DEPARTMENT OF ZOOLOGY

PROGRAMME OUTCOMES OF UNDERGRAGUATE PROGRAMMES (2021-2022 ONWARDS)

Name of the Programme: B.Sc ZOOLOGY	
PO1	Came to know the basic concept of biosystematics and procedure in taxonomy.
PO2	To impart basic knowledge of various disciplines of Zoology and General biology meant for a graduate and for higher studies
PO3	To inculcate interest in nature and its living creatures and in future they can diversify their interest in the field of photography as a career as NE India being the HUB of Biodiversity
PO4	Information and skill of advanced biological techniques for experimental purpose.
PO5	Acquire knowledge on the various aspects of life sciences, cell biology, genetics, taxonomy, physiology, applied zoology, general embryology and pubric health.
PO6	To make them understand the unity of life with the rich diversity of organisms and their ecological and their significances.
PO7	Acquire knowledge on the various aspects of life sciences, cell biology, genetics, taxonomy, physiology, applied zoology, general embryology and pubric health.
PO8	After the completion of the B.Sc degree there are various other options available for the science students.
PO9	After studying this program, students will be more equipped to learn and know about different biological systems, their coordination and control as well as evolution.
PO10	To impart awareness for the conservation of the biosphere

PROGRAMME SPECIFIC OUTCOMES OF UNDERGRAGUATE PROGRAMMES (2021-2022 ONWARDS)

Name of the Programme: B.Sc ZOOLOGY	
PSO1	To identify and understand vertebrate as well as invertebrate
PSO2	To explain physiological and biochemical activities and its impact on human bodies.
PSO3	To obtain knowledge in wildlife and can choose Wildlife Tourism as a career.
PSO4	Outcome Students enrolled in B.Sc. (Hons.) degree program in Zoology will study and acquire complete knowledge of disciplinary as well as allied biological sciences.
PSO5	At the end of graduation, they are likely to possess expertise which will provide them competitive advantage in pursuing higher studies from India or abroad;
PSO6	understood the applied biological sciences or economic zoology such as sericulture, Apiculture, aquaculture, Industrial microbiology, rDNA technology and
PSO7	To obtain knowledge in wildlife and can choose Wildlife Tourism as a career.
PSO8	To identify socio-economic animals it's beneficial to humans.
PSO9	understood the applied biological sciences or economic zoology such as sericulture, Apiculture, aquaculture, Industrial microbiology, rDNA technology and medicine for their career opportunities.

DEPARTMENT OF ZOOLOGY

PROGRAMME OUTCOMES OF POST GRADUATE PROGRAMMES (2020-2021 ONWARDS)

Name of the Programme: M.Sc Zoology		
	PO1	Students exhibits technical and scientific judgments related to their area of specialization and to general aspects of biology.
	PO2	Different modules enriched them in fundamental and advanced interdisciplinary knowledge and aspired to pursue academic, and medical and health-related professional careers.
	PO3	Students to develop their own interest, elective modules allow them to develop / select the specialization in various directions and methods of zoological research.
	PO4	Equip the learner to carry out original research in biology
	PO5	Aquire hands on training in the use of various tools and techniques suggested in the course..
	PO6	Develop skills to solve scientific problems with statistical formulas.
	PO7	Developed knowledge and understood of living organisms at several levels of Zoological and Biological organization from the molecular, through to cells and whole organisms and
	PO8	Understand and analyse the ecological and evolutionary significance of different taxa of animals.
	PO9	To analyse the mechanisms involved in life processes upto the molecular level

COURSE OUTCOMES OF UNDERGRADUATE PROGRAMMES (2021 ONWARDS)

Name of the Programme:B.Sc Zoology

Course Code	Course Title	Course Outcome	
		SEMESTER - I	
21UZO01	INVERTEBRATES	**CO1**	To explain classification of protozoa and diseases caused by them
		CO2	To classify Phylum Porifera with taxonomic Keys
		CO3	Know about some of the important and common protozoans, helrninthes of parasitic nature causing diseases in human beings.
		CO4	Came to know the basic concept of biosystematics and procedure in taxonomy.
		CO5	Understood the anatomy and physiology of invertebrate animals by demonstration.
		CO6	Describe the variety of invertebrate organisms and explain their evolutionary origin and diversification.
			SEMESTER-II
		CO1	To understand what the chordates
		CO2	To understand the taxonomic position of chordates.
		CO3	To understand different categories of chordates.

