Indira Gandhi Kala Mahavidyalaya, Ralegaon Dist. Yavatmal (MS)
Department of chemistry

Programme Outcomes (POs), Programme Specific Outcomes (PSOs)
and Course Outcomes (Cos)

Bachelor of Science

Programme Outcomes

PO1: To introduce the basic & fundamental of chemical science education
PO2: To develop interdisciplinary approach amongst students
PO3: To inculcate sense of social, scientific responsibilities and environmental awareness
PO4: To help student's build-up a progressive and successful career in academic and industry
PO5: To motivate the students to contribute in the development of nation

Programme Specific Outcomes

The students completing B.Sc with chemistry will be able to
Have a firm foundation in the fundamentals and application of chemicals and scientific theories including in inorganic, organic, physical, industrial and analytical chemistry and functional knowledge of all core areas of chemistry.

PSO1: Identify and become familiar with the scope, methodology and application of modern chemistry and learn to appreciate its ability to explain various aspects.
PSO2: Understand theoretical and practical concepts of instruments that are commonly used in most chemistry fields.
PSO3: Design and carry out scientific experiments and record the results of such experiments.
PSO4: Understand safety of chemicals, transfer and measurement of chemical, preparation of solutions, and using physical properties to identify compounds and chemical reactions.
PSO5: Explain how chemistry is useful for social, economic and environmental problems and issues facing our society in energy, medicine and health.

Course Outcomes

Course: Paper I (Inorganic, Organic and Physical Chemistry)

By completion of this course the students will be able to

CO1: Describe periodic properties of elements, understand formation of ionic bonding & factors affecting ionic bond formation.
CO2: Understand electronic configuration, ionization energy, oxidation state of S and P block elements.
CO3: Identity electronic displacement taking place in the molecule by some effects, generation of reactive intermediates, their stability and reactions.
CO4: Interpret aromaticity and based on that distinguish aromatic, anti-aromatic and non- aromatic compounds, able to know the structure of benzene and its electrophilic substitution reaction.
CO5: Understand limitation of first law of thermodynamics and needs of second law of thermodynamics and know the concept of entropy.
CO6: Know the postulates of kinetic theory of gases, understand phase rule and application of phase rule

on water system and sulphur system.

Course: Paper-II (Inorganic, Organic and Physical Chemistry)

By completion of this course the students will be able to

CO1: Define polarization and its application, directional nature of covalent bond, concepts of hybridization and know the theory of acids and bases.
CO2: Understand requirement of good solvent and classification of solvents.
CO3: Describe synthesis and chemical reactions of alkyl halides, aryl halides and alcohol.
CO4:Understand methods of formation of phenols, ether and epoxide and their reactions catalyzed by acid and alkali.
CO5: Identify polar and non polar molecules and know paramagnetic and diamagnetic substances.
CO6: Describe rate of reaction in terms of change in concentration and how the rate of chemical reaction changes as a function of time.

Course: Paper III (Inorganic, Organic and Physical Chemistry)

By completion of this course the students will be able to
CO1: Understand covalent bonding, metallic bonding and describe structure of molecule with regular & distorted geometry by using VSEPR theory and know about gravimetric and volumetric analysis.
CO2: Describe various reactions, acidity and reactivity involved in aldehydes ketone and carboxylic acid.
CO3: Identify importance of stereochemistry in organic chemistry & apply the knowledge gained to a variety of chemical problems.
CO4: Define work function, Gibbs free energy and application of phase equillibria in miscible and immiscible liquids.
CO5: Understand determination of surface tension, viscosity and effects of temperature on surface tension and viscosity.

Course: Paper-IV (Inorganic, Organic and Physical Chemistry)

By completion of this course the students will be able to
CO1: Understand chemistry of transition elements with reference to electronic configuration, atomic and ionic size, ionization energy and know about extraction of elements.
CO2: Define inner transition elements and know their properties and general principle of metallurgy.
CO3: Describe reactions of poly nuclear hydrocarbon, synthesis of higher acids with the help of reactive methylene compounds, constitution of glucose, conversion of glucose to fructose etc.
CO4: Know synthesis of aromatic nitro compounds, amino compounds and diazonium salts and their reactions.
CO5: Understand colligative properties of dilute solution and know to determination of molecular weight of solute.
CO6: Identity symmetry in crystal and elements of symmetry in crystals, also know the laws of symmetry.

Course: Paper-V (Inorganic, Organic and Physical Chemistry)

By completion of this course students will be able to
CO1: Understand key features of co-ordination compounds including variety of structures and know the concepts of oxidation number, coordination number, ligands, chelates and stability of complex.
CO2: Knowledge of crystal field theory to understand splitting in complexes and factors affecting in crystal field splitting.

CO3: Understand heterocyclic compounds especially about their synthesis, reactivity and application of heterocyclic compound in advanced chemical synthesis.
CO4: Classify dyes on the basis of structure and mode of application, preparation and uses of dyes, drugs and pesticides.
CO5: Understand photochemical and thermal reactions by interaction of radiation with matter. CO6: Identify the electric and magnetic properties of radiation and know the spectroscopic techniques for understanding the atomic structure and structure of molecule.

