

UG Department of ZOOLOGY - Programme Outcomes (PO)

PO No.	Upon completion of B.Sc. Degree programme, the graduates will be able to
PO-1	Have an indepth understanding and awareness of relevant theories, paradigms, concepts and principles of zoology and Application of Zoology.
PO-2	Understand the relationships between elements of animal biodiversity and the physical, biological, and cultural environment.
PO-3	Have an understanding of the evolutionary history and main characteristics of the animal groups.
PO-4	Comprehend and critical analysis of population processes, dynamics and interactions, and associated models.
PO-5	Comprehension of the structure, biogeography and diversity of ecosystems in relation to climate, geology, soils, paleo-historical and evolutionary factors.

Programme Specific Outcomes (PSO)

PSO No.	Upon completion of B.Sc. Zoology Degree Programme, the graduates will be to able to:	Mapping
PSO-1	Know the fundamental principles in Zoology. Recognize the relationships between structure and functions biological organization of animals.	PO-2
PSO-2	Analyse the principles, classification, form and function of animal evolution, and to compare the structure of Prokaryotes and Eukaryotes.	PO-3
PSO-3	Understand the animal diversity which includes animal classification with taxonomy and their diagnostic characteristics.	PO-2
PSO-4	Apply knowledge and understanding the protection and restoration of biological diversity, ecological integrity and health. Understand a range of conservation management.	PO-5
PSO-5	Understand the applied biological sciences such as Sericulture, Aquaculture and Apiculture	PO-1
PSO-6	Collect, record and analyze data using appropriate ecological, genetic, and physiological techniques in the field and laboratory.	PO-3
PSO-7	Use information technology systems effectively to analyze and interpret data, and the evidence for reseaech.	PO-3
PSO-8	Develop the writing skills required in the programme which includes publishing research articles, oral and poster presentations at conferences.	PO-1
PSO-9	Explain the molecular and cellular basis of physiological functions in animals.	PO-3
PSO-10	Provide innovative skills which will enable to develop the knowledge and skills required for employment such as biochemistry, microbiology, aquaculture, apiculture and bio technology on the level of the gene, genome, and their functions.	PO-2
PSO-11	Perform practical skills in the areas of developmental biology, biochemistry, cell and molecular biology, genetics, immunology and microbiology	PO-1

Course Outcomes (CO)

COs of the course “ANIMAL DIVERSITY-I”

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Recall the taxonomy, classification, structure and different systems in Protozoa to Echinodermata.	1,3	REMEMBER
CO-2	Identify the unique characters and functions of Protozoa, Porifera, Coelenterates and Helminthes.	1,3	APPLY
CO-3	Compare the relationships between invertebrates and their environment.	3,4,6	UNDERSTAND
CO-4	Distinguish the origin and evolutionary relationship of different phylum from Porifera to Echinodermata.	1,2,	ANALYZE
CO-5	Identify the diversity from Protozoa to Echinodermata.	1,2	APPLY

Course Outcomes (CO)

COs of the course “ANIMAL DIVERSITY-II”

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Define the main characteristics of Chordates and recall the classification of Phylum Chordata.	1	REMEMBER
CO-2	Distinguish the relationship between structure and function of organ systems and their adaptation with environment.	3	ANALYZE
CO-3	Compare the characteristics features of Amphibians with Reptiles.	1,3	ANALYZE
CO-4	Discuss the unique characters and functions of Aves with reference to their adaptations.	1,3	CREATE
CO-5	Demonstrate the ecological role of diversity of vertebrates, fundamentals of classification and characteristics features of Mammals.	2,4,6	UNDERSTAND

Course Outcomes (CO)

COs of the course “DEVELOPMENTAL BIOLOGYI”

