygen Demand and free CO ₂ .	SN/SB2	25	JULY AUGUST SEPTEMBER
4		Excursion: Visit to a National Park/ Wild life sanctuary/ any other Protected Forests within West Bengal. Report (including the actual field diary) on the study of the landscape and habitat features, Types of Forests, Major Flora and Fauna, Man-animal conflicts and other problems, Management and conservation measures.	MB/SAB	10	OCTOBER NOVEMBER