21UZO02	CHORDATA	CO4	To understand the general characters of chordates.
		CO5	To understands the level of organization in chordate subphylum.
		CO6	To understand the origin and evolutionary relationship in different subphylum of chordates.
		CO7	Came to knowing the rules of taxonomy and the principle of animal classification
21UZOP01	CORE PRACTICAL-I INVERTEBRATES AND CHORDATA	CO1	Came to know that internal skeletons and osteology of different bone structures.
		CO2	Understood the anatomy and physiology of invertebrate and chordates animals by dissection.
		CO3	Described the structural study and mounting of organs.
		CO4	Understood the diversity morphology, biological characters and taxonomical importance some selected museum specimens of different animal groups.
		CO5	Study of permanent slides & study of Protozoan's with particular reference to Amoeba, Paramecium, Ceratium, octiluca , Euglena, Plasmodium , Monocystis, Trypnosoma, Leishmania , Entamoeba Giardi, Hippocampus and Bat.
		CO6	Explain the basic aspects of structural and functional details of Invertebrates and chordata

SEMESTER-II			
21UZO03	CELL BIOLOGY	CO1	To understand what the cell biology are
		CO2	To understand the structures and purposes of basic components of prokaryotic and eukaryotic cells, especially macromolecules, membranes, and organelles
		CO3	To understand how these cellular components are used to generate and utilize energy in cells
		CO4	To understand the cellular components underlying mitotic cell division.
		CO5	To understand responses to environmental or physiological changes, or alterations of cell function brought about by mutation.
		CO6	To understand the process of cell division in both somatic and germ cell.
21UZOS01	VERMICULTURE AND VERMICOMPOSTING	CO1	The course is structured at the basic level for the benefit of the students coming from different discipline having broad scope for employability.
		CO2	In general soil earthworms, their characteristic features, occurrence, their influence on soil fertility and solid waste management are included.
		CO3	Vermicomposting technology broadly followed at the global level and some Indigenous methods, role of microbes in increasing the soil fertility by the action of earthworms, their advantages and limitations dealt.
		CO4	Role of microbes in worms and in decomposition is discussed
		CO5	Vermiculture products and their benefits in agriculture practice, economics of vermitechnology along with the practical difficulties are included.
		CO6	Students will be trained on how to maintain a small vermicompost bin as a simple method for converting the Kitchen waste.

21UZONM01	HUMAN HEALTH AND HYGIENE	CO1	Understand the classification of nutrients
		CO2	Gain knowledge on the intake of balanced diet and the significance of food
		CO3	List the common deficiency disorders, their causes, symptoms and recommended food sources
		CO4	Evaluate the importance of a balanced diet, understand the types of abuses and associated behavioural changes.
		CO5	know the causes for drug, tobacco and alcohol addiction and its effects on health, analyse the possible ways of de-addiction.
		CO6	Know about the diseases and disorders associated with lifestyle modification, explain the underlying cause and symptoms for diabetes, obesity, cancer and AIDS

SEMESTER-V

21UZO04	GENETICS	CO1	Be able to describe gene structure, expression and regulation.
		CO2	Be able to describe the chromosomal basis of inheritance and how alterations in chromosome number or structure may arise during mitosis and meiosis
		CO3	Be able to describe Mendelian and non-Mendelian modes of inheritance
		CO4	Understand how mutations can affect gene dosage and function
		CO5	Understand the clinical implications of phenomena such as incomplete penetrance, variation in expression, anticipation and new mutations
		CO6	e able to identify patients with, or at risk of, a genetic condition Be able to take a family history and construct and interpret a pedigree