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Define the principle of developmental biology and	1,3	REMEMBER

	the progression of gametogenesis.		
CO-2	Organize the events of fertilization, cleavage and development of organs.	1,11	APPLY
CO-3	Classify the different types of placenta and organizers.	1,10	ANALYZE
CO-4	Explain human reproduction and invitro fertilization.	1,10	EVALUATE
CO-5	Discuss the significance of nuclear transplantation and regeneration.	1,10,11	CREATE

Course Outcomes (CO)

COs of the course “ECOLOGY AND EVOLUTION”

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Distinguish the relation between abiotic and biotic factors.	3	ANALYSE
CO-2	Explain various biological interactions in Ecology.	4	UNDERSTAND
CO-3	Categorize the characteristics features of community and population in Ecology.	3,4,8	ANALYZE
CO-4	Discuss the various theories of evolution.	2, 7	CREATE
CO-5	Determine and sketch the evolutionary history of man .	2	EVALUATE

Course Outcomes (CO)

COs of the course “CELL AND MOLECULAR BIOLOGY”

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Define the structures and purposes of basic components of prokaryotic and eukaryotic cells, especially macromolecules and membranes.	3, 11	REMEMBER
CO-2	Explain the structure and function of cell organelles.	3	UNDERSTAND
CO-3	Compare the mitotic and meiotic cell division and describe the structure of chromosomes.	1,3	UNDERSTAND
CO-4	Apply their knowledge to differentiate DNA and RNA.	6	APPLY
CO-5	Recall the mechanism of protein synthesis and lac operan concepts.	11	REMEMBER

Course Outcomes (CO)

COs of the course “BIOCHEMISTRY”

CO No.	Upon completion of this course, students will be able to;	PSO addressed	Blooms taxonomy classification
CO-1	Understand the fundamental concepts of biochemistry like atom and chemical bonds.	7	UNDERSTANDING

CO-2	Analyze the importance of bioenergetics.	7	ANALYZE
CO-3	Explain the synthesis of proteins, lipids, nucleic acids, and carbohydrates and their role in metabolic pathways.	7	UNDERSTANDING
CO-4	Classify the biomolecules like proteins, carbohydrates and lipids.	2, 7	UNDERSTANDING
CO-5	Make use of current biochemical and molecular techniques to carry out experiments in biochemical and Molecular biology.	2, 12	APPLY

PRACTICALS

CP-1	Animal diversity I &II Practicals	18UCZO1P1
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CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Identify and dissect the nervous system in arthropods.	3,4	Ap
CO-2	Develop the ability to differentiate the external and internal characters of invertebrata with chordata.	3,4	AP
CO-3	Sketch, mount and observe the locomotary organs of Invertebrata.	3,4	AP
CO-4	Sketch, mount and observe the external characters in fishes.	1,3	R
CO-5	Identify the microslides, Models and charts of different animals in invertebrata and chordata.	1,3	R

*PSO-Program Specific outcome; CO-Course Outcome;

Cognitive Level: R- Remember; U-Understanding; Ap-Apply; An-Analyze;E- Evaluate; C-Create

CP-2	Developmental Biology ,Ecology and Evolution Practicals	18PCZO2P1
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CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Organize, mount and observe the embryonic stages in birds.	3,11	Ap
CO-2	Estimate the dissolved oxygen present in different water samples.	11	C
CO-3	Differentiate the amphibian egg, sperm and larva.	3,4	Ap
CO-4	Compare and identify different animal relationships.	3,4	Ap
CO-5	Identify sketch and explain different animals with great evolutionary significance.	1,3	R

*PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R- Remember; U-Understanding; Ap-Apply; An-Analyze;E- Evaluate; C-Create

CP-3	Cell biology Practicals	18UCZO3P1
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CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Understand the cytological techniques of various cellular components.	3,4	U
CO-2	List and mount various stages of mitosis in plants and meiosis in arthropods.	1,3	R
CO-3	Show different types of epithelial cells and blood cells in human.	6	U
CO-4	Dissect and mount giant chromosomes in animals.	6,11	An
CO-5	Identify, sketch and explain the cell organelles.	6,11	U

*PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R- Remember; U-Understanding; Ap-Apply; An-Analyze;E- Evaluate; C-Create

CP-4	Biochemistry Practicals	18UCZO4P1
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CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Understand the principles and techniques of various instruments.	11	CREATE
CO-2	Determine the qualitative analysis of biomolecules.	11	EVALUATE
CO-3	Estimate the pH values of different water samples.	11	CREATE
CO-4	Identify the biochemical structure of cell organells.	3,4	APPLY
CO-5	Apply the principles and working mechanism of different apparatus.	3,4	APPLY

*PSO-Program Specific outcome; CO-Course Outcome;

Cognitive Level: R- Remember; U-Understanding; Ap-Apply; An-Analyze; E- Evaluate; C-Create

**Sadakathullah Appa College(Autonomous),
Department of Botany
ALLIED II for B.Sc., Zoology
Programme Outcomes (PO)**

PO No.	Upon completion of B.Sc. Zoology Degree programme with Allied Botany, the graduates will be able to:
PO-1	Understand the basic ideas on scientific reasoning and the implications of meaningful evaluation in botanical studies.
PO-2	Identify and diversify the various forms of plants and discuss their general features, origin, evolutionary trends of life on earth.
PO-3	Explain the basic concepts and plant biotechnology techniques.
PO-4	Illustrate the traditional health care systems and tribal medicines.
PO-5	Demonstrate different techniques on horticulture, various systems of treatment and herbal products.
PO-6	Show the skills in doing research and also makes them employable.

Programme Specific Outcomes (PSO)

PSO No.	Upon completion of B.Sc. Zoology Degree programme with Allied Botany, the graduates will be able to:	Mapping
PSO-1	Discuss the diversity of all plant kingdoms and understand their unique features, significance and systematic positions.	PO-1
PSO-2	Understand the basic concepts of biology and compare the dissimilarity of various developmental processes in organisms.	PO-2
PSO-3	Determine and connect the role of plants in regulating life of earth and its importance on the basis of mechanism.	PO-2
PSO-4	Demonstrate updated knowledge of horticulture, mushroom culture for rural development and self employment.	PO-5
PSO-5	Evaluate initial thinking skills and lab techniques.	PO-6
PSO-6	Develop a firm establishment and understanding of the current issues in Botany.	PO-6
PSO-7	Analyze the ethical behavior in vegetative propagation of medicinal and ornamental plants.	PO-5
PSO-8	Develop a rigorous scientific attitude and provide excellence in teaching and research.	PO-6

III SEMESTER		
II-A -I	PLANT DIVERSITY & PLANT PATHOLOGY	18UABT31
Hrs / Week : 4 Hrs / Sem : 4 x 15 =60 Hrs / Unit : 12 Credits : 3		

Course Outcome (CO)

CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Explain the general characters of algae, fungi, lichen, pteridophytes, and gymnosperms and its structures.	PSO-1	U, EV
CO-2	Evaluate the importance of algae, fungi, lichen, pteridophytes and gymnosperms and their significant role in environment.	PSO-5	EV
CO-3	Identify the algal specimens collected from the field visit.	PSO-1, PSO-3	AP
CO-4	Distinguish the life cycle of specific algae, fungi, lichen, pteridophyte, gymnosperm and some specific angiosperm plants.	PSO-1, PSO-5	AN
CO-5	Recall various classification systems and understand the fundamental classification of these systems.	PSO-3	R
CO-6	Discuss the specific plant families and their vegetative, floral characters and economic importance.	PSO-7	C
CO-7	Understand the basic concepts of plant pathology and learn about the causal organisms of plant diseases.	PSO-7	U
CO-8	Determine the various plant diseases and their impact on agriculture.	PSO-4	EV
CO-9	Identify the symptoms and diagnosis of different plant diseases and its control measures.	PSO-7	AP
CO-10	Identify pathogenecity with their specific symptoms.	PSO-7	AP

