

DEPARTMENT OF ZOOLOGY

TEACHING FACULTY

Professors

Dr. Satwinder Kaur, Ph.D.(GNDU, Amritsar)
Dr. Anish Dua, Ph.D.(PU, Chandigarh)
Dr. Arvinder Kaur, Ph.D.(PAU, Ludhiana) **(Head)**
Dr. Sanehdeep Kaur, Ph.D.(PAU, Ludhiana)

Assistant Professors

Dr. Pooja Chadha, Ph.D.(KU,
Kurukshetra)
Dr. Puja Ohri, Ph.D.(GNDU, Amritsar)

Courses offered

- [M.Sc.](#)
- Ph.D.

Course Detail : M.Sc. Zoology

Distribution of seats

Course Name	Duration (Years)	System	Total Seats	Reserved Categories			
				SC/ST	BC	RA	Others
M.Sc.	2	Semester	50	12	3	4	6

Eligibility

- Bachelor of Science in any science subjects (with zoology as one of the subjects) with at least 50% marks (45% for SC/ST) in aggregate.
- Any other examination recognized equivalent thereto.

Mode of Admission

Admission will be based on the basis of the entrance test conducted by the University.

Dates

a)	Fee deposit date in State Bank of Patiala (Any Branch)	05.06.2017 to 27.06.2017
b)	Last Date for Online application Form submission	07.06.2017 to 30.06.2017
c)	Entrance Test	11.07.2017 at 03.15 p.m. - 04.15 p.m.
d)	Admission Counseling	14.07.2017

Venue: New Lecture Theatre Complex, Near Bhai Gurdas Library

Contact No. Coordinator/Head 0183-2258802-09, 2450601-14. Ext. 3518

Fee (Approximate) Rs. 24060/- (1st Sem) Rs. 8500/- (2nd Sem)

Syllabus for Entrance Test

Important Note: The Entrance Test will be based on multiple choice questions. The paper will be of 100 marks and there will be no negative marking.

CELL BIOLOGY:- Principles of microscopy, Structure and functions of cell organelles, Plasma membrane, Endoplasmic reticulum, Mitochondria, Golgi complex, Ribosomes, Lysosomes, Centrosome and Nucleus. Cancer, Cellular basis of immunity.

ECOLOGY:- Ecosystem, Ecological factors, Biogeochemical cycles and concept of limiting factors. Ecological adaptations, Characteristics and regulation of population, Inter and Intra specific interactions, Ecological succession, Niche, Environmental pollution.

BIODIVERSITY:- Characteristics and type study of representative invertebrate and vertebrate groups.

Evolution :- Concepts, evidences and theories of Organic evolution, Origin of life, Speciation, Fossils: types and significance, Evolution of man, Migration & Parental care in Pisces, Origin and extinction of reptiles, Flight adaptations and bird migration, Adaptive radiations and dentition in mammals.

Biochemistry:- Carbohydrates, Proteins, Enzymes , Lipids and Nucleic acids, Metabolic pathways.

Animal Physiology:- Digestion, Respiration, Blood and Circulation, Excretion, Muscles, Neural integration, Behavior, Endocrine glands. **Reproduction**

Developmental Biology:- Fertilization, Parthenogenesis, Cleavage and its patterns, Determination, Differentiation, Development upto three germinal layers, Fate maps of chick and frog embryos, Foetal membranes, Mammalian placenta, Induction, Metamorphosis.

Genetics:- Modification of Mendelian ratios, Multiple alleles and factors, Linkage, Crossing over and recombination, Gene, Genetic code, Replication, Transcription, Translation, Mutations, Regulation of gene expression, Extranuclear inheritance, Population genetics, Genetic recombination and its applications, Evolution of genes.

Medical Zoology :- Important pathogenic bacteria, viruses, protozoans, helminths and arthropods.

Special Features

The Department of Zoology is well equipped for Post graduate level of teaching and research. The faculty members are currently pursuing research in the thrust area of Environmental monitoring and best ecological practices. Research is being carried out in the fields of Aquatic Ecology, Aquatic Toxicology, Insect pest control, Cytogenetics, Vermicomposting and Nematology. The Department is recognized under the DST-FIST and PURSE and UGC SAP Program.