Course: Paper-VI (Inorganic, Organic and Physical Chemistry)
By completion of this course students will be able to
CO1: Understand thermodynamic and kinetic stability of complexes and geometry of complexes. Know about spectrophotometric technique for determination of concentration of metal ion. Define and classify chromatographic techniques.
CO2:Know basics of organometallic chemistry, inorganic polymers and bio-inorganic chemistry. CO3: Identify structure of compound by use of electronic spectroscopy and infrared spectroscopy and know how to interpret spectra.
CO4: Understand the phenomena of Nuclear Magnetic Resonance spectroscopy and mass spectrometry.
CO5: Understand limitation of classical mechanics at molecular length scales and difference between classical and quantum mechanics.
CO6: Identify inter conversions of chemical energy and electrical energy by knowing electrochemistry and application of radio isotopes in industry, agriculture, medicine & biosciences.

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Indira Gandhi Kala Mahavidyalaya
Ralegaon

Indira Gandhi Kala Mahavidyalaya, Ralegaon

Department of Mathematics

Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and

Course Outcomes (Cos)

Bachelor of Science

Programme Outcomes

PO1: To introduce the fundamentals of science education.

PO2: To enrich students' knowledge in all basic sciences.

PO3: To develop interdisciplinary approach amongst students .

PO4: To inculcate sense of scientific responsibilities and social & environment awareness.

PO5: To help student's build-up a progressive and successful career in academics and industry

.PO6: To motivate the students to contribute in the development of Nation.

Programme Specific Outcomes

PSO1: Students will demonstrate an understanding of the common body of knowledge in math's and demonstrate the ability to apply analytical and theoretical skill to model and solve the mathematical problems .

PSO2: Understand the nature of mathematical proofs and be able to write clear and concise proofs.

PSO3: Be able to communicate effectively in oral and written form .

PSO4: Be able to write simple computer programs to perform the mathematical competition.

PSO5: Learn about application of mathematics in other field and gain experiences in mathematical modeling .

PSO6: Develop the ability to read, understand and use basic definition in linear and abstract algebra and real analysis and be able to prove simple consequence of this definition .

PSO7: Student learns to communicate idea effectively and to digest new information and concepts independently.

PSO8: Students are encouraged to develop intellectual and become involved with professional organization.

PSO9: Communicate mathematical ideas both orally and in writing.

PSO 10: Investigate and solve unfamiliar math's problems.

PSO11: Demonstrate the proficiency in writing proofs.

Course Outcomes

Course: Algebra & Trigonometry

By the completion of this course the student will be able to

CO1: Understand the concepts of Hyperbolic and inverse hyperbolic function, Relation between function and Hyperbolic function, De Moivre's theorem and its application.

CO2: Understand the concept of summation series, Gregory series, Euler's series, Machin's series, Rutherford's series.

CO3: Learn about Elements of quaternion: complex conjugate of a quaternion, norm, inverse, quaternion as a rotation operator, interpretation, a special quaternion product, operator algorithm, quaternion to matrices.

CO4: Deeply know about polynomial equation, its roots nature, solve some quadratic, biquadratic polynomial, Cardon method to solve cubic equations ,

CO5: Introduction and explanation of Matrices, Rank, Eigen values and Eigen vectors, Caley Hamilton Theorem etc.

Course: Differential and Integral Calculus

By the completion of this course the student will be able to Know

CO1: Definition of the limit of a function, Uniqueness of limit , basic properties of limits, continuous functions ,classification of discontinuities, Intermediate value theorem.

CO2: Differentiability, successive differentiation, Leibnitz theorem, indeterminate forms and L'Hospital rule. Rolle's theorem, Lagrange's mean value theorem, Cauchy's mean value theorem , Maclaurin and Taylor series expansions.

CO3: Partial derivatives and differentiation of real valued function of two variables, homogeneous functions, Euler's theorem on homogeneous functions.

CO4: Integration of some standard form ,reduction formulae Walli's formula, quadrature, rectification,etc.

Course: Differential Equations· Ordinary and Partial

By the completion of this course the student will be able to know

CO1: Degree and order of a ordinary differential equation, linear differential equations and differential equations reducible to the linear form. Exact differential equations. Differential equations of first order and higher degree, Orthogonal trajectories.

CO2: Second order linear differential equations with constant coefficients, homogeneous Linear ordinary differential equations, reducible to homogeneous differential Equations.

CO3: Reduction of order, transformation of the equation by changing the dependent variable and independent variable, normal form, method of variation of parameters. Ordinary simultaneous differential equations.

CO4: Formation of partial differential equations, partial differential equations of the first order, total differential equation . Lagrange's method, some special types of equations which can be solved easily by methods other than the general method.

CO5: Compatible differential equations. Charpit's general method of solution, partial differential equations of second and higher orders. Homogeneous and non-homogeneous equations with constant coefