SMRJ Goverenment College, Siwani (Bhiwani)

(Affiliated to Chaudhary BansiLal University, Bhiwani)

Session: 2024-25 Department of Zoology

B.Sc. Life Sciences

Programme Outcomes (POs):

- To develop skills in graduate students to be able to acquire theoretical and practical knowledge in fundamentals of biology in respective disciplines of animals, microbes and environment.
- To inculcate ability to critical evaluate problems and apply lateral thinking and analytical skills for professional development.
- To create awareness on ethical issues, good laboratory practices and biosafety.
- To develop ability in youth for understanding basic scientific processes and effective skills.
- To prepare youth for career in teaching, industry, government organizations and self reliant entrepreneurship.
- To make students aware of natural resources, environment and sustainable utilization of resources.
- To provide learning experiences in students that instills deep interest in biological sciences for betterment of society.

Programme Specific Outcomes (PSOs):

- Students will gain knowledge to develop acquaintance of animal species around them and variations in life cycles, biology and their interactions with the environment.
- Students will also be apprised about likeness between the physiological processes at the cellular and organism level.
- Youth will be capable of using knowledge of the subject and analytical methods in identifying and solving various complex situations of living forms and environment taking into consideration their responsibilities and ethics.
- Teaching of subject will also develop youth who is aware of natural resources and their sustainable utilization.

 This program will also develop personnel who can be capable of doing Masters in the subject and can develop career as teacher, in industry or as entrepreneur in the realms of the subject.

B.Sc. (Zoology Semester I)

Course Type: CC-1, Credit: 4

Course Code: 24UN-ZOO-101

Name of course: Animal Diversity of Non-Chordates

Course Learning Outcomes (CLOs):

- Students will be able to describe unique characters and recognize life forms of phylum Protozoa to Hemichordates.
- Students will be capable of identifying the characters and classification of Non-Chordates.

B.Sc. (Zoology Semester II)

Course Type: CC-2, Credit: 4

Course Code: 24UN-ZOO-201

Name of course: Animal Diversity of Chordates

Course Learning Outcomes (CLOs):

- Students will be able to describe unique characters and recognize life functions of Urochordates.
- Students will be able to describe unique characters and recognize life functions of Pisces.
- Students will be able to describe unique characters and recognize life functions of Amphibians and Reptiles.
- Students will be able to describe unique characters and recognize life functions of Birds & Mammals.
- Students will be capable of identifying the characters and classification of Chordates.

B.Sc. (Zoology Semester III)

Course Type: CC-3, Credit: 4

Course Code: 24UN-ZOO-301

Name of course: Cell Biology and Animal Genetics

Course Learning Outcomes (CLOs):

 Students will be able to understand the nature and basic concept of Cell Biology and Genetics.

- Students will be able to apply the knowledge of internal structure of cell and their role in many metabolic functions of organisms.
- Students will be able to explain the concept of gene interactions, sex-linked inheritance and their role in medical sciences.
- Students will be able to conduct the morphometric analysis of chromosomes and demonstrate cell division.

B.Sc. (Zoology Semester IV)

Course Type: CC-4, Credit: 4

Course Code: 24UN-ZOO-401

Name of course: Biomolecules and Mammalian Physiology

Course Learning Outcomes (CLOs):

- Students will be able to understand and explain the mechanism that works to keep the human body functioning.
- Students will be able to explain the interactions and interdependence of physiological and biochemical processes.
- Students will be able to explain the mechanism of action of hormones and related molecules involved in various physiological processes.
- Students will be able to perform biological and analytical techniques in laboratories top explain biological activities.

B.Sc. (Zoology Semester V)

Course Type: DSE-1B, Credit: 3

Course Code: 20UZOO-504

Name of course: Aquaculture

Course Learning Outcomes (CLOs):

- Students will learn the scope, significance and practice of aquaculture.
- They will also be able to learn taxonomy and morphology of various fishes used in aquaculture.
- They will also be able to understand the mechanism of feeding, growth, digestion in fishes.

B.Sc. (Zoology Semester V)

Course Type: DSE-1B, Credit: 3

Course Code: 20UZOO-505

Name of course: Economic Zoology

Course Learning Outcomes (CLOs):

- Students will be able to understand the pathway of various disease infections.
- Students will be able to learn various economically important animals and their use in establishing their business.
- Students will be able to learn the techniques of poultry farming, animal husbandry and induced breeding in useful animals.

Incharge

(Dr. Pooja Rani)

Assistant Professor in Zoology

SMRJ Govt. College, Siwani (Bhiwani)