2019 Admission Onwards (BSc Zoology)

Programme Outcomes

PO 1.Critical Thinking:

1. Acquire the ability to apply the basic tenets of logic and science to thoughts, actions and interventions.

2. Develop the ability to chart out a progressive direction for actions and interventions by learning to recognize the presence of hegemonic ideology within certain dominant notions.

3. Develop self-critical abilities and also the ability to view positions, problems and social issues from plural perspectives.

PO 2.Effective Citizenship:

1. Learn to participate in nation-building by adhering to the principles of sovereignty of the nation, socialism, secularism, democracy and the values that guide a republic.

2. Develop and practice gender-sensitive attitudes, environmental awareness, the ability to understand and resist various kinds of discriminations and empathetic social awareness about various kinds of marginalization.

3. Internalize certain highlights of the nation's and region's history. Especially of the freedom movement, the renaissance within native societies and the project of modernization of the postcolonial society.

PO 3.Effective Communication:

1. Acquire the ability to speak, write, read and listen clearly in person and through electronic media in both English and in one Modern Indian Language
2. Learn to articulate analysis, synthesis, and evaluation of situations and themes in a well-informed manner.
3. Generate hypothesis and articulate assent or dissent by employing both reason and creative thinking.

PO 4.Interdisciplinarity:

1. Perceive knowledge as an organic comprehensive, interrelated and integrated faculty of the human mind.

2. Understand the issues of environmental contexts and sustainable development as a basic interdisciplinary concern of all disciplines.

3. Develop aesthetic, social, humanistic and artistic sensibilities for problem-solving and evolving a comprehensive perspective.

Programme Specific Outcomes

PSO1: Skill development for the proper identification, naming and classification of life forms especially animals.

PSO2: Acquisition of knowledge on the structure, life cycle and life processes that exist among animal diversity through certain model organism studies.

PSO3: Understanding of various interactions that exist among plants animals and microbes; to develop curiosity and love on the dynamicity of nature.

PSO4: Understanding of the major elements of variation that exist in the living world through comparative morphological and anatomical study.

PSO5: Ability to explain diversity and evolution based on the empirical evidence in Morphology, Anatomy, Embryology, Physiology, Biochemistry, Molecular Biology and Life history.

PSO6: Skill development in the observation and study of nature, biological techniques and scientific investigation.

PSO7: Making aware of the scientific and technological advancements in the fields of Information and Communication, Biotechnology and Molecular Biology for further learning and research.

PSO8: Internalization of the concept of conservation and evolution through the channel of the spirit of inquiry.

Course Outcome

Sl. No.	Name of Course (paper)	Outcomes
Zoology Core Course		
1	Zoology Core Course-1 PROTISTA AND NONCHORDATA-I Code:1B01ZLG	**CO1.** To understand the basic methods in zoology and animal classification. **CO2.** Able to appreciate the process of evolution (unicellular cells to complex, multicellular organisms) **CO3**. Familiar with the protist and non-chordate world (from Phylum Porifera to Mesozoa) that surrounds us. **CO4.** Able to identify the invertebrates (from Phylum Porifera to Mesozoa) and classify them up to the class level with the basis of systematics **CO5**. Understand the basis of life processes in the non-chordates (from Phylum Porifera to Mesozoa) and recognize the economically important invertebrate fauna.
2	Zoology Core Course -2 NONCHORDATA- 2 Code: 2B02ZLG	**CO1.** Familiar with the non-chordate world (Coelomates - from Phylum Annelida to Hemichordata) that surrounds us. **CO2.** Able to identify the invertebrates (Coelomates - from Phylum Annelida to Hemichordata) and classify them up to the class level with the basis of systematics **CO3.** Understand the basis of life processes in the non-chordates (from Coelomates - from Phylum Annelida to Hemichordata) and recognize the economically important invertebrate fauna.
3	Zoology Core Course - 3 Chordata - I Code: 3B03ZLG	**CO1:** Understand the origin and evolutionary relationship in different subphyla of chordates. **CO2**: To understand the diversity of chordates (from urochordates to reptiles). **CO3**: Understand the unique characters of urochordates, cephalochordates and vertebrates

		CO4: Recognize the life functions of chordates (from urochordates to reptiles).
4	Zoology Core Course – 4 Chordata – II and Comparative Anatomy Code: 4B04ZLG	**CO1**: Understand the general and unique characteristics and classification of Aves and Mammals **CO2**: Understand the diversity and relation in the form and structure of chordates.
5	Zoology Core Course -5 EVOLUTION, ETHOLOGY AND RESEARCH METHODOLOGY Code: 5B05ZLG	**CO1**.Realise that the whole living system has a common ancestry and so all are related **CO2.** Realize the fundamental characteristics of science as a human enterprise **CO3**. Apply scientific methods in day to day life **CO4.** Able to design a research work on a topic
6	Zoology Core Course-6 ANIMAL PHYSIOLOGY Code: 5B06ZLG	**CO1**. Understand the function of various systems at cellular and system levels **CO2**. Understand the mechanisms that work to keep the body alive and functioning **CO3**. Apply the knowledge to lead a healthy life
7	Zoology Core Course -7 BIOCHEMISTRY AND BIOPHYSICS Code: 5B07ZLG	**CO1**. Understand the importance of Biomolecules. **CO2**. Familiar with various biochemical pathways **CO3**: Develop knowledge about equipment like microscopes, spectrophotometers, centrifuges etc
8	ZOOLOGY CORE COURSE 8 GENETICS Code: 5B08ZLG	**CO1**. Comprehensive and detailed understanding of the chemical basis of heredity. **CO2**. Understanding the role of genetics in evolution. **CO3**. The ability to evaluate conclusions that are based on genetic data.

