



## Department: - B.Sc. (Zoology)

### Bachelor of Science Programme Outcomes (POs)

**PO1: Knowledge:-** Acquire the knowledge with fact and recognize the underlying ideas, guiding principles, mathematical formulations, experimental results, and scientific theories relating to physics, chemistry, mathematics, zoology and botany and other program-related subjects.

**PO2: Skills:-** Become proficient with using scientific methods, skills of observation, and the ability to derive logical conclusions from scientific experiments.

**PO3: Modern Tools Usage:-** Utilize cutting-edge devices, tools, and lab techniques to conduct experiments and create computer programmes in many languages.

**PO4: Creativity & Analysis: -** Demonstrate in-depth analytical and critical thinking skills to recognize, frame, and resolve engineering and science challenges that exist in the actual world.

**PO5: Communication: -** Strengthen written and verbal communication skills to effectively communicate design, analysis, and research findings.

**PO6: Ethics & Environment: -** Incorporate ethical, moral, and social ideals into daily living and improve the future, raise public knowledge about the environment and promote sustainability.

**PO7: Individual & Team Work:-** Function effectively as an individual and take the lead in a variety of field-based situations involving science, technology, and society at large.

**PO8: Self-directed and Life-Long learning: -** Possibility of being self-driven, which involves paying attention to ideas and goals throughout one's life in order to explore, learn, and acquire new abilities in order to improve one's quality of life and sense of worth.



## Course Outcomes (CO)

### SEMESTER-I

**COURSE CODE: USZO101****COURSE NAME: Wonders of the Animal World**

After successful completion of this course, students will be able to:	
CO-1	Curiosity will be ignited in the minds of learners, to know more about the fascinating world of animals which would enhance their interest and love for the subject of Zoology.
CO-2	Learners would appreciate the treasure of Biodiversity, its importance and hence would contribute their best for its conservation.
CO-3	Minds of learners would be impulse to think differently and would be encouraged to express their original crude ideas from the field of biological sciences.

**COURSE CODE: USZO102****COURSE NAME: INSTRUMENTATION and BIOTECHNOLOGY**

After successful completion of this course, students will be able to:	
CO-1	Learners would work safely in the laboratory and avoid occurrence of accidents (mishaps) which will boost their scholastic performance and economy in use of materials/chemicals during practical sessions.
CO-2	Learners would understand recent advances in the subject and their applications for the betterment of mankind; and that the young minds would be tuned to think out of the box.
CO-3	Students will be skilled to select and operate suitable instruments for the studies of different components of Zoology of this course and also of higher classes including research.

**SEMESTER-II****COURSE CODE: USZO201****COURSE NAME: Ecology and Wildlife Management**

After successful completion of this course, students will be able to:	
CO-1	The learners would study about the nature of the animal population, specific factors affecting its growth and its impact on the population of other life forms.
CO-2	Learners will grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment and will lead to better understanding about implications of loss of fauna specifically on human beings, erupting a spur of desire for conservation of all flora and fauna.
CO-3	Learners would be inspired to choose career options in the field of wildlife conservation, research, photography and ecotourism.

**COURSE CODE: USZO202****COURSE NAME: HYGIENE AND COMMON DISEASES**

After successful completion of this course, students will be able to:	
CO-1	Healthy dietary habits would be inculcated in the lifestyle of learners in order to prevent risk of developing health hazards in the younger generation due to faulty eating habits.
CO-2	Promoting optimum conservation of water, encouragement for maintaining adequate personal hygiene, optimum use of electronic gadgets, avoiding addiction, thus facilitating achievement of the goal of healthy young India in true sense.
CO-3	Learners will be able to promptly recognize stress related problems at initial stages and would be able to adopt relevant solutions which would lead to a psychologically strong mind set promoting positive attitude important for academics and would be able to acquire knowledge of cause, symptoms and precautions of infectious diseases.

**SEMESTER-III****COURSE CODE: USZO301****COURSE NAME: Genetics**

After successful completion of this course, students will be able to:	
CO-1	Learners would comprehend and apply the principles of inheritance to study heredity.
CO-2	Learners will understand the concept of multiple alleles, linkage and crossing over.
CO-3	Learner will comprehend the structure of chromosomes and its types.
CO-4	Learners will understand the mechanisms of sex determination.
CO-5	Learners would be able to correlate the disorders linked to a particular sex chromosome.

**COURSE CODE: USZO302****COURSE NAME: Animal Physiology**

After successful completion of this course, students will be able to:	
CO-1	Learner would understand the increasing complexity of nutritional, excretory and osmoregulatory physiology in evolutionary hierarchy
CO-2	Learners would be able to correlate the habit and habitat with nutritional, excretory and osmoregulatory structures.
CO-3	Learners would understand the increasing complexity of respiratory and circulatory physiology in evolutionary hierarchy.
CO-4	Learners will be able to correlate the habit and habitat of animals with respiratory and circulatory organs.
CO-5	Learner would understand the process of control and coordination by nervous and endocrine regulation

**COURSE CODE: USZOE1303 (ELECTIVE 1)****COURSE NAME: Applied Zoology**

After successful completion of this course, students will be able to:	
CO-1	Learners would gain insight into different types of animal behaviour and their role in biological adaptations.
CO-2	Learners would be sensitized to the feelings which are instrumental in social behaviour.
CO-3	Learners would understand the general epidemiological aspects of parasites that affect humans and take simple preventive measures for the same.
CO-4	Learners would comprehend the life cycle of specific parasites, the symptoms of the disease and its treatment.
CO-5	Learner would gain knowledge on animals useful to mankind and the means to make the most of it.

**SEMESTER-IV****COURSE CODE: USZO401****COURSE NAME: Evolution and Research Methodology**

After successful completion of this course, students will be able to:	
CO-1	Learner will gain insights into the origin of life.
CO-2	Learner will analyze and critically view the different theories of evolution
CO-3	Learner would understand the forces that cause evolutionary changes in natural populations
CO-4	Learner would comprehend the mechanisms of speciation
CO-5	Learner will be able to distinguish between microevolution, macroevolution and megaevolution

**COURSE CODE: USZO402****COURSE NAME: Cell Ultrastructure and Biomolecules**

After successful completion of this course, students will be able to:	
CO-1	Learner would acquire insight into the composition of the transport mechanisms adopted by the cell and its organelles for its maintenance and composition of cell.
CO-2	Learners would appreciate the intricacy of the endomembrane system.
CO-3	Learner would understand the interlinking of endomembrane system for functioning of cell
CO-4	The learner will realize the importance of biomolecules and their clinical significance
CO-5	The learner will understand the importance of Vitamins and diseases caused by its deficiency.

**COURSE CODE: USZOE1 403****COURSE NAME: Reproduction, Embryology and Pollution**

After successful completion of this course, students will be able to:	
CO-1	Learners will be able to understand and compare the different types of eggs and sperms.
CO-2	Learner will be able to understand and compare the different pre- embryonic stages
CO-3	Learners will be able to understand human reproductive physiology
CO-4	Learners will become familiar with advances in ART and related ethical issues.
CO-5	The learners will be sensitized about the adverse effects of pollution and measures to control it.