



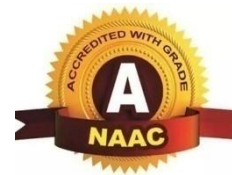
BhogawatiShikshanPrasarak Mandals'

Bhogawati Mahavidyalaya, Kurukali

Kurukali, Tal. – Karveer, Dist.- Kolhapur

Department of zoology

Programme and course outcomes of the Programmes



Name of the Program: B.Sc Zoology

B.Sc. in Zoology is an undergraduate Program in Zoology. Zoology is the branch of science which deals with the study of animal kingdom including the evolution, structure, Physiology, classification, embryology, habits, habitat and distribution of all the animals. The B.Sc. Zoology course is premeditated to introduce students to the study of zoology at the organismal and organ function levels. The theoretical part of the program deals with the general principles of classical as well as modern zoology. The program provides the student with an introduction to the recent advances in zoology in the areas of systematic, evolution, reproduction, development, animal diversity, biochemistry, cytology and animal ecology. This course is offered for candidates who are interested in the study of animals.

The minimum time required to complete the course is three years'

There are numerous career opportunities for candidates completing their B.Sc, M.Sc and Ph.D. in Zoology in public and private sector. Candidates may find jobs as Animal Behaviourist, Conservationist, Wildlife Biologist, Zoo Curator, Wildlife Educator, Zoology faculty etc.

PROGRAM OUTCOME FOR BACHELOR OF SCIENCE IN ZOOLOGY:

After successful completion of B.Sc Zoology, the student will be able to:

1. The students are expected to acquire the knowledge of animal science, natural phenomenon, manipulation of nature & environment by man.
2. Understanding the scientific terms, concepts, facts, phenomena& their interrelationships.
3. Applications of the knowledge.
4. To develop skills in practical work, experiments & laboratory materials, instruments.
5. To develop interests in the subject & scientific hobbies.
6. To develop scientific attitude which is the major objective. This makes the students open minded, critical observations, curiosity, thinking etc.
7. Abilities to apply scientific methods, collection of scientific data, problem solving, organize science exhibitions, clubs etc.
8. Appreciation of the subject, contributions of scientists, scientific methods scientific programs etc.
9. Contributes the knowledge for Nation building.
10. Develop ability in application of the acquired knowledge to improve applied zoology to make the Nation self-reliant and sufficient.
11. Develops empathy and love towards the animals

COURSE OUTCOMES FOR BACHELOR OF SCIENCE FIRST YEAR IN ZOOLOGY (BSc-I):

After successfully completing this course, students will be able to:

1. Understand the Animal diversity around us.
2. Understand the underlying principles of classification of animals.
3. Understand the differences and similarities in the various aspects of classification.
4. Classify invertebrates and able to understand the possible group of the invertebrate observed in nature.
5. Understand the importance of cell as a structural and functional unit of life.
6. To understand life cycle of insect vectors such as mosquito, Housefly, flea
7. Interaction of insect vectors with humans and spread of diseases.
8. Managements and control of insect vector and vector born diseases.
9. Mendelian and non- Mendelian inheritance.
10. Understanding of basic concepts of genetics and laws of inheritance.
11. Concept behind genetic disorder, gene mutations- various causes associated with inborn errors of metabolism.
12. Theories of evolution and knowledge of evolution of species
13. Knowledge about eras and population genetics.

COURSE OUTCOMES FOR BACHELOR OF SCIENCE SECOND YEAR IN ZOOLOGY (BSc-II):

After successfully completing this course, students will be able to:

1. Students will understand the classification, structure, function and biology of chordates of different taxonomic classes.
2. Classify phylum Protochordates to Mammalia.
3. Know the origin of chordate, general descriptions of Pisces, Amphibian, Reptilia, Aves and Mammals.
4. Define the basic terms in biochemistry.
5. Explain the structure, functions and reactions of the various biomolecules.
6. Make students aware of natural resources and environment.
7. Identify starch, proteins and carbohydrates by qualitative test
8. Familiar with the macromolecules like carbohydrates, oils, fats, amino acids and proteins their structure and overall role in cell metabolism, enzymes and their mechanism of action
9. Describe the structural characteristics, functional properties and regulation of enzymes
10. Students learn the concepts of endocrine systems and homeostasis
11. Acquire knowledge of Host parasite relationship.
12. Understand the transmission and Control of diseases such as Tuberculosis, Typhoid, Rickettsia and Spirochetes.
13. Acquire knowledge of Poultry farming.

14. Describe reproductive System and abnormalities of Human Sex Development.
15. Describe Reproductive Endocrine Disorders in Male and Female
16. Understand reproductive cycles in rat and human and their regulation.
17. Understand mechanism of parturition and its hormonal regulation, Lactation and its regulation.
18. Understand Explain Infertility in male and female and assisted Reproductive Technology
19. Understand the modern contraceptive measures in family planning.

COURSE OUTCOMES FOR BACHELOR OF SCIENCE THIRD YEAR IN ZOOLOGY(BSc-III):

After successfully completing this course, students will be able to:

1. Understand comparative account of the different vertebrate systems.
2. Understand the pattern of vertebrate evolution, organization and functions of various systems.
3. Explain DNA structure, the Central dogma of molecular biology.
4. Illustrate the mechanism of replication, transcription and translation.
5. Understand Histo-chemical staining techniques and the procedure of preparing permanent histological slides.
6. Understand Aquatic Biomes such as freshwater ecosystem and Estuaries. This understanding will make you capable of describing and explaining both biological interaction processes and their importance to ecosystems.
7. Understand the structure, functions and abnormalities of endocrine glands.
8. Explain the principles and process of fertilization and cleavage.
9. Develop critical understanding how a single-celled fertilized egg becomes an embryo and then a fully formed adult by going through three important processes of cell division, cell differentiation and morphogenesis.
10. Describe basic concept of immunology.
11. Understand how does the immune system distinguish self from non-self
12. Understand the culture techniques of prawn, pearl and fish.
13. Understand silkworms rearing and their products.
14. Understand the Bee keeping equipments and apiary management.
15. Understand dairy animals' management, the breeds and diseases of goats and learn the testing of egg and milk quality.
16. Understand the morphology, life cycle, diseases caused by insect vectors.
17. Know about symptoms and treatment of diseases caused by insect vectors.
18. Fundamental understanding of insect pathology.
19. Understand the Histology of mammalian organs.