III SEMESTER		
II-A-PI	Plant Diversity and Plant Pathology Practical	18UABT3P1
Hrs / Week : 2	Hrs / Sem : 15 x 2 =30	Credits :2

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Evaluate and discuss group of plants in terms of their diversity.	PSO-1	EV
CO-2	Distinguish the first vascular plants and first flowering Plants.	PSO-1	AN
CO-3	Identify various group of plants and their vegetative, floral characters and economic importance.	PSO-5	AP
CO-4	Find out the pathological diseases in plants.	PSO-4	C
CO-5	Determine the various plant diseases, its prevention, control measures and its effect on the economy of crops.	PSO-4, PSO-7	EV

IV SEMESTER		
A II - 2	PLANT ANATOMY, PLANT FUNCTIONS & PLANT BIOTECHNOLOGY	18UABT41
Hrs / Week : 4	Hrs / Sem : 4 x 15 =60	Hrs / Unit : 12 Credits : 3

Course Outcome (CO)

CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Classify the meristems and explain the organization of root apex.	PSO-1	U
CO-2	Distinguish meristematic and permanent tissue.	PSO-1	AN
CO-3	Understand the secondary growth in dicot stem (Normal and anomalous).	PSO-1, PSO-2	U
CO-4	Explain the structure and functions of internal plant parts.	PSO-1, PSO-2, PSO-3.	EV
CO-5	Determine the basic principles of plant physiology.	PSO-5	C
CO-6	Discuss the functional biology of plants.	PSO-2	C
CO-7	Distinguish between the physiological process and their significance.	PSO-2	AN
CO-8	Compare the light and dark reaction of photosynthesis.	PSO5, PSO-6.	U
CO-9	Understand the respiration and photosynthetic process of plants.	PSO-5	U
CO-10	Understand the anabolic and catabolic process of plants.	PSO-5	U
CO-11	Explain the basic concepts in plant biotechnology.	PSO-7	EV

IV SEMESTER		
IIA-PII	ALLIED II PRACTICAL Plant anatomy, Plant functions and Plant biotechnology	18UABT4P1
Hrs / Week : 2	Hrs / Sem : 2 x 15 = 30	Credits :2

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Identify the sections of plant materials of anatomical and morphological structures.	PSO-1	AP
CO-2	Discuss on various plant water relations.	PSO-1	C
CO-3	Relate practical knowledge on Physiology of plant structure and its functions.	PSO-5	U
CO-4	Experiment with the photosynthetic mechanism and related events of plants.	PSO-2, PSO5, PSO-6	AP
CO-5	Demonstrate the basic protocols and fundamentals of plant tissue culture.	PSO-7	U

VI SEMESTER		
SEC-IV	HERBAL TECHNOLOGY AND HORTICULTURE	18SEZO61
Hrs / Week : 2	Hrs / Sem : 2 x 15 = 30	Hrs / Unit : 6 Credits : 1

Course Outcome (CO)

CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Discuss the economic use, botanical name, family, morphology, production of specific economically important plants.	PSO-1	C
CO-2	Understand the basic concepts of gardening, including types of gardens and garden plants.	PSO-4	U
CO-3	Sketch the principle of garden design.	PSO-7	EV
CO-4	Explain garden features and ways to take care of garden plants.	PSO-7	U
CO-5	Design and manage a good nursery.	PSO-8	C

IV SEMESTER		
NME-1	MUSHROOM CULTURE	18UEBT4A
Hrs / Week : 3 Hrs / Sem : 3 x 15 = 45 Hrs / Unit : 9 Credits : 4		

Course Outcome (CO)

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Understand the importance and different types of mushrooms.	PSO-1	U
CO-2	Identify the types of mushrooms.	PSO-2	AP
CO-3	Demonstrate the method of spawn production.	PSO-4, PSO-5	U
CO-4	Organize ideas and skills to cultivate the mushrooms.	PSO-7	AP
CO-5	Develop skills in mushroom farming for self employment.	PSO-8	AP

