

PSO's and CO's for B.Sc. Zoology (2023-24)

PSO's for B.Sc. Zoology are as follows

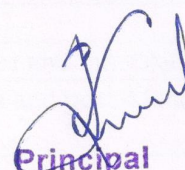
PSO1	Understand the history of life, evolution and extinction events.
PSO2	Classify and describe different phyla and get insights into animal diversity.
PSO3	Analyze cell structure and explore biotechniques in molecular cell biology.
PSO4	Explore genetics, inheritance and genetic diversity.
PSO5	Understand the metabolic pathways, biochemical processes and enzyme kinetics.
PSO6	Compare the anatomy and physiology of vertebrates and invertebrates.
PSO7	Examine reproductive and developmental biology of vertebrates and invertebrates.
PSO8	Illustrate disease epidemiology and immunology.
PSO9	Evaluate different ecosystems and apply biostatistics concepts.
PSO10	Gain knowledge on applied zoology: breeds/species, management and technology.

Name of the programme	Paper Nos. for courses	Course code	Course Name	Course Outcome
				Upon successful completion of the course, students will be able to:
B.Sc. Zoology	I	DSC – 15A	Animal Diversity-I	Classify and describe organisms with adaptations.
				Understand metamerism in Annelida.
				Explain Arthropoda's vision and metamorphosis.
				Describe Phylum Echinodermata's water-vascular system.
				Identify animals and their evolutionary significance.
B.Sc. Zoology	II	DSC – 16 A	Cell Biology and Evolutionary	Cell theory and cell diversity
				Ultrastructure and function of cell organelles
				Understand history of life.
				Explain extinction events and direct evidences of evolution.
				Understand evolutionary theories and contributions.
B.Sc. Zoology	III	DSC – 15 B	Animal Diversity and Insect Vector	Examine rat's anatomy and habitat.
				Gain insights into insect vectors.
				Understand disease transmission and
				Analyze morphological adaptations in
				Recognize animal diversity and insect vectors' significance.
B.Sc. Zoology	IV	DSC – 16 B	Genetics	Understand genetics and inheritance.
				Explain Mendelian and post-Mendelian genetics.
				Discuss on linkage and crossing over.

Name of the programme	Paper Nos. for courses	Course code	Course Name	Course Outcome
				Explore chromosomal mutations and sex determination.
				Understand genetic diversity and inheritance mechanisms.
B.Sc. Zoology	V	DSC-C	Animal Diversity-II - NEP 2020	Identify and classify organisms in Hemichordata, Protochordata, Agnatha (cyclostomes), and Pisces.
				Understand the unique features of amphibians and reptiles.
				Explore the anatomy and physiology of
				Learn about the diversity of reptiles, birds, and mammals.
				Differentiate between venomous and non-venomous snakes and understand snake biting mechanisms.
B.Sc. Zoology	VI	DSC-C	Biochemistry - NEP 2020	Comprehend the pathways of carbohydrate and lipid metabolism.
				Understand the structure and significance of proteins.
				Explore enzyme kinetics, inhibition, and regulation mechanisms.
				Learn about the biochemical basis of physiological processes.
B.Sc. Zoology	VII	DSC-C	Reproductive Biology - NEP 2020	Understand the anatomy and hormonal regulation of pituitary glands and reproductive systems.
				Explore reproductive health, infertility causes, management, and assisted reproductive technologies.
				Analyze the complexities of contraceptive methods, both temporary and permanent.
				Study the mechanisms and hormonal regulation of pregnancy, parturition, and
B.Sc. Zoology	VIII	DSC-C	Applied Zoology-I - NEP 2020	Understand host-parasite relationships.
				Explore the epidemiology of diseases, their transmission, prevention, and control.
				Study insects of economic importance, their
				Gain knowledge of sericulture, including
				Study the principles of poultry farming,

Name of the programme	Paper Nos. for courses	Course code	Course Name	Course Outcome
B.Sc. Zoology	IX	DSE-E29	Comparative Anatomy of Vertebrates	Analyze integument structure and functions.
				Examine the various soft and hard epidermal derivatives.
				Understand the skeletal system, including the vertebral column and appendicular
				Gain insight into the digestive system, respiratory system, circulatory system
				Trace the evolutionary changes in the
				Compare the nervous system and sense organs, , in vertebrates.
B.Sc. Zoology	X	DSE-F29	Molecular Cell Biology and Animal Biotechnology	Understand DNA replication and repair mechanisms.
				Comprehend the regulation of gene expression and the operon concept.
				Analyze the genetic code, including its properties and codon assignment.
				Explore protein synthesis, covering transcription and translation in prokaryotes
				Explain molecular techniques in gene manipulation, including restriction enzymes, cloning vectors, gene cloning, and DNA sequencing.
B.Sc. Zoology	XI	DSE-F30	Biotechniques and Biostatistics	Assess the production of cloned and transgenic animals and their applications.
				Understand the principles and applications of animal cell culture and stem cells.
				Apply biostatistics concepts such as classification, frequency distribution, and measures of central tendency.
				Analyze biological data, including graphical representation and correlation.
B.Sc. Zoology	XII	DSE-F31	Aquatic Biology	Explore different aquatic biomes and ecosystems.
				Evaluate the physico-chemical characteristics of lakes and streams.
				Understand endocrinology, focusing on endocrine glands and hormones.
				Analyze the adaptations of aquatic organisms to their environments.

Name of the programme	Paper Nos. for courses	Course code	Course Name	Course Outcome
B.Sc. Zoology	XIII	DSE-E30	Developmental Biology of Vertebrates	Examine gametogenesis, types of eggs, and fertilization processes.
				Understand early development in frogs
				Explore chick embryology, covering fertilization, organogenesis, and foetal
				Explain late embryonic development (implantation and placenta formation).
B.Sc. Zoology	XIV	DSE-E32	Immunology	Gain an overview of the immune system, including innate and adaptive immunity.
				Describe hematopoiesis and the cells and
				Examine antigens and B and T cell epitopes.
				Understand immunoglobulins, antigen-antibody interactions, and the use of hybridoma technology.
B.Sc. Zoology	XV	DSE-E31	Applied Zoology – II	Learn about apiculture, bee types, beekeeping, and the medicinal value of
				Explore animal husbandry, including cattle breeds, artificial insemination, and estrus synchronization.
				Understand pearl culture, the process of pearl formation, and oyster maintenance.
				Study freshwater prawn culture, including species and farm construction.
				Examine fish technology, genetic improvements, and goat farming.
B.Sc. Zoology	XVI	DSE-F32	Insect Vectors and Histology	Analyze Dipteran as disease vectors, including mosquitoes, sandflies, and
				Study mosquito and flea borne diseases and control measures.
				Understand Siphonoptera as disease vectors and host-specificity.
				Explore the histology of mammalian organs.



Principal
Yashwantrao Chavan College
of Science, Karad