21UZOS02	DAIRY SCIENCE	CO1	To explore the Farming of Dairy Breeds. To understand the methodology of construction of Dairy Farming
		CO2	To get employment in the Cooperative Milk Producers Union Limited and in private dairy product factories
		CO3	To provide knowledge to give them an opportunity and its socio-economic aspects
		CO4	To train and impart practical knowledge in clean milk production, processing of milk and preparation of milk products
		CO5	To Study of various diseases and disorders in Dairy breeds and First Aid Measures. To create the aware the students about the Cattle disease and its treatment
21UZOS03	AQUACULTURE	CO1	Get knowledge about the production of cultivable candidate fish species.
		CO2	To know the cultivable fish production for sustainable aquaculture farming.
		CO3	To know the basic principles of aquaculture farming.
		CO4	Apply practical knowledge into the aquaculture field to enhance production level.
		CO5	To study the microbial infective defence mechanism and their disease management.
		CO6	To acquire the knowledge about the water quality parameters.
21UZONM02	WILDLIFE MANAGEMENT	CO1	Know the basic concept and principles of Wildlife Management.
		CO2	Understand the Evaluation of Wild life habitat.
		CO3	Know population estimation

		CO4	Analyse Human – animal conflicts
		CO5	Realise Zoo"s Zoological Parks, Wildlife sanctuaries, National Parks and Tiger reserves
21UZ0P02	CORE PRACTICAL-II CELL BIOLOGY, GENETICS, VERMICULTURE & VERMICOMPOSTINGN & AQUACULTURE	CO1	Count blood cells by using hemocytometer. Observe living cells
		CO2	Identification of drosophila mutants. Study about Normal Karyotyping. Prepare and observe chromosomal arrangements during cell division.
		CO3	To compost in a limited space and describe the decomposing process.They will also turn towards organic farming, Will help to maintain the environment pollution free and Will get the knowledge of biodiversity of local earthworms.
		CO4	To successfully run a dairy farm enterprise by developing competencies concerning the selection and breeding of dairy cattle, management of animals of different physiological status, nutrition, health, housing and feeding.
		CO5	The knowledge required to to design, execute, and analyze the results of genetic experimentation in animal and plant model systemsTo provide hands-on experiences with the principles and practices essential in the production of clean milk for personal economic development. To give the students the necessary basic information about fishery and aquaculture.
			SEMESTER -V
		CO1	Integrate our understanding of physiology across levels, from molecular to organismal, and understand interactions between different physiological systems.
		CO2	Understood about the composition of food and mechanism of digestion absorption and assimilation.

21UZO05	ANIMAL PHYSIOLOGY	CO3	Compare physiological systems acro the animal kingdom, including through indepth topic presentations.
		CO4	Knowledge of neuromuscular coordination and the mechanism of osmoregulation in animals and endocrine system and their function is attained.
		CO5	Understood the menstrual cycle and the role of contraceptive in population control.
		CO6	Explore the basic physiological principles common to animals, relating structure to function.
		CO7	Understood about the composition of food and mechanism of digestion absorption and assimilation.
21UZO06	DEVELOPMENTAL BIOLOGY	CO1	Understood the process of development of animals.
		CO2	To understand the basic concepts and theories related
		CO3	To understand the basic concepts and theories related to developmental biology
		CO4	Be able to identify important unsolved problems in cell and developmental biology.
		CO4	Understand the concept of cell differentiation and gene action in development State the techniques on experimental embryology, prenatal diagnostic procedures and different types of
		CO5	Illustrate cleavage, blastulation and gastrulation
		CO6	Be able to write clearly and effectively about cell and developmental biology at the graduate level as well as in layperson terms.
		CO1	Demonstrate theory and practical skills in microscopy and their handling techniques and staining procedures.

21PZO07	IMMUNOLOGY AND MICROBIOLOGY	CO2	Know various Culture media and their applications and also understand various physical and chemical means of sterilization
		CO3	Know General bacteriology and microbial techniques for isolation of pure cultures of bacteria, fungi and algae
		CO4	To inculcate the basic knowledge of immunology and disorders in human beings.
		CO5	Acquire knowledge on the culture, isolation and control of microorganisms.
21UZOE01	BIOINFORMATICS, BIOSTATISTICS AND COMPUTER APPLICATIONS	CO1	Distinguish different types of data and sampling techniques.
		CO2	Attained knowledge of data collection, tabulation and presentation of data and measures of central tendency, probability and Chi-square test.
		CO3	Calculate and interpret measures of central tendency and variability in statistical data
		CO4	Evaluate, select and use office productivity software appropriate to a given situation
		CO5	Operate a variety of advanced spreadsheet, operating system and word processing functions
		CO6	It helps to analyze the Bioinformatics tools of Proteomics, Genomics and Drug designing.
		CO1	Evaluate the quality of poultry meat and eggs Conduct post mortems and use the knowledge of significant diseases in poultry production
		CO2	At the end of the course the student acquires the basic knowledge about the techniques of production of poultry meat and table eggs
		CO3	In particular, the student is able to deal responsibly with the management aspects of the production system.

