Course Outcomes BSc-1

Clinical Nutrition

Introduction to Food (Major 1)

Course Code - S1 CLND-1T

CO-1	To understand composition of food along with the exploration of scientific knowledge.
CO-2	To appreciate the relationship between food, nutrition, and health.
CO-3	To understand the concept of balanced diet and meal planning.
CO-4	To adopt different cooking methods and methods to prevent nutrient loss.
CO-5	To be able to Plan and prepare meals and nutritious diets for different age groups.

Course Outcomes BSc-1

Clinical Nutrition
Basic Nutrition(Major 2)

Course Code - S1 CLND-2T

CO-1	To be able to apply basic nutrition knowledge in making foods choices and obtaining an adequate diet.
CO-2	To be able to calculate energy requirements and the Recommended Dietary Allowances.
CO-3	To understand the functions and role of macronutrients, their requirements and the effect of deficiency and excess
CO-4	To analyze the role of various minerals and vitamins important in maintaining health and appreciate the importance of water and electrolytes in the human body.
CO-5	To gain competence in connecting the role of various nutrients in maintaining health and learn to enhance traditional recipes

Course Outcomes BSc-1

Zoology

Invertebrata (Major 1)

Course Code – S1-ZOOL-1T

CO-1	To understand the importance of systemics, taxonomy and phylogeny of invertebrates.
	To understand the course of evolution of non-chordate phyla.
CO-2	To understand the various morphological, anatomical structures and functions of animals of different phyla.
CO-3	To get the knowledge about economic, ecological and medical significance of various animals in human welfare.
CO-4	To understand the important parasites and their control measures.
CO-5	To be able to identify invertebrate animals of different phyla and their histology through study of museum specimens and slides

Course Outcomes BSc-1

Zoology

Cell Biology, Reproductive Biology & Development (Major 2)

Course Code – S1-ZOOL-2T

CO-1	To develop deeper understanding of what life is and how it functions at cellular level.
CO-2	To understand the nature and basic concepts of Cell biology, Reproductive and Developmental biology.
CO-3	To understand structure and functions of cell membrane
	and cellular organelles.
CO-4	To understand the importance of latest reproductive trends, & techniques.
CO-5	To understand the general patterns and sequential developmental stages during embryogenesis; and understand how the developmental processes lead to establishment of body plan of multi-cellular organisms.

Course Outcomes BSc-1

Biotechnology

Cell Biology and Biochemistry Major 1

Course Code – SI-BTEC1T

CO-1	To understand basics of cell biology.
CO-2	To appreciate the importance of bonding and special

	arrangement of molecules for proper functioning and stability.
CO-3	To understand and both the physical as well as chemical properties of bio molecules.
CO-4	To be able to perform biochemical testing of clinical significance.
CO-5	To be able to accept openings & opportunities in hospitals and pathological laboratories

Course Outcomes BSc-1

Biotechnology
Microbiology and Immunology Major 2

Course Code - SI BTEC 2T

CO-1	To understand Microbial diversity and nutrition.
CO-2	To understand immune system, its properties and types.
CO-3	To understand immunoglobulin structure, types and functions and can apply the concept of hypersensitivity and vaccination for different diseases.
CO-4	To understand & perform various immunological techniques
CO-5	To be able to perform medical Laboratory pathological investigations

Course Outcomes BSc-1

Botany
Basic Botany (Minor/Elective)

Course Code - S1 BOTA2T

CO1	To understand the diversity of plant
CO2	To understand the economic importance of significance of plants
CO3	To be able to identify locally prevalent microbial disease of plant
CO4	To be able to understand ecological adaptations of plants.

CO5	To be able to understand the changes in morphological, anatomical, and reproductive structure and its relation to evolution.

Course Outcomes BSc-1

Chemistry

Analytical Chemistry (Minor/Elective)

Course Code - S1-CHEM2I

CO-1	1.Basic concepts of Mathematics for Chemists.
CO-2	2. Fundamentals of analytical chemistry and steps involved in analysis.
CO-3	3. Basic knowledge of Computer for chemists Basic Concepts of Chemical equilibrium
CO-4	4. Principles of Chromatography techniques and chromatographic
CO-5	5. Various techniques of spectroscopic analysis.

