BACHELOR OF SCIENCE (HONOURS) MAJOR IN ZOOLOGY
Course Outcome and Program Outcome for Semester I & II under CCFUP, 2023 & NEP, 2020

Sem	Paper	Course Outcome	Program Output
1	**MJ 1 T:** Systematics and Diversity of Life-Protists to Chordates	The course guides students through the incredible diversity of living forms, from simple to complex and highlights how the complexity of structure and function increases along the taxonomic hierarchy. After successfully completing this course, the students will be able to: 1. Develop understanding on the diversity of life with regard to protists, non-chordates and chordates. Group animals on the basis of their morphological characteristics/ structures.	1. A student having Zoology as a major subject will be able to understand the vastness of the diversity of animals. Although, it is not possible to know each and every species, they will understand the utility of classification through study of systematics. 2. They will be able to understand the origin & evolution of life and can identify and classify different chordate and non-chordate animals. 3. The different cell types of different animals with basic knowledge of physiology will enhance the understanding level of adaptation. 4. They will be more concerned about the recent environmental problems, and can understand the importance of biotechnology as an applied field from the study of genetics and developmental biology. 5. Beekeeping and aquarium keeping would provide an adequate knowledge to establish a sustainable beekeeping cottage industry and aquarium keeping industry. Therefore, there is a high opportunity of development of entrepreneurship in this sector. 6. The scope of the subject through research and applied field will be also
	MJ 1 P: Systematics and Diversity of Life-Protists to Chordates	2. Develop critical understanding how animals changed from a primitive cell to a collection of simple cells to form a complex body plan. 3. Examine the diversity and evolutionary history of a taxon through the construction of a basic phylogenetic/ cladistics tree. 4. Understand how morphological change due to change in environment helps drive evolution over a long period of time.	
	MI 1 T: Diversity of Life-Protists to Chordates	After successfully completing this course, the students will be able to: 1. Develop understanding on the diversity of life with regard to protists, non-chordates and chordates. Group animals on the basis of their morphological characteristics/ structures.	
	MI 1 P: Diversity of Life-Protists to Chordates	2. Develop critical understanding how animals changed from a primitive cell to a collection of simple cells to form a complex body plan. 3. Examine the diversity and evolutionary history of a taxon through the construction of a basic phylogenetic/ cladistics tree. 4. Understand how morphological change due to change in environment helps drive evolution over a long period of time.	
	SEC 1 Skill enhancement courses Apiculture	Students gain knowledge about: 1. Importance of beekeeping. 2. Prerequisite of beekeeping industry; Advance knowledge of bee-farm management and disease control of bee worm. 3. Use of honey, honey related food products, medicinal uses of honey, bee venom and other products.	

			open to them.
2	**MJ 2 T:** Cell Biology	The course provides a detailed insight into basic concepts of cellular structure and function. It also gives an account of the complex regulatory mechanisms that control cell function After successfully completing this course, the students will be able to 1. Understand the functioning of nucleus and extra nuclear organelles and understand the intricate cellular mechanisms involved. ¬ 2. Acquire the detailed knowledge of different pathways related to cell signalling and apoptosis thus enabling them to understand the anomalies in cancer. 3. Develop an understanding on how cells work in healthy and diseased states and to give a 'health forecast' by analyzing the genetic database and cell information. 4. Get new avenues of joining research in areas such as genetic engineering of cells, cloning, vaccines development, human fertility programme, organ transplant, etc.	
	MJ 2 P: Cell Biology		
	MI 2 T: Insect Vectors and Diseases MI 2 P: Insect Vectors and Diseases	The course provides an insight into the common vector-borne diseases, their etiology, role of vectors in their spread, host- parasite relationship and finally the strategies to manage these vectors. After successfully completing this course, the students will be able to: 1. Develop awareness about the causative agents and control measures of many commonly occurring diseases. 2. Develop understanding about the favourable breeding conditions for the vectors. 3. Devise strategies to manage the vectors population below threshold levels, public health importance. 4. Undertake measures or start awareness programmes for maintenance of hygienic conditions, avoidance of contact from vector, destruction of breeding spots in the vicinity of houses and cattle shed by public health education campaign.	
	SEC 2 Skill enhancement courses Aquarium fish keeping	The course provides practical knowledge for sustainable ornamental fish farming and will guide them to establish a large-scale aquarium fish farm as a cottage industry and to develop entrepreneurship in fish sector. This course will provide knowledge about: 1. Indigenous and exotic ornamental fishes. 2. Prerequisite in aquarium keeping; the laws around aquarium keeping. 3. Ornamental fish health management practice. 4. Provide field exposure and develop entrepreneurship in aquarium keeping.	