21UZOS04	POULTRY SCIENCE	CO4	Learning of poultry farming will generate a source of employment opportunities in rural areas and employment to the farmers.
			Formulate diets for poultry.
		CO5	The management of the rearing environment, the laying hens of laying hens and chicken meat, the different feeding phases of the birds; the issues related to welfare and animal protection legislation.
21UZOS05	MEDICAL LABORATORY TECHNIQUES	CO1	Identify the different clinical laboratory settings and roles in a health care organization.
		CO2	The students learn to perform tests that aid in the diagnosis and treatment of diseases.
		CO3	It involves analysis of body matter such as fluid, tissue, and blood.
		CO4	Apply essential skills to procedures commonly performed in a clinical laboratory.
		CO5	Distinguish between normal and abnormal laboratory results
			SEMESTER -VI
21UZO08	ENVIRONMENTAL BIOLOGY	CO1	Ability to demonstrate sound understanding on scientific inquiry in the field of modern ecology
		CO2	Ability to structure and functions of ecosystem.
		CO3	Ability to examine the main limitations/ stress on patterns of productivity, energy flow through natural food webs, and ecosystems dynamics.

	BIOLOGY	CO4	Ability to set up basic and advanced ological sampling techniques in different ecosystems.
		CO5	Critically examine the forces impacting ecosystems viz., climate change, stress, population, consumerism, globalization, land use change
		CO6	Ability to interpret ecosystem services, ecological resilience, ecological economics, and landscape ecology
21UZO09	ETHOLOGY	CO1	The range of behavior prevalent in the animal kingdom starting from innate to learned behavior, from fighting to cooperating etc.
		CO2	For effective management of game animals.
		CO3	Must be aware of habits of his / her animals to get maximum benefit
		CO4	The information and the insight gathered in animal behavior can be used to understand human behavior
		CO5	Man may want to keep pets for recreation. For healthy pet management it is essential to understand the behavior.
		CO6	Behavioral studies can help in animal conservation. By understanding the nesting and territorial habits of the birds can help to create or preserve the habitats required by them. It can also help to increase the number of endangered and threatened animals
21UZO010	EVOLUTIONARY BIOLOGY	CO1	Knowledge of eras and evolution of species
		CO2	Theories of Evolution
		CO3	understand that by biological evolution we mean that many of the organisms that inhabit the Earth today are different from those that inhabited it in the past
		CO4	understand that the three necessary and sufficient conditions for natural selection to occur are: (1) a struggle for existence; (2) variation; and (3) inheritance

		CO5	understand that by biological evolution we mean that many of the organisms that inhabit the Earth today are different from those that inhabited it in the past
		CO6	Describe the Theory of Evolution considering Darwinism and Modern Synthetic Theory
21UZOE03	SERICULTURE	CO1	Described Taxonomy, Morphological sex differences in larva and adult.
		CO2	Train the students in identifying the diseases and pests of the mulberry plant.
		CO3	Understood the culture of mulberry plants.
		CO4	Came to know about the culture methods of B.mori and mulberry silk.
		CO5	Studied the quality of silk, silk gland and marketing strategies of silk
		CO6	Described the diseases and pests of B.mori.
		CO7	To know the history and socio-economical aspects of sericulture.
21UZOS06	APICULTURE	CO1	Encourage Students" participation in scientific beekeeping.
		CO2	Maintain ecological balance in nature by way of domestication of honey bee species.
		CO3	Maintain small apiaries for demonstration, pollination, extraction and popularization of honey and other by-product of beekeeping.
		CO4	Motivation of students to adopt beekeeping as source of their livelihood.

