Govt. College for Women Parade Ground Jammu

An Autonomous College

NAAC Accredited "A" Grade

Learning Outcome-Based Curriculum Framework (LOCF) Syllabus for the Examination to be held in 17-18 and 18-19 UNDER CHOICE BASED CREDIT SYSTEM

Semester-1st: Animal DiversityUZOTC-101 (17-18).

Course Learning Outcome: Upon completion of the course, students will be able to:

- Distinguish between major phyla of animals through a demonstrated understanding of their taxonomic classification and diversity.
- Describe the distinguishing characteristics of all major phyla.
- Understand the fundamental differences among animal body plans and relate them to function, taxonomic classification, and evolutionary relationships among phyla.
- Illustrate lifecycles, structure, function and reasons for importance of few representative organisms from different groups of animals.
- Identify anatomical structures from prepared tissues.
- Observe living animals in the environment and relate observations to theory from the course.
- Recognize major animal phyla and animals on the basis of their external characteristics.

UG Semester-1st: Animal Diversity UZOTC-101 (18-19).

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UG Semester-2nd: Comparative anatomy and Developmental Biology of VertebratesUZOTC-201(17-18)

Course Learning Outcome: Upon completion of the course, students should be able to:

- Explain comparative account of the different vertebrate systems

- Understand the pattern of vertebrate evolution, organisation and functions of various systems.
- Learn the comparative account of integument, skeletal components, their functions and modifications in different vertebrates.
- Understand the evolution of heart, modification in aortic arches, structure of respiratory organs used in aquatic, terrestrial and aerial vertebrates; and digestive system and its anatomical specializations with respect to different diets and feeding habits.
- Learn the evolution of brain, sense organs and excretory organs to a complex, highly evolved form in mammals.
- Learn to analyze and critically evaluate the structure and functions of vertebrate systems, which helps them to discern the developmental, functional and evolutionary history of vertebrate species.
- Understand the importance of comparative vertebrate anatomy to discriminate human biology.

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B.Sc Semester-3rd: Physiology and Biochemistry UZOTC-301 (17-18).

Course Learning Outcome: The Paper deals with the concepts of Physiology and Biochemistry

- The paper acquaints the learners with the mechanisms of functioning of the various essential life processes in animals especially mammals.
- The paper also deals with the essential metabolic processes, their mechanisms and metabolic pathways.

- The paper also elaborates upon the structure and functioning of various organ systems in animals especially mammals.
- The paper also acquaints the students with concepts of reproductive processes and endocrine functioning in animals especially mammals.

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B.Sc Semester-3rd: Apiculture (SEC) UZOTS-301 (17-18)

Course Learning Outcome: The students will:

- Understand the common species, social organization, morphology and basic life cycle of honey bees.
- Learn about bee keeping tools and equipment's.
- Learn to manage beehives for honey production and pollination.
- Learn about Bee diseases and enemies.
- Learn to harvest and market honey.

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B.Sc. Semester-IV: Principles of Genetics and Evolutionary Biology UZOTC-401(17-18)

Course Learning Outcome: The paper includes principles of Genetics and Evolutionary Biology:

- The paper introduces students to different aspects of mitosis, meiosis, chromosome structure types and changes.

- The paper not only gives students fundamental concept of genetics but also gives them deep insight in understanding the concept of evolution.
- The paper also exposes the students to evolution of life through Lamarckism's Darwanisms and Neo-Darwanisims.
- The paper also deals with different evidences which support the distribution and idea of evolution.
- The study of population genetics and species concept help in understanding the mechanism of speciation.

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B.Sc. Semester-IV: Aquarium Fish Keeping UZOTS-401 (SEC)

Course Learning Outcome: The paper deals with Aquarium fish keeping and students can learn:

- Setting and maintenance of an aquarium
- Identification of different types Exotic and Endemic/Fresh and marine water fishes.
- Can recognise the morphology and nutritional requirements of different fish species.
- Match the appropriate and select the food diet according to the type of fish and
- Packing, transport and quarantine methods and trade regulation and laws related to aquarium fishes.

B.Sc. Semester-5th: Parasitology (17-18)

Course Learning Outcome: The students should be able to:

- Learn the scope, symbiotic relationships, parasitic relationships, adaptations and immunity.
- Learn the distribution of important parasitic infections.
- Describe the common parasitic diseases and life-threatening conditions caused by helminths and protozoans and life cycles of parasites of medical importance.
- Learn the principles of management for common parasitic diseases and life-threatening conditions.

- Outline methods of disease prevention

B.Sc. Semester-V. Public Health and Hygiene (SEC) (18-19)

Course Learning Outcome: The students should be able to

- Learn major nutritional deficiency diseases and get aware about major National Health policies.
- Understand about Communicable and non-communicable diseases, their causative agents, pathogenesis and their preventions.
- About mental health diseases like depressions.
- About drug addiction like smoking, alcoholism and their deaddiction.

B.Sc. Semester-5th: Applied Zoology (18-19)

Course Learning Outcome: The paper deals with varied Applied field of Zoology:

- Familiarizes the students with the scope and applications of Parasitology and study pf Protozoans and Helminth Parasites.
- The paper also sensitizes the students with the recent concept of Biotechnology and its role in animal welfare.
- The paper also deals with the aspects of animal husbandry including study of Economically important dairy cattle breeds and cattle diseases.
- The paper also acquaints the students with the management of poultry breads and poultry diseases.
- It also deals with the cultural practices among crop viots peas etc., and also helps the students to understand the induced breeding techniques.

B.Sc. Semester-6th: Economic Zoology (17-18)

Course Learning Outcome: The Paper Economic Zoology deals with:

- To familiarize with the value of studying various general practices, Principles and techniques in farming and rearing of animals in sericulture (silk worms) apiculture (honey bees) Aquaculture (fisheries, prawn culture, pearl culture), poultry (fowls) and cattle husbandry.
- Provides an insight into the relative usefulness of animals as human food.
- The course introduces the students to some important economic aspects of Zoology, a line which they may ultimately choose to develop for their self-employment.

B.Sc. Semester-6th: Aquatic Biology (18-19)

Course Learning Outcome: The Paper deals with the study of Aquatic Ecosystem both freshwater and Marine:

- Emphasis on the impact of physical and chemical factors on Aquatic ecosystems.
- The paper deals with the lotic and lentic water bodies with an emphasis on their flora and fauna.

- It helps the students to study the marine flora and fauna with special reference of sea weeds and to study the impact of oil spills on marine life.
- The paper deals with the anthropologic activities that leads to aquatic pollution and their management.
- The paper also acquaints the students with the management and conservation of aquatic resources.

B.Sc. Semester-6th: Sericulture (18-19)

Course Learning Outcome: The course will enable the students to understand the different types of silkworms and their races.

- To understand the biology of silkworms in general and biology of mulberry silkworm in particular.
- To understand the various diseases about the transmission and pathogenesis and various diseases effecting silkworms.
- To enable the students to acquaints themselves with the culturing practices/methods of silkworms.