

# Teaching

## Methods used in teaching UG and PG students

- (i) Computer aided instructions, LCD Projection
- (ii) Overhead Projector assisted teaching
- (iii) Seminars
- (iv) Regular Lectures
- (v) Lab work and demonstration
- (vi) Hands-on training

Several new experiments involving molecular and biochemical analyses have been introduced in B. Sc./M. Sc. classrooms. Some of the experiments are as follows:

- (i) Biochemical estimations of proteins, glucose, glycogen and enzymes.
- (ii) DNA isolation, agarose gel electrophoresis, gel documentation
- (iii) Protein extraction, Polyacrylamide gel electrophoresis
- (iv) DNA, protein and glycogen estimations by using spectrophotometer.
- (v) Bacterial culture work and cloning.
- (vi) Genetic experiments with *Drosophila melanogaster*
- (vii) Exposure to computers and Bioinformatics

# Courses

**The Department currently runs the following courses:**

**(A) B. Sc. (Three Years Programme)**

**(1) Subjects: Zoology, Botany and Chemistry**

**(2) Subjects: Genetics & Genomics, Botany and Chemistry**

**(B) M.Sc. Zoology  
(Two Years Programme/Four Semesters)**

## **B. Sc. Zoology**

**Subjects: Zoology, Botany and Chemistry**

### **List of Papers in Zoology**

#### **B. Sc. I**

- Paper I : Protozoa to Nematelminthes  
Paper II : Annelida to Echinodermata  
Paper III : Cell Biology, Genetics, Ecology & Adaptations

#### **B. Sc. II**

- Paper I : Chordata  
Paper II : Animal distribution, Evolution and Embryology  
Paper III : Physiology and Biochemistry

#### **B. Sc. III**

- Paper I : Applied and Economic Zoology  
Paper II : Evolutionary Biology, Physiological constraints, Biological Tools and Techniques, Biostatistics and Bioinformatics  
Paper III : Biotechnology, Microbiology and Immunology, Neurobiology and Behaviour, Pollution and Toxicology

## **B. Sc. Genetics & Genomics**

**Subjects: Genetics & Genomics, Botany and Chemistry**

### **List of Papers in Genetics & Genomics**

#### **B.Sc. I**

Paper I : Protozoa to Nematelminthes  
Paper II : Annelida to Echinodermata  
Paper III : Basics Genetics

**Practicals on Genetics & Animal diversity**

#### **B.Sc. II**

Paper I : Chordata  
Paper II : Advanced Genetics  
Paper III : Physiology and Biochemistry

**Practicals on Genetics & Biochemical techniques**

#### **B.Sc. III**

Paper I : Biostatistics, Bioinformatics, Bioinstrumentation  
Paper II : Population Genetics, Behavioral Genetics and Applied Molecular Genetics  
Paper III : Genomics and Proteomics

**Practicals on Advanced Genetics and Molecular techniques**

# **M.Sc. Zoology**

## **(Two Years Programme/Four Semesters)**

### **Semester - I**

- 401 Non-Chordata
- 402 Animal Physiology and Chronobiology
- 403 Biochemistry, Biotechnology and Molecular Biology
- 404 Quantitative Biology, Biosystematics and Bioinstrumentation  
PRACTICALS 'A' & 'B'

### **Semester II**

- 405 Chordata
- 406 Animal Behaviour and Evolutionary Biology
- 407 Environmental Biology and Toxicology
- 408 Cytogenetics and Developmental Biology  
PRACTICALS 'A' & 'B'

### **Semester III**

- 409 Comparative Endocrinology
- 410 Reproductive Physiology
- 411 Insect Ecology, morphology and physiology
- 412 Applied Entomology  
PRACTICALS 'A' & 'B'

### **Semester IV**

- 413 Morphology and Physiology of fishes
- 414 Fresh water, brackish water and Marine fisheries
- 415 General Parasitology and Immunology
- 416 Parasitology: Morphology and life cycles  
PRACTICALS 'A' & 'B'