21UZ0P03	CORE PRACTICAL-III	CO1	Understood the inheritance of mendelian traits by direct observation among students.
		CO2	Acquired knowledge skill development and observation of blood group identification and pedigree chart preparations.
		CO3	Learn to properly use animals and modern laboratory equipment to conduct physiological research.
		CO4	To examine models of organs and systems
		CO5	The knowledge required to to design, execute, and analyze the results of genetic experimentation in animal and plant model systems
21UZ0P04	CORE PRACTICAL - IV	CO1	Got knowledge of embryonic development, cleavage and develop of an embryo
		CO2	Understood the techniques of different instruments
		CO3	To get information of modern contraceptive devices.
		CO4	Understood the basic of computer applications
		CO5	Learn sperm health by technique of early detection of sperm analysis, uterine cervix cancer.

PROGRAMME SPECIFIC OUTCOMES OF POSTGRAGUATE PROGRAMMES (2020-2021ONWARDS)

Name of the Programme: M.Sc Zoology	
PSO1	To facilitate Higher education & research in zoology
PSO2	of Zoology.
PSO3	Master of Science majors of conservation biology and ecology, giving you an in-depth knowledge of those most closely related programmes
PSO4	Apply the wide range of subject based skills to various fields that provide a base for future career
PSO5	Understand Nature, environment natural resources and their conservation, Classification & Behaviour of different animals, Human genetics, Cytology and Evolution.
PSO6	To provide quality education offering skill based programs and motivate the students for self employment in applied branches of Zoology.
PSO7	Apply the wide range of subject based skills to various fields that provide a base for future career in disciplines such as Health Sciences, Agriculture, Environmental Management,Apply the wide range of subject based skills to various fields that provide a base for future career in disciplines such as Health Sciences, Agriculture, Environmental Management,
PSO8	Perform, Assess and implement practical techniques and procedure to solve biological problems and analyse and quantify data collected during any project. Understand the applications of Biological techniques to various fields of biology
PSO9	Apply the wide range of subject based skills to various fields that provide a base for future career in disciplines such as Health Sciences, Agriculture, Environmental Management, Biotechnology, Publishing ,Teaching and Research.

COURSE OUTCOMES OF POSTGRADUATE PROGRAMMES (2020-2021 ONWARDS)

Name of the Programme:M.Sc Zoology

Course Code	Course Title	Course Outcome	
SEMESTER - I			
20PZO01	STRUCTURE AND FUNCTION OF INVERTEBRATES	CO1	Classify the Animal species based on the Characteristics features
		CO2	Know the locomotion, feeding and digestion of all Invertebrates
		CO3	Know the structure and function of Respiratory and Excretory organs of Invertebrates.
		CO4	Learn about the skeletal arrangements in the Invertebrates
		CO5	Gain Knowledge about various larval forms of Invertebrates
20PZO02	COMPARATIVE ANATOMY OF CHORDATES	CO1	Classify the animal species based on the characteristics features into classes.
		CO2	Know about the integuments and its derivates in the vertebrates
		CO3	Able to compare the structure and function of various systems in vertebrates.
		CO4	Learn about the skeletal arrangements in the chordates
		CO5	Gain Knowledge about various types of sense organs in the vertebrates
20PZO03	CELL BIOLOGY AND MOLECULAR BIOLOGY	CO1	The graduate will able to explain the functional eukaryotic cell at molecular level.
		CO2	The students can explain briefly about the cytoskeleton system of a cell and its function.
		CO3	The students can briefly describe the cell adhesion and its communications
		CO4	Graduate can describe the functions of nucleus which control the cell
		CO5	The student will able to perform the techniques employed by the cell organelles.
		CO1	To student will able identify microorganisms in our environmentand classify them.
		CO2	The student will acquire knowledge about how to culture different microbes.