III SEMESTER		
SEC-I	PLANT RESOURCES AND THEIR UTILIZATION	
Hrs / Week : 2 Hrs / Sem : 2 x 15 =30 Hrs / Unit : 6 Credits :2		

Course Outcome (CO)

CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Understand various plant resources as food.	PSO-1	U
CO-2	Identify the plant resources for food and medicine.	PSO-2	AP
CO-3	Define the botanical name, family, and morphology of specific plant resources.	PSO-3	R
CO-4	Summarize the cultivation practice of beverages (tea).	PSO-2, PSO-3.	U
CO-5	Create the plant resources based on their utilization .	PSO-8.	C

Department of Applied Nutrition and Public Health
B.Sc Zoology (Allied subject)
Programme Outcomes (PO)

PO No.	Upon completion of B.Sc. Degree programme, the graduates will be able to:
PO-1	Apply the acquired knowledge of nutrition computing to give solutions to various problems of the contemporary world.
PO-2	Perform analysis to assess, interpret and create innovative ideas through practical experiments.
PO-3	Combine the interdisciplinary knowledge and skills acquired through elective/ability or skill enhancement course to solve day to day scientific problems.
PO-4	Carry out fieldworks and projects both independently and in collaboration with others and to report in a constructive way.
PO-5	To write articles to spread the message of equality, nationality, social harmony and other human values.
PO-6	Emerged as a multifaceted personality who is self dependent; earning his own bread and butter and also creating opportunities to do so.
PO-7	Realized that the pursuit of knowledge is a lifelong process and one can achieve the success only with untiring efforts and positive attitude.
PO-8	Attain democratic, moral and social values in the minds of learners for building a healthy nation.

Programme Specific Outcomes (PSO)

PSO No.	Upon completion of B.Sc. Zoology Degree programme, the graduates will be able to:	Mapping
PSO-1	Recall different food groups and their contribution to nutrition.	PO-1
PSO-2	Take part in the preparation of foods with attention to the preservation of their nutritive value, oriented to Indian cooking.	PO-2
PSO-3	Select the different methods of cooking and their advantages and disadvantages.	PO-2
PSO-4	Test the qualitative and quantitative estimation of nutrients.	PO-2
PSO-5	Develop skills in planning and preparation of therapeutic diets for various diseases.	PO-3
PSO-6	Plan meals for special groups – school going children, adolescents, adult women, pregnant and nursing mothers.	PO-3
PSO-7	Recommend the solutions to overcome problems of malnutrition in the community and the role of national and international agencies in the concerned area.	PO-4
PSO-8	Understand the importance of nutrition in national progress and the significance of assessment of nutritional status in society	PO-5
PSO-9	Formulate new recipes with recent techniques and incorporate nutrition.	PO-6
PSO-10	Propose different types of visual aid for the community to gain practical experience in giving demonstration, conducting survey and other methods of assessments.	PO-7
PSO-11	Influence and deliver effective awareness about nutrition and hygiene to the general public	PO-3, PO-8
PSO-12	Develop and evaluate quality of new food products with recent techniques.	PO-3, PO-6,
PSO-13	Understand the basic concepts in food chemistry and analysis.	PO-2, PO-1

FOOD SCIENCE -Course Outcomes (CO)

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Understand the vital link between nutrition and health.	1	Understanding
CO-2	Make use of practical experience in different methods of cooking and their influence on nutrient retention.	2,3,5,13	Applying
CO-3	Utilize knowledge to germinate the pulses and influence its advantages to health.	1, 2, 3,13	Applying
CO-4	Create an awareness on different types of oil uses and its influence on health.	1, 5	Creating
CO-5	Determine the importance of condiments and spices in the diet.	1, 5	Evaluating
CO-6	Identify food adulterants and its harmful effects on humans.	1	Applying
CO-7	Evaluate nutritive value of cereals, pulses, nuts, oil seeds, vegetables, fruits, milk, egg and fleshy foods.	1,5	Evaluating

