



SPC Government College
Beawer Road, Ajmer-305001



Program Outcomes of Zoology

Program Outcomes of M.Sc. Zoology

Inculcate critical thinking to carry out scientific investigation objectively:-

- Equip the student with skills to analyze problems, formulate a hypothesis, evaluate and validate results, and draw reasonable conclusions.
- Prepare students for pursuing research or careers in industry in Animal Sciences and applied fields.
- Prepare students for pursuing teaching careers in Schools, Colleges and Universities.
- Imbibe effective scientific and/or technical communication in both oral and writing.
- Continue to acquire relevant knowledge and skills appropriate to professional activities and demonstrate the highest standards of ethical issues in animal sciences.

Understanding of the fundamental theories of the living world and capability of developing ideas based on them:-

- Inculcate objective reasoning.
- Prepare and motivate students for research studies in Zoology and related fields.
- Provide knowledge of a wide range of scientific techniques and application of methods/tools in related fields.
- Provide advanced knowledge on topics in latest developments in the fields of Animal Sciences, empowering the students to pursue higher degrees at reputed academic institutions.

1. Students will understand the structures and purposes of basic components of prokaryotic and eukaryotic cells, especially macromolecules, membranes, and organelles
2. Students will understand how these cellular components are used to generate and utilize energy in cells
3. Students will understand the cellular components underlying mitotic cell division.
4. Students will apply their knowledge of cell biology to selected examples of changes or losses in cell function. These can include responses to environmental or physiological changes, or alterations of cell function brought about by mutation.

Programme Specific Outcome

PSO 1 :

Recall the history of cytology and draw the structure of cell organelles and locate its parts along with functions site specific recombination and its applications gene regulation, concept of mobile genetic elements and applications, concept of gene mapping, molecular diagnosis of genetic disorders.

Understand the role and principles of operation of different types of protected areas; understand the opportunities and challenges surrounding community-based conservation; protein synthesis & chaperon, cell cycle & cancer, concept of apoptosis, organization of mt-dna. Immunological concept and latest technology

Explain and properly apply the scientific method by developing valid hypotheses, designing experiments, gathering relevant

data using current technology, and interpreting quantitative and qualitative data.

Understand the role and principles of operation of different types of protected areas; understand the opportunities and challenges surrounding community-based conservation;

PSO 2

Elucidating the role of maintenance, support, control and development systems in identifying non-chordates. Understanding the co-relationship between structure and function in the non-chordate systems. Understanding Concept of biosynthesis, bioenergetics, metabolism and biotransformation of individual biomolecules Skills gained. Understanding the corelationship that exists between structure and function of individual biomolecules. Understanding the bioenergetics and metabolism of different biomolecules. Competency developed In-depth analytical knowledge on animal physiology such as adaptation, respiration, circulation, excretion, osmoregulation, thermoregulation. In-depth knowledge in gamete biology and subsequent development of embryo after fertilization.

PSO 3

Relationships of the Chordates with such other animal groups/Phyla. Interlinking different strata of organizations of the Chordate Tissue/Organ systems. Facility in solving real life problems by thinking logically and outside of box.

PSO 4

Statistics is the language of the uncertainties riddled modern information age. This program is a compact combination of detailed courses of Statistics and adequate amount of courses on Computer Science, Mathematics and Operations research to complement and offer diversification after the completion of program. Identify behavioural patterns and use of pheromones.

ELECTIVE PAPERS

Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology . Analyse the relationships among animals, plants and microbes Perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Cell biology, Genetics, Applied Zoology, Clinical science, tools and techniques of Zoology, Toxicology, Entomology, Nematology Sericulture, Biochemistry, Fish biology, Animal biotechnology, Immunology and research methodology .Understand the applications of biological sciences in Apiculture, Aquaculture, Agriculture and Medicine .

Gains knowledge about research methodologies, effective communication and skills of problem solving methods 6. PSO6. Contributes the knowledge for Nation building.