		CO4. The ability to understand the results of genetic experimentation in animals.
9	ZOOLOGY CORE COURSE 9 CELL BIOLOGY, IMMUNOLOGY AND MICROBIOLOGY Code: 6B09ZLG	**CO1**. Structural and functional aspects of the basic unit of life i.e. cell concepts **CO2**. Gather basic concepts of Cell Biology along with various cellular functions **CO3**. Understand the basic concepts of immunity **CO4**. Understand the diversity of microbes and their use and harm
10	ZOOLOGY Core Course- 10 Code: 6B10ZLG MOLECULAR BIOLOGY & BIOINFORMATICS	**CO1**. Understand the importance of Biomolecules **CO2**. Familiar with various tools and applications of Bioinformatics.
11	ZOOLOGY Core Course- 11 Code: 6B 11 ZLG ENVIRONMENTAL SCIENCE	**CO1**. Able to describe the relationship between abiotic and biotic factors. **CO2**. Students are able to describe various biological interactions. **CO3**. Students are able to understand how a change in population affect the ecosystem
12	ZOOLOGY CORE COURSE 12 Code:6B12ZLG DEVELOPMENTAL BIOLOGY	**CO1**.Understand the major steps in embryological development. **CO2**. Understand the intricate mechanisms involved in the development of animals.
13	PRACTICAL- I (PROTISTA , NON CHORDATA AND CHORDATA) Code:4B 01 ZLG(P)	**CO1**.Understand the taxonomic diversity of animals and gain knowledge about morphological diversity, adaptations, variations and parallelisms. **CO2**. To get a total understanding of the anatomy of animals and the functioning of different systems.
14	Practical II Code: 6B02 ZLG(P)	**CO1**.Understand what heredity means, by analysing different genetic problems, genetic conditions and understand the unity of life. **CO2**. Understand the ultrastructure of cells and tissues and acquire the skill to view cells and tissues.

15	PRACTICAL III CODE: 6B03 ZLG(P) BIOCHEMISTRY, BIOPHYSICS, PHYSIOLOGY, BIOSTATISTICS, BIOINFORMATICS.	**CO1**.Learn how to analyse data and use that knowledge to make sense of the data generated from different experiments. **CO2**. Learn how to analyse biological samples **CO3.**Learn how to analyse bioinformatics data.
Complementary course		
17	1C01ZLG DIVERSITY OF LIFE I PROTISTANS & NON CHORDATES	**CO1**. Familiar with the non-chordate world that surrounds us. **CO2**. Able to identify the invertebrates and classify them up to the class level with the basis of systematics. **CO3**. Understand the basis of life processes in the non-chordates and recognize the economically important invertebrate fauna.
18	2C02ZLG DIVERSITY OF LIFE – II CHORDATE FORM AND FUNCTION	**CO1**: Understand the origin and evolutionary relationship in different subphyla of chordates. **CO2**: Understand the diversity of chordates **CO3**: Understand the unique characters of urochordates, cephalochordates and vertebrates **CO4:** Recognize life functions of chordates
19	Course Code:3CO3ZLG Animal physiology	**CO1**. Understand the function of various systems at cellular and system levels **CO2**. Understand the mechanisms that work to keep the body alive and functioning **CO3**. Apply the knowledge to lead a healthy life
	4C04ZLG MEDICAL ZOOLOGY	**CO1**:Understanding of the various causative organisms and factors and also how and what preventive measures can be adopted against these.
	4C05ZLG(P)	**CO1**.Understand the taxonomic diversity of animals and gain knowledge about morphological diversity, adaptations, variations and parallelisms.

		CO2. To get a total understanding of the anatomy of animals and the functioning of different systems. **CO3**.Understand the ultrastructure of cells and tissues and acquire the skill to view cells and tissues.
Open course		
	ZOOLOGY Generic Elective Course APICULTURE Code: 5D02ZLG or ZOOLOGY Generic Elective Course SERICULTURE Code : 5D03ZLG	**CO1**: Develop self-employment capabilities. **CO2:** Acquires scientific knowledge of profitable farming. **CO1**: Develop self-employment capabilities. **CO2**: Acquires scientific knowledge of sericulture