20PZOE01	MICROBIOLOGY	CO3	Gain knowledge about microbes in food industries, developing antibiotics from microbes.
		CO4	The graduate can understand the pathogenic microbes and their control measures.
		CO5	Understand the application of microbial technology in the production of bio-fertilizers and bio-pesticides.
20PZOE02	VERMICULTURE	CO1	Gain knowledge about types of earthworms and life history of composting earthworms native and exotic
		CO2	Get adequate knowledge about various organic waste materials used to prepare vermicompost and how to overcome the problems during culture period.
		CO3	Able explain the nutrients present in vermicompost and vermiwash, how it can be applied to the field.
		CO4	The student will get knowledge to explain how vermicompost is important in Organic farming.
		CO5	Gain knowledge about various types of composting methods, application mode and usage of earthworms in Ayurvedic and Unani medicinal practices.
20PZOP01	CORE PRACTICAL - I	CO1	Can explain the principles of molecular cloning and PCR, cell transfection and Western blotting
		CO2	Understood the Microbial techniques and different tests.
		CO3	knows the general safety routines for laboratory work in molecular biology
		CO4	Students can learn cell division and the microscopy technique.
		CO5	Can critically evaluate and discuss experimental results
20PZO04	GENETICS	CO1	The Students will able to knowing and understanding the organization and functions of genetic materials in biosphere.
		CO2	The Students will able to knowing and understanding the organization and functions of genetic materials in biosphere.
		CO3	Students can develop knowledge on karyotyping and human genome project.
		CO4	The students can explain the modification happens by mutation at gene level, chromosomal changes by various factors.
		CO5	Graduates can evaluate the functions of nucleotides and amino acid changed in population genetics.

20PZO05	IMMUNOLOGY	CO1	Develop the immune system against pathogens.
		CO2	Raise the monoclonal antibodies for the infections.
		CO3	Easily understand the immune system and mode of action against infection.
		CO4	The candidate can explain how immunological response activated against infection.
		CO5	The student can describe briefly about the hypersensitivity response activated.
20PZO06	BIOCHEMISTRY	CO1	Understand the chemical structure and function of various bio-molecules
		CO2	Learn about theories on Bio-molecules
		CO3	Easily explain enzymes and their role in living organism.
		CO4	Learn about the conformation structure of proteins, lipids and nucleic acids
		CO5	Explain the metabolism of carbohydrates, proteins, lipids, vitamins and nucleic acids
20PZOE03	POULTRY SCIENCE	CO1	The graduate can explain the scope and future prospectus of poultry industry
		CO2	The student can brief about the daily work in poultry farm activities.
		CO3	He will neatly explain the brooders, breeding methods and vaccinations in poultry farms.
		CO4	The students are exposed to prepare poultry feed using different ingredients and symptoms of various diseases that affects poultry farms.
		CO5	The graduate gain knowledge about getting bank and government funds regarding poultry farms.
20PZOE04	AQUACULTURE	CO1	Explain briefly the importance of aquaculture and its scopes.
		CO2	The student can clearly know which type of culture and which aquatic organisms are suitable for culture in his locality.
		CO3	The student can gain knowledge about probiotics, and live feed culture techniques.
		CO4	The graduate can easily identify the symptoms of bacterial, viral and fungal diseases to culture fishes and its remedial measures.
		CO5	The graduate can guide farmers to get loans from nationalized banks for fish farming.
20PZOP02	CORE PRACTICAL - II	CO1	Understand about the isolation, separation and purification ofNucleic acids and enzymes.
		CO2	Master aseptic techniques and be able to perform routine culture handling tasks safely and effectively
		CO3	Analyze the data and interpretation with iesults.
		CO4	Apply the information tools for nucleotide sequencing.
		CO5	Know the various Physical and Chemical growth requirements of bacteria and get equipped with various methods of bacterial growth measurement.

20PZONM01	FISHERY BIOLOGY	CO1	Easy to get employment / self-employment opportunities in fish farms.
		CO2	Able to design and construct aqua farms and know farm managements
		CO3	Learn knowledge how to select cultivable species, rearing and harvesting techniques.
		CO4	Gain knowledge about hatchery operations and its managements.
		CO5	Understand the fish diseases and its remedial methods.
20PZONM02	NURTRITION AND DIETETICS	CO1	Gain knowledge about nutritional classification various food sources and their nutritive values.
		CO2	Able to understand balanced diet and diet for malnutrition, vitamin deficiency persons
		CO3	Understand the nutritional requirement for various disease infected patients.
		CO4	Students can understand the principle of nutrition for pregnant women.
		CO5	Gain knowledge regarding diet for heart, coronary, hypertension patients
SEMESTER III			
20PZO07	COMPARATIVE ANIMAL PHYSIOLOGY	CO1	Adaptive nature of animals in related to their habitat
		CO2	Osmoregulatory behaviour of animals in relation to stress, changes in environmental conditions.
		CO3	Basic mechanism of respiratory organs
		CO4	Learn about the excretory and endocrine system in animals.
		CO5	Understand the neuromuscular interactions in animals
20PZO08	DEVELOPMENTAL BIOLOGY	CO1	Understand the cellular and molecular level developments of organisms
		CO2	Students will gain knowledge on gametogenesis and embryological development.
		CO3	Students will acquire knowledge about organ formation and their development during embryology.
		CO4	Know various stages of regeneration mechanism happen in embryo and adults.
		CO5	To understand the modern embryological techniques in related to male and female infertility.