APPLIED NUTRITION -Course Outcomes (CO)

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Understand the importance of menu planning for different age groups and health condition.	1,2,3,6	Understanding
CO-2	Create an awareness to assess the nutritional status of community and to combat malnutrition.	5,7,10,11	Creating
CO-3	Understand the factors affecting basal metabolic rate for each individual.	1	Understanding
CO-4	Explain the functions, sources and requirements of carbohydrates, proteins and lipids to improve health.	1,5,6	Understanding
CO-5	Elaborate the functions, sources, requirements and deficiency of vitamins and minerals.	1,5	Creating
CO-6	Analyze the methods and steps to eradicate the protein energy malnutrition in community.	1,7,8,10	Analyzing

DIET THERAPY -Course Outcomes (CO)

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Understand the responsibilities of a dietitian in a hospital.	1	Understanding
CO-2	Create knowledge on therapeutic diet.	1,2,3,5,6	Creating
CO-3	Recommend diet counseling for various disease conditions.	3,5,6	Evaluating
CO-4	Understand the principles of dietary management in obesity and underweight.	1,3,5	Understanding
CO-5	Elaborate the dietary modification in metabolic disorders.	1,3,5	Create
CO-6	Explain the functions, etiology, symptoms and dietary management for liver and kidney diseases.	1,3,5	Evaluating
CO-7	Identify and explain the fundamental components and nutrients in food to plan diet for normal and diseased condition for a healthy living.	5,6,8	Applying

Public Health- Course Outcomes (CO)

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Recall the concept of hygiene and public health.	1,11	Remembering
CO-2	List out the hazards to community health by various pollution.	10	Analyzing
CO-3	Organize nutritional education in a community by planning, evaluation and implementation of programme.	1,7,8,10,11	Applying
CO-4	Extend the knowledge on national and international agencies to combat malnutrition.	1,7,8	Understanding
CO-5	Understand the salient features of Mid day Meal Programme in India.	1,7,8	Understanding
CO-6	Create an awareness on nutrition related policies and programmes like Vitamin A Prophylaxis Programme and National Anemia Control Programme.	7,8	Creating
CO-7	Create an awareness on nutrition related policies and programmes like National Goiter Control Programme and National Leprosy Control Programme.	7,8	Creating

HEALTH AND FITNESS-Course Outcomes (CO)

CO No	Upon completion of this course, students will be able to:	PSO Addressed	Blooms taxonomy classification
CO 1	Elaborate the relationship between fitness and nutrition.	7,8	Creating
CO 2	Explain the physical, mental and social health of the individual.	7,8,10	Understanding
CO 3	Identify and prevent the public health problems in the society.	6,7,8	Applying
CO 4	Apply knowledge to treat common health problems in the individual.	5	Applying
CO 5	Assess the physical fitness with food and nutrient intakes.	1,6	Evaluating
CO 6	Understand the importance of ethical codes and guidelines of fitness.	8	Understanding

FOOD SAFETY AND QUALITY CONTROL--Course Outcomes (CO)

CO No	Upon completion of this course, students will be able to:	PSO Addressed	Blooms taxonomy classification
CO 1	Understand the principles of Quality Control and food safety.	12	Understanding
CO 2	Evaluate the newly developed food product by sensory methods.	2, 3,9,12	Evaluating
CO 3	Explain the principles of HACCP in different food products.	12,13	Understanding
CO 4	Identify hazards and critical control points of various existing production processes.	12,13	Applying
CO 5	Adapt hygiene and sanitation methods for various food processing equipment.	10,12,13	Creating

I – ALLIED FOOD SCIENCE PRACTICALS – I - Course Outcomes (CO)