Course Outcomes BSc-1

Mathematics

Algebra, Vector Analysis and Geometry (Major 1)

Course Code - (S1-MATH 1T)

CO-1	To be able to recognize consistent and inconsistent systems of linear equations by the row echelon form of the augmented matrix, using the rank of matrix.
CO-2	To be able to find the Eigen values and corresponding Eigen vectors for a square
CO-3	To be able to use the knowledge of vector calculus in geometry.
CO-4	To gain knowledge of three dimensional geometrical figures.(Eg ,cone , and cylinder).
CO-5	To be able to use the knowledge of vector analysis, algebra.

Course Outcomes BSc-1

Mathematics

Calculus and differential Equations (Major 2) (Minor/Elective)

Course Code - (S1-MATH 2T)

CO-1	To be able to sketch curves in a plane using its Mathematical properties in the different coordinate systems of reference.
CO-2	To be able to use the derivatives in Optimization. Social sciences. Physics and Life sciences etc.
CO-3	To be able to formulate the differential equations for various mathematical models.
CO-4	To be able to use techniques to solve and analyze various Mathematical models.
CO-5	To be able to analyse various Mathematical derivation and properties.

Course Outcomes BSc-1

Physics

Mechanics and General Properties of matter (Open elective)

Course Code - (S1-PHYS2T)

CO-1	To understand the behaviour of physical bodies.
CO-2	To understand the basic concepts related to the motion of all the objects around us in daily life.
CO-3	To be able to build foundation to various applied field in science and technology especially in the field of mechanical engineering.
CO-4	To be able to understand the basic mathematical methods to solve the various problem in physics.
CO-5	To understand the relative effect and the relation between energy and mass.

Course Outcomes BSc-2

Clinical Nutrition

Human Biochemistry (Major 1)

Course Code – S2 CLND-1T

CO-1	To understand the knowledge of nutrients, their chemistry, metabolic processes and their interrelationship.
CO-2	To understand the biological mechanism and chemical reaction of nutrients.

CO-3	To understand the biological basis of septic clinical interventions in the treatment of septic disease
CO-4	To assess the Biochemical functions of various nutrients.
CO-5	To identify and present relevant information dealing with issues of molecular biology.

Course Outcomes BSc-2

Clinical Nutrition(Major 2)

Human Physiology

Course Code – S2 CLND-2T

CO-1	To acquire knowledge about different organs, their functions, and their relation to different diseases.
CO-2	To understand the functional structure of human body.
CO-3	To develop insight of normal functioning of all the organs and systems of the body and their interactions.
CO-4	To comprehend the Patho-physiology of commonly occurring diseases.
CO-5	To correlate physiology with various disorders and their pathogenesis.

Course Outcomes BSc-2

Zoology

Diversity Of Chordates & Comparative Anatomy (Major 1)

Course Code – S2-ZOOL-1T

CO-1	To understand chordate diversity of animals and their taxonomic position.
CO-2	To be able to identify the morphological and anatomical features and basis of chordate classification
CO-3	To know economic importance, current vulnerability status & develop positive attitude towards conservation of biodiversity.
CO-4	To be able to differentiate the organism belonging to different taxa by studying comparative anatomy
CO-5	To be able to undertake projects, & assignments in studying biodiversity, taxonomy and write the reports.

Course Outcomes BSc-2

Zoology

Physiology & Biochemistry (Major 2)

Course Code – S2-ZOOL-1T

CO-1	To understand how organs function at different levels in from cellular to system levels.
CO-2	To be able to examine internal harmony of different body systems, inherent disorders and deficiencies, which are needed to maintain good health.
CO-3	To understand functions of bio-molecules & metabolism
CO-4	To develop a strong foundation for research & employable skills.
CO-5	To improve the student's perspective of health biology through deep study of physiology.

Course Outcomes BSc-2

Biotechnology
Basic Molecular Biology (Major 1)

Course Code - S2-BTEC 1T

CO-1	To be able to explain cell signaling and proteins/ enzymes involved in the process.
CO-2	To be able to understand mechanism of genetic damage caused by mutation and role of various repair system and negative effects of these mutations.
CO-3	To be able to explain mechanism of DNA replication, transcription, station and other related processes
CO-4	To be able to perform various molecular biology techniques
CO-5	To be able to get selected for medical Laboratory Technique opportunities in hospitals and pathological, research laboratories.

Course Outcomes BSc-2

Biotechnology
Recombinant DNA Technology (Major 2)

Course Code - S2-BTE C2P

CO-1	To understand the various approaches to conduct genetic engineering and their applications in biological research as well as in biotechnology industries.
CO-2	To understand mechanism of genetic damage caused by mutation and role of various repair system a neglecting the effect of these mutation.

