Saibaba Arts and Science College Parseoni, Nagpur 441105
Department of Zoology

Course Outcome (CO): Zoology (Semester-wise)

Semester I:-

Paper I and Paper II main goals are to provide students a basic understanding of animals (cordless), diversity, and the ability to develop conservation instincts and environmental awareness.

Paper – I : Life and Diversity of Animals-Nonchordates (Protozoa to Annelida) and
Paper -II : Environment Biology

CO1	To familiar students with unicellular animals starting from protozoans, poriferans, coelenterates, poriferans and coelenterates
CO2	To familiar students with animals including annelids & their applied aspect, also platyhelminth & their parasitic adaptations
CO3	To understand the different spheres of environment, energy resources and different environmental pollutions and control
CO4	To understand the ecology interaction including biotic, abiotic factors also the biodiversity & ecological conservational aspects

Semester II:-

Providing a foundational understanding of the cell as a structural and functional unit of life and of surviving animals (cordless) is the primary goal of papers III and IV.

Paper - III : Life and Diversity of Animals- Non-chordates (Arthropoda to Hemichordata)
Paper - IV : Cell Biology

CO1	To familiar students with animals starting from arthropodans & molluscs along with their larvae
CO2	To familiar students with animals including echnidermata their larvae & primitive half-cord animals
CO3	To understand the different aspects cell and its organelles (membrane) and its organelles (metabolic cycle)
CO4	To understand the different aspects cell and its organelles (hereditary aspects) & cell propagation and ageing

Semester III:-

Paper V and Paper VI's primary goals are to give foundational understanding about animal cord variety as well as a basic set of genetic principles and components.

Paper - V : Life and Diversity of Animals-Chordates (Protochordata to Amphibia)
Paper - VI : Genetics

CO1	To familiar students with animals having notochord such as fishes and amphibians with parental care
CO2	To familiar students with developmental aspects of fish with developmental aspects of amphibian (frog)
CO3	To familiar students with mendelian inheritance with non-mendellian inheritance
CO4	To familiar students with chromosomal aberrations & anomalies with applied aspects genetics such as counselling

Semester IV:-

Fundamental knowledge of the diversity of surviving creatures (with cords) and a basic understanding of molecular biology, immunology, and the methods used to pique interest in and inclination towards study are the major goals of papers VII and VIII.

Paper - VII : Life and Diversity of Animals-Chordates (Reptilia, Aves and Mammals)

Paper - VIII : Molecular Biology and Immunology

CO1	To familiar students with reptiles, birds and mammals with animal evolution aspects
CO2	To familiar students with comparative studies of reptiles, birds and mammals with stem cell concept & animal behaviour
CO3	To familiar students with molecules of life, DNA & RNA & gene concept and its regulation
CO4	To understand the concept of immunity the responses and deficiencies in immunity

Semester V:-

Giving a basic understanding of the comparative physiology of various systems in the live organism and giving an overview of applied zoology are the main goals of Papers IX and X.

Paper - IX : General Mammalian Physiology I

Paper - X : Applied Zoology I (Aquaculture and Economic Entomology)

CO1	To familiar students with enzymes and their role in physiology, digestive physiology and their enzymes
CO2	To know about the respiratory physiology, cardiac cycle and haematological aspects.
CO3	To aware students with fundamentals commercial fisheries, aquaculture practices & disease control
CO4	To understand the economics of crop & animal pests also, to aware students with industrial entomological practices

Semester VI:-

Fundamental knowledge of the comparative physiology of the remaining systems in the living organism, as well as an understanding of practical strategies employed to stimulate interest in zoological research and higher education, are the major goals of Papers XI and XII.

Paper - XI : General Mammalian Physiology II

Paper - XII : Applied Zoology II (Biotechniques, Microtechnique, Biotechnology, Bioinformatics and Biostatistics)

CO1	To familiar students with nerve, muscle coordination, normal & abnormal excretory physiology
CO2	To understand the endocrine control on body, about the reproduction and its control through various tools
CO3	To familiar students with bio-molecular separation technologies, micro techniques studies in animal tissue
CO4	To make students aware of fundamental biotechnological applications and to enable statistical application & bioinformatics approach