CO No	Upon completion of this course, students will be able to:	PSO Addressed	Blooms taxonomy classification
CO 1	Identify various food groups.	1	Applying
CO 2	Identify the food adulteration.	13	Applying
CO 3	Identify different stages of sugar cookery.	2,3	Applying
CO 4	Plan and prepare different types of foods on cereals, pulses, milk products, meat, fish, poultry and eggs.	2,3,9,12	Creating
CO 5	Apply practical experience in different methods of cooking and their influence on nutrient retention.	2,3,5,13	Applying

I – ALLIED APPLIED NUTRITION PRACTICALS – II - Course Outcomes (CO)

CO No	Upon completion of this course, students will be able to:	PSO Addressed	Blooms taxonomy classification
CO 1	Estimate vitamin C in different food products.	4,13	Evaluating
CO 2	Test the qualitative estimation of carbohydrates and proteins.	4,13	Creating
CO 3	Plan and prepare menu for pregnant and lactating women for their better health condition.	6,7,9,12	Applying
CO 4	Plan and prepare a menu for vitamin A deficient school children.	5,6,9,12	Applying
CO 5	Plan and prepare a menu for adolescent anemic girl.	5,6,9,12	Applying

Course Outcomes (CO)

COs of the course “ANIMAL PHYSIOLOGY”

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Understand the various bio molecules present in the body and to describe the role and functions of different bio molecules.	1,3	UNDERSTAND
CO-2	Categorize the physiology at cellular and system levels in vertebrates and invertebrates.	1	ANALYSE
CO-3	Demonstrate the physiology of respiratory, renal, endocrine and reproductive systems and define the normal and abnormal functions.	1,9	UNDERSTAND
CO-4	Discuss the physiological parameters are measured in Mammals.	6	CREATE
CO-5	Illustrate the importance of proteins, carbohydrates and fats.	1,6,9	UNDERSTAND

\ Course Outcomes (CO)

COs of the course “GENETICS”

CO No.	Upon completion of this course, students will be able to :	PSO addressed	Blooms taxonomy classification
CO-1	Demonstrate the basic laws of heredity citing Mendelian laws	12	UNDERSTANDING
CO-2	Explain the sex determination and sex linked inheritance of man.	8	UNDERSTANDING
CO-3	Analyze the genetics of Human metabolic disorders.	10	ANALYZE
CO-4	Classify the types of chromosomal aberrations.	2, 12	ANALYZE
CO-5	Assess the difference between bacterial and viral genetics.	8,10	EVALUATE

Course Outcomes (CO)

COs of the course "FUNDAMENTALS OF BIOTECHNOLOGY"

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Understand the genes and genome and explain the fundamental concepts of genetic engineering.	6	UNDERSTAND
CO-2	Understand the different approaches of gene cloning and its methods.	7	UNDERSTAN
CO-3	Discuss the significance of animal cell culture and the application of stem cells.	10	CREATE
CO-4	Explain the principles and applications of mono clone antibody production and bolting technique.	10	EVALUATE
CO-5	Categorize the current methods used in biotechnology and their applications in transgenic animals.	11	ANALYZE

Course Outcomes (CO)

COs of the course "AQUACULTURE"

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Tell the importance of sustainable fishing in the marine environment.	5	REMEMBER
CO-2	Develop the technical and general knowledge necessary for fisheries management.	6	APPLY
CO-3	Make use of different culture methods for fin fishes and shell fishes.	7	APPLY
CO-4	Infer the types of fish feed and the significance of fisheries management.	7	UNDERSTANDING
CO-5	Asses the role of government organization in fisheries.	8	REMEMBER

CP-6	Animal Physiology ,Genetics and Fundamentals of Biotechnology Practicals	18UCZO5P1
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CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Identify the effect of temperature on opercular movement and the rate of oxygen consumption in a fish.	9	R
CO-2	Analyse qualitatively the nitrogenous waste products in excretory matters of animals.	11	An
CO-3	Verify Mendel's law using beads.	6, 11	R
CO-4	Identify human traits and ABO blood group in Man.	6, 7	AP
CO-5	Identify different procedures of Biotechnology.	7, 11	AP