CO-3	To understand fundamental principles of molecular biology and its application to Genetic engineering
CO-4	To gain a strong theoretical knowledge of this technology.
CO-5	To develop competency in biological research as well as placement the relevant biotech industry.

Course Outcomes BSc-2

Botany

Industrial Botany (Minor/Elective)

Course Code - S2-BOTA2T

CO1	To gain knowledge on plant and their parts used in various industries.
CO2	Student will get an idea to establish plant's importance to natural product industry.
CO3	The students may become self-reliant by establishing plant based industry
CO4	To gain knowledge to establish a small or large scale plant based industries.
CO5	They will be able to recognise different parts of plant used in plant based industries.

Course Outcomes BSc-2

Chemistry

Transition Elements, Chemi-energetica, Phase Equilibela (Major 2)

Course Code - (S2-CHEM2T)

CO-1	To understand the Traditional Indian Chemistry, chemistry of d & f-block Elements, Basic Concepts of coordination chemistry.
CO-2	To understand the Stereochemistry of Transition Metal Complexes,
CO-3	To understand the Laws of Thermodynamics.
CO-4	To understand the Concept of Phase Equilibrium with reference to Solid Solution, Liquid-Liquid Mixtures, Partially miscible.
CO-5	To understand the Basic Concepts of Electrochemistry.

Course Outcomes BSc-2

Mathematics

Abstract Algebra and Linear Algebra(Major-1)

Course Code - (S2-MATH 1T)

CO-1	To be able to recognize the algebraic structures as a group, and classify them as abelian, cyclic and permutation groups, etc.
CO-2	To be able to link the fundamental concepts of groups and symmetrical.
CO-3	To be able to analyze the subgroups of cyclic groups. Explain the significance of the notion of cosset, normal subgroups, and quotient groups.
CO-4	To understand the fundamental concept of rings, fields, subrings.
CO-5	To be able to analyse whether a finite set of vectors in a vector space is linearly independent.

Course Outcomes BSc-2

Mathematics

Advanced Calculus and Partial Differential Equations(major-2/minor/effective)

Course Code - (S2-MATH 2T)

CO-1	To understand many properties of the real liner and sequences.
CO-2	To be able to calculate the limit superior, the limit inferior, and the limit of a bounded sequence.
CO-3	To be able to apply the mean value theorems and Taylor's theorem.
CO-4	To be able to apply the various tests to determine convergence and absolute Convergence of an infinite series of real numbers.
CO-5	To be able to Formulate, classify and transform partial differential equations into canonical form.

Course Outcomes BSc-2

Physics

Electricity Magnetism and Electromagnetic (major-2, minor and elective)

Course Code - (S2- PHYS 2T)

CO-1	To understand the basic concepts of electricity and magnetism and their applications.
CO-2	To be able to apply various network theorems and their applications in electronics, electrical circuit Analysis, and electrical machines.
CO-3	To understand the construction and working of ballistic galvanometer and cathode ray oscilloscope.
CO-4	To understand the concept of electromagnetic waves and their reflection and refraction from a plane surface.
CO-5	To be able to understand the galvanometer and ray oscilloscope and it's concept.

Course Outcomes BSc-3

Clinical Nutrition

Dietetics-I (Major 1)

Course Code – S3 CLND-3D

CO-1	The student should be able to define the etiological, physiological and metabolic disturbances of acute and chronic disease and the needs of the patients.
CO-2	To design composition of different types of diet for patients having acute and chronic illness.
CO-3	To apply the principles of therapeutic practices.
CO-4	To be able to work as Dietician in Hospitals & fitness centers
CO-5	To be able to work as Diabetes Educator.

Course Outcomes BSc-3

Clinical Nutrition

Dietetics-II (Major 1)

Course Code – S4 CLND-4D

CO-1	To gain skill in planning, preparation and modifications of diet according to the disease.
CO-2	To understand the role and importance of food in various disease and acquire the skill in planning a diet for the patient.

CO-3	To fulfill the nutrient needs for the patient Prepare diet prescription.
CO-4	To be able to work as nutrition consultant for Industrial Food Management System.
CO-5	To be able to communicate the role of nutrition in prevention and management of disease.

Course Outcomes BSc-3

Zoology

Aquaculture (Major 1)

Course Code – S3-ZOOL-1D

CO-1	To be able to recognize the different economically important fishes and other culturable fauna.
CO-2	To identify the details of different steps involved in Aquaculture.
CO-3	Identify the profitability of the culture and identify the fields of Aquaculture which generate self-employment.
CO-4	Learn the required things in the setup of an aquarium and its maintenance.
CO-5	To be able to maintain fishes in an aquarium.

Course Outcomes BSc-3

Biotechnology

Industrial Biotechnology (Major 1)

Course Code - (S3-BTEC 1D)

CO-1	To understand the concept of industrial and human beneficial living organism, their exploitation and application
CO-2	To be updated with industrially important microorganisms, recent developments in fermentation processes and various optimization strategies at fermenter level.
CO-3	To be able to design, types of fermenter and various critical components of bioreactors.

Course Outcomes BSc-3

Biotechnology

Agricultural Biotechnology (Major 2)

Course Code - (S3-BTEC 2D)

CO-1	To understand the fundamentals of the agricultural biotechnology such as organic farming, agriculture biology and techniques.
CO-2	To understand the microbiology of soil, its microbial diversity of soil & importance of organic farming..
CO-3	To understand the process & apply the compositing vermiculture and methane production techniques.
CO-4	To be able to apply the techniques learned in molecular biology
CO-5	To understand the process & apply bio fertilizer & bio-pesticide development.

Course Outcomes BSc-3

Zoology

Wild Life Conservation And Management (Major 2)

Course Code – S3-ZOOL-2D

CO-1	To identify and realize the values of wild animals, forests and the rare, threatened and endangered species of wildlife.
CO-2	To gain knowledge of conservation of a wild animal
CO-3	To identify the role of local and tribal communities in protected areas.
CO-4	To know the opportunities of employment in the field of wild life.
CO-5	To develop an understanding for wise use and of natural resources.

Course Outcomes BSc-3

Botany

Ethno-botany (Minor/Elective)

Course Code - S3. BOTA2T

CO1	To understand the place of various plants in culture and traditions of native communities

CO2	To understand the traditional medicine
CO3	To understand important of plant and their relationship with human beings.
CO4	To be able to record the botanical name of crops
CO5	To be able to Interpret the data available in traditional knowledge.

Course Outcomes BSc-3

Chemistry

Pharmaceutical and Medicinal Chemistry (Minor/effective)

Course Code - (S3-CHEM2T)

CO-1	To understand importance of pharmaceutical chemistry and pharmacopeia.
CO-2	To be able to interpret intellectual property rights, patents, trademark and copyright .
CO-3	To understand, define & classify the Drugs with examples and structures.
CO-4	To be able to describe the overall process of drug discovery and the role played by medicinal chemistry in this process.
CO-5	To be able to co-relate the structure and physical properties of drugs to their pharmacological activity. Explain physio-chemical properties related to QSAR.

Course Outcomes BSc-3

Mathematics

Numerical Methods and Scientific Computation. Discipline Specific Elective (DSE) (Group-A. Paper-1

Course Code - (S3-MATH 1T)

CO-1	To be able to understand numerical methods to find the solution of a system of linear equations.
CO-2	To be able to compute interpolation value for real data.
CO-3	To be able to find quadrature by using various numerical methods.
CO-4	To be able to solve system of linear equations by using various numerical techniques.

CO-5	To be able to obtain solutions of ordinary differential equations by using numerical methods.

Course Outcomes BSc-3

Mathematics

Elements of Discrete Mathematics. Discipline Specific Elective (DSE) (Group-A, Paper-II).

Course Code - (S3-MATH 2T)

CO-1	To be able to apply the Boolean algebra, switching circuits and their applications.
CO-2	To be able to minimize the Boolean Function using Karnaugh Map.
CO-3	To be able to understand the lattices and their types.
CO-4	To be able to understand graphs, their types and its applications in study of shortest path algorithms.
CO-5	To be able to test whether two given graphs are isomorphic.

Course Outcomes BSc-3

Physics

Quantum Mechanics, Solid State Physics and Devices Lab (Minor/elective)

Course Code - (S3PHYS2T)

CO-1	To be able to determine Planck's constant and Rydberg's constant using different methods. Draw the characteristic curves of different diodes and transistors. Amplifiers and oscillators.
CO-2	To be able to determine electronic charge and specific Charge of electron.. Understand the working principle.
CO-3	To be able to determine the first excitation potential of gas (argon) by Franck Hertz experiment.
CO-4	To be able to determine constant deviation & operate spectrometer and Four-Part Interferometer.
CO-5	To develop the practical knowledge about solid-state physics and electronic devices.