20PZO09	RESEARCH METHODOLOGY	CO1	Choose the appropriate research design and develop research hypothesis for a research work.
		CO2	Develops the ability to apply methods to present, prepare research article for publications.
		CO3	Student can acquire knowledge to handle various instruments in related to his research work.
		CO4	Gain knowledge regarding tracer techniques.
		CO5	Develops appropriate statistical methods required for research work design
20PZOE05	ENTOMOLOGY	CO1	Classify the insects up to order level.
		CO2	Explain the morphology and system of insects
		CO3	Understand the various internal systems of the insects.
		CO4	Students can acquire knowledge about Sericulture, Apiculture and Lac culture techniques.
		CO5	Briefly gain knowledge on pest and its management methods.
20PZOE03	MEDICAL PARASITOLOGY	CO1	Describe the morphology and classification of parasites of medical importance.
		CO2	Acquire knowledge about the life history, mode of transmission, and pathogenesis of various human parasites.
		CO3	Explain the parasitic mode of infection by trematodes and nematodes.
		CO4	Gain knowledge about many vector borne infections in Human beings.
		CO5	Outline the treatments for various parasitic infections, prevention and control measures.
20PZOP03	CORE PRACTICAL - III	CO1	Understand the principle and working procedure of instruments.
		CO2	To prepare some physiological experiments.
		CO3	To dissect experimental animals, and identify various systems
		CO4	To identifr the embryonic development of chick.
		CO5	To identify the enzyme actions.

20PZONM03	DAIRY SCIENCE	CO1	Understand the processes related to storage, processing and milk products.
		CO2	To perceive the different properties of milk and milk products.
		CO3	The students will gain knowledge regarding various processing of milk and varieties of milk products
		CO4	The student can acquire hygiene and sanitation practices in utensils and machineries in dairy industry.
20PZONM04	INSECT PEST MANAGEMENT	CO1	Create awareness about pest, its surveillance and sampling methods.
		CO2	Gain knowledge about pests in agro-ecosystem
		CO3	Understand the role of IPM in sustainable agriculture as the future of modern plant protection.
		CO4	Learn about the use of different pest control methods.
		CO5	Gain knowledge on latest pest control measure by pheromones and BT crops
SEMESTER IV			
20PZO10	ENVIRONMENTAL BIOLOGY	CO1	An Environmental biology will be able to recognize the physical, chemical, and biological components of the earth's systems and show how they function.
		CO2	Environmental Biology shall demonstrate the scientific method and quantitative techniques to describe, monitor and understand environmental systems.
		CO3	Students will apply knowledge of the sciences within an interdisciplinary context in solving environmental issues such as environmental health, food and agriculture, energy, waste and pollution, climate change, population, resource management, and
		CO4	Students will carry out an applied research project in the natural sciences.
20PZO11	EVOLUTION	CO1	Students learn how evolution is the central theoretical explanation for all of life, for all its diversity of form and function.
		CO2	Students learn that evolution is a significant part of understanding who we are as humans.
		CO3	Students learn practical skills like constructing phylogenetic trees.
		CO4	Describe the molecular methods to study genetic variation within and between species
20PZOP04	CORE PRACTICAL - IV	CO1	Understand the evolutionary time scales.
		CO2	Interpret laboratory results in accordance to laboratory protocol.
		CO3	Understand the importance and value of sericulture.
		CO4	Understood the nature and functional aspects of intraspecific association of animals
		CO5	Understand the evolutionary time scales.