*PSO-Program Specific outcome; CO-Course Outcome;
Cognitive Level: R- Remember; U-Understanding; Ap-Apply; An-Analyze;E- Evaluate; C-Create

CP-6	Aquaculture Practicals	18UCZO5P2
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CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Identify economically important fishes.	3	R
CO-2	Estimate DO, alkalinity and salinity in the given water samples.	11	E
CO-3	Distinguish different scales of fishes.	1, 2	Ap
CO-4	Identify different diseases of fishes.	3, 4	R
CO-5	Identify planktons in water samples.	3, 6	Ap

*PSO-Program Specific outcome; CO-Course Outcome;

Cognitive Level: R- Remember; U-Understanding; Ap-Apply; An-Analyze;E- Evaluate; C-Create

VI Semester

Course Outcomes (CO)

COs of the course “IMMUNOLOGY AND MICROBIOLOGY”

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Define the cellular and molecular basis of immune system.	1	REMEMBER
CO-2	Explain the role of the immuno globulin ad antigen and antibody interactions.	7	UNDERSTAND
CO-3	Identify the role of immune system in protection against infection.	7	APPLY
CO-4	Determine the micro organisms which play an integral role in disease, and the isolation microbes.	6,7	EVALUATION
CO-5	Make use of microbiology in soil and food industry .	10,11	APPLY

Course Outcomes (CO)

COs of the course “APPLIED BIOTECHNOLOGY”

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Understand the principles of waste water treatment and bioremediation.	6	UNDERSTAND
CO-2	Apply recent techniques of somatic hybridization and genitically modified crops.	7	APPLY
CO-3	Make use of biofuel and biogas production.	8	APPLY

CO-4	Construct a plan for human genome project.	8	CREATE
CO-5	Utilize the principles of bioinformatics and nanotechnology.	10	APPLY

Course Outcomes (CO)

COs of the course “**BIOSTATISTICS and COMPUTER APPLICATION**”

CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Determine the measures of central tendency and dispersion of the data.	6	EVALUATE
CO-2	Measure the degree of association between two variables using the concept of correlation and regression.	6,7	EVALUATE
CO-3	Apply the mathematical tools (statistics) and physical principles (physics, chemistry) to the analysis of relevant biological situations.	6,7,8	APPLY
CO-4	Illustrate effectively with a range of current and standard software applications and to use advanced spreadsheet, operating system and word processing functions.	6	UNDERSTAND
CO-5	Make use of the basic concepts of internet and the usage of software tools in the calculation of various data.	7,8	APPLY

CP-7	Immunology and Microbiology and Applied Biotechnology Practicals	18UCZO6P1
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CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Identify lymphoid organs in rat.	1	R
CO-2	Experiment with viable cells by serial dilution.	11	Ap
CO-3	Make use of simple staining and Gram staining.	9, 11	An
CO-4	Identify blood groups using kit.	11	Ap
CO-5	Estimate DO and carbondioxide in the given samples.	11	Ap

*PSO-Program Specific outcome; CO-Course Outcome;

Cognitive Level: R- Remember; U-Understanding; Ap-Apply; An-Analyze;E- Evaluate; C-Create

CP- 8	Biostatistics and Computer Applications Practicals	18UCZO6P2
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CO No.	Upon completion of this course, students will be able to:	PSO addressed	Blooms taxonomy classification
CO-1	Analyse mean, median, mode, SD, SE and Variance using neem leaves.	6	An
CO-2	Calculate Chi-square Test.	7	AP
CO-3	Calculate Probability using coins.	11	Ap
CO-4	Create slides using Microsoft powerpoint.	7	C
CO-5	Identify Input and Output devices.	7	R

*PSO-Program Specific outcome; CO-Course Outcome;

Cognitive Level: R- Remember; U-Understanding; Ap-Apply; An-Analyze;E- Evaluate; C-Create