COURSE OFFERED

M.Sc. Zoology

PROGRAMME OUTCOMES

PO1	Apply domain based knowledge to real life situation.
PO2	Acquire strong communication skills to function effectively in diverse social atmosphere.
PO3	Adopt environmental values to enable sustainable living in the world.

PROGRAMME SPECIFIC OUTCOMES

PSO1	Understanding the concepts in Biological Sciences.
PSO2	Acquire skills in Biological Instrumentation for research and applied sciences.
PSO3	Incorporate environmental and ethical practices in scientific study.

COURSE OUTCOMES

Course Name and code	Course outcome statements
SEMESTER I ZL010101 - Animal Diversity:Phylogenetic and Taxonomic Approaches	CO1 -Understand the classification and phylogeny of animals CO2-Describe general characteristics, classification of invertebrates and vertebrates. CO4-Describing general taxonomic rules on animal classification
SEMESTER I ZL010102 – Evolutionary Biology and Ethology	CO1-Understand the process of biological evolution. CO2-Analyze evolution at molecular level. CO3-Understand animal behavior and response of animals to different instincts.
SEMESTER I ZL010103-Biochemistry	CO1-Understand the structure, properties ,formation and functions of various biomolecules CO2-Explain major metabolic pathways. CO3-Understand the major concepts in Enzymology.

SEMESTER I ZL010104 – Biostatistics and Research Methodology	CO1-Understand the methods of data collection, tabulation and presentation. . CO2-Apply various statistical tests and problem solving methods for data analysis. CO3-Acquire skills in writing scientific literatures.
SEMESTER I ZL010105 – Evolutionary,Ethological and Biochemical Approaches and Methods	CO1- Understand the scientific classification and biological and phylogenetic significances of various life forms. CO3- Understand the behavior pattern of various organisms based on observation studies. CO4-Demonstrate the biochemical aspects of tissues and fluids using various tests. CO5- Acquire skills for statistical analysis using various softwares and online tools.
SEMESTER II ZL010201 – Field Ecology	CO-1-Understand the diversity of life forms in an ecosystem and their inter- relationships. CO2-Describe the concepts in population ecology. CO3-Understand environmental pollution and their management.
SEMESTER II ZL010202 – Developmental Biology	CO1-Understand the basic concepts of developmental biology. CO2-Explain the genetics of development. CO3-Understand the application of developmental biology on human welfare.
SEMESTER II ZL010203 – Genetics and Bioinformatics	CO1-Understand the basic principles and mechanism of inheritance. CO2-Analyze the role of genetics in evolution. CO3-Explore the emerging field of bioinformatics and its tools.

SEMESTER II ZL010204 – Microbiology and Biotechnology	CO1-Understand the basic structural aspects of microbes and their interactions. CO2-Explain the basic tools and techniques in biotechnology. CO3-Familiarize with public policy, biosafety and intellectual property rights issues related to biotechnology
SEMESTER II ZL0102005 – Diversity of Life :Ecological,Embryological ,Hereditary and Microbial Methods and Approaches	CO1- Analyze various quality parameters of water and soil. CO2- Understand various developmental stages, genetic problems and gene mapping CO3- T o become skilled in using various bioinformatics tools and microbiological methods.
SEMESTER III ZL010301- Animal Physiology	CO1-Explain the structure and functions of various organs. CO2-Compare the functioning of various organ systems across the animal field. CO3-Understand the concepts of endocrinology.
SEMESTER III ZL010302- Cell and Molecular Biology	CO1- Explain the structural and functional details of cells at molecular level. CO2-Understand various signaling pathways that regulate different physiological processes. CO3-Understand the concepts of gene regulation and expression,cell cycle and cancer.
SEMESTER III ZL010303-Biophysics,Instrumentation and Biological Techniques	CO1-Understand the biological system and processes based on physical principles. CO2-Familiarize with the tools and techniques of various instruments available for biochemical and biophysical studies. CO3-Training the operational skills of different instruments required in Zoology.
SEMESTER III ZL010304- Immunology	CO1-Understand the basic components of immune system. CO2-Explain the role of immunology in organ transplantation. CO3-Analyze the new developments in immunology and its role in human health and well-being
SEMESTER III ZL010305 – Molecular,Physiological	CO1- Perform micrometric,microscopic and chromatographic techniques.

and Immunological Methods and Approaches in Biosciences	CO2- Demonstrate various histochemical staining methods. CO3- Understand nerve and muscle physiology using virtual practical methods.
SEMESTER IV ZL810401 –Environmental Science: Concepts and Approaches (Elective)	CO1-Understand the components of environment and influence of man on environment. CO2-Equip various tools and techniques for the study of environment. CO3-ExplorE new strategies for management and conservation of environment.
SEMESTER IV ZL810402-Environmental Pollution and Toxicology (Elective)	CO1-Understand the types, sources and effects of various kinds of pollution. CO2-Explain the tools and techniques for the control and management of various kinds of pollutants. CO3-Analyze the effect of various toxicants and their monitoring measures.
SEMESTER IV ZL810403-Environmental Management and Development (Elective)	CO1-Understand the basic principles of environmental management. CO3-Explain the concept and steps of Environmental Impact Assessment. CO5-Understanding the concepts of sustainable development and principles of disaster management.
SEMESTER IV ZL810404- Environment science	CO1- Test various soil ,water and air quality parameters using standard tests. CO2- Elucidate histopathological changes in tissues. CO3- Understand the biodiversity and ecological interactions in a nearby ecosystem.
SEMESTER IV ZL010401 - Project	CO1- Explore the methods and techniques in various fields of Biology. . CO2- Skilled in scientific paper writing. CO3- Pursue the field of research.
SEMESTER IV ZL010402- Viva	CO1- Developing thorough knowledge in Zoology. CO2- Update the knowledge in field of Biology..