Course Outcomes and Programme Specific Outcomes for B.Sc Zoology Degree Course

S K Porwal College of Arts and Science and Commerce, Kamptee.

First Semester

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

CO1. Familiar with the non-chordate world that surrounds us.

CO2. Able to appreciate the process of evolution (unicellular cells to complex, multicellular organisms)

CO3. Able to identify the invertebrates and classify them up to the class level with the basis of systematic

CO4. Understand the basis of life processes in the non-chordates and recognize the economically important invertebrate fauna.

Paper – II : Environmental Biology

CO1. Understanding on the basic theories and principles of ecology.

CO2. I earn current environmental issues based on ecological principles.

CO3. Gain critical understanding on human influence on environment

CO4 Positive attitude towards Biodiversity conservation.

Practicals :- Paper I and II

CO1. Experience in anatomy through simple ICT dissections

CO2 Aware about economically important specimen (preserved)

CO3. Familiar with Scientific method

CO4 Recognise the importance of conservation

Second Semester

Paper – III : Life and Diversity of Animals – Nonchordates (Arthropoda to Hemichordata)

CO1. Familiar with the non-chordate world that surrounds us.

CO2. Able to appreciate the process of evolution (unicellular cells to complex, multicellular organisms)

CO3. Able to identify the invertebrates and classify them up to the class level with the basis of systematic

CO4. Understand the basis of life processes in the non-chordates and recognize the economically important invertebrate fauna.

Paper – IV: Cell Biology

CO1. Develop deeper understanding of what life is and how it functions at cellular level.

CO2. Describe cellular membrane structure and function, fine structure and function of cell organelles.

CO3.Perform a variety of molecular and cellular biology techniques

Practicals :- Paper III and IV

CO1. Experience in anatomy through simple ICT dissections

CO2.Aware about economically important specimen (preserved)

CO3. Familiar with Scientific method

Third Semester

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

CO1.Describe the diversity in form, structure and habits of vertebrates

CO2. Explain general characteristics and classification of different classes of vertebrates

CO3. Experience in anatomy through simple ICT dissections

Paper – VI : Genetics

CO1.Appreciate the contribution of great scientists

CO2.Distinguish Classical Genetics and Molecular Genetics

CO4.Familiar with the tools and techniques of Genetics

Practicals :- Paper V and VI

CO1. Experience in anatomy through simple ICT dissections

CO2.Aware about economically important specimen (preserved)

CO3. Familiar with Scientific method

CO4. Ability to observe chromosomal arrangements during cell division

CO5.Distinguish different chromosomal aberrations in man

Fourth Semester

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

CO1. Inculcate in the student a fascination for nature and learn the bionomics of vertebrates.

CO2.Learn the evolution, hierarchy and classification of different classes of chordates

CO3. Get an overview of the morphology and physiology of typical examples.

CO4.Familarise the adaptations and economic importance of specific vertebrates.

Paper - VIII : Molecular Biology and Immunology

CO1. Understanding on the details of the basic unit of life at the molecular level.

CO2 Explain the fine structure and functions of cell organelles.

CO3. Introduce the new developments in molecular biology and its implications in human welfare.

CO4. Expose the learners to the emerging field of research in Molecular Biology

CO5.Appreciate the contribution of great immunologists

CO6.Distinguish Innate immunity and Acquired Immunity

CO7.Understand the importance of Immune system

Practicals :- Paper VII and VIII

CO1.Handling of Lab Instruments and Equipments

CO2.Understand the importance of Bio molecules

CO3. Understand the working principle of Lab Instruments and equipments.

CO4 .Ability to perform routine blood analysis

CO5.Develop skill in simple biochemical laboratory procedures

Fifth Semester

Paper - IX : General Mammalian Physiology –I

CO1.Understand the function of various systems

CO2.Apply the knowledge to lead a healthy life

CO3.Familiar with various biochemical pathways

CO4. Compare the functioning of organ systems across the animal world.

CO5. Learn more about human physiology and anatomy.

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

CO1. Identify various methodology and perspectives of applied branches of zoology for the possibilities of self-employment.

CO2. Learn the basic principles involved in the culture and breeding of common edible and ornamental fishes of India and the art of aquarium keeping.

CO3.Aware the economic importance of invertebrates with the special reference to insect pest and their control.

Practicals :- Paper IX and X

CO1. Experience in anatomy through simple ICT dissections

CO2. Familiarize organ system.

CO3.Aware about the structure and function of each system in the human body.

CO4. Ability to carry out routine clinical analysis of blood and urine

CO5.An understanding of the potential roles of biological research in aquaculture (diseases, nutrition, parasitology,

CO6.Knowledge of the diversity and research needs of local fisheries and aquaculture

CO7.Knowledge of fish harvesting techniques and selected research methods

CO8.Aware about economically important specimen (preserved)

CO9.To be able to examine insects deeply within a biological level of analysis and compare strategies used by different groups

Sixth Semester

Paper -XI : General Mammalian Physiology – II

CO1. Familiarize students on the physiology of their own body and urge them to take precautionary measures to safeguard their health.

CO2.Aware about the structure and function of each system in the human body.

CO3.Describe common physiological disorders, syndromes and diseases.

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

CO1. Understand the working principle of Lab Instruments and equipments

CO2. Understand the Histology, Histochemistry and Staining Techniques.

CO3.Understand the applications of Biotechnology

CO4.Familiar with the tools and techniques of Biotechnology

CO5.Familiar with Digital knowledge

CO6.Apply the knowledge to collect various Biological data

CO7.Demonstrate an understanding of the central concepts of modern statistical theory
CO8.Select from, use, and interpret results of, the principal methods of statistical inference and design

Practicals :- Paper XI and XII

CO1. Experience in anatomy through simple ICT dissections

CO2. Familiarize organ system specialiy Endocrine system.

CO3.Aware about the structure and function of each system in the human body.

CO4.Familiarise knowledge of conventional biotechnological procedures

CO5.Recognise the importance of various databases

CO6.Skill in observing and to some extent in analysing various Biological Data

CO7.Introduce the commonly used computational, statistical and analytical approaches to post genomic analysis and make meaningful predictions

Program specific Outcomes:

PSO1.Identify and list out common animals

PSO2.Explain various physiological changes in our bodies

PSO3.Analyze the impact of environment on our bodies

PSO4.Understand various genetic abnormalities

PSO5.Develop respect for nature

PSO6.Explain the role and impact of different environmental conservation programmes

PSO7.Identify animals beneficial to humans

PSO8.Identify various potential risk factors to health of humans

PSO9.Explain the importance of genetic engineering

PSO10. Use tools of information technology for all activities related to zoology

PO11. Enable the learners to take certification of Bachelor's degree in Zoology.

Principal
S.K.P. College Kamptee

SETH KESARIMAL PORWAL COLLEGE OF ARTS & SCIENCE & COMMERCE
S.K.P.
KAMPTEE
441001

Nitin P Meshram
Dept. of Zoology
Seth Kesarimal Porwal
College of Arts and Science
and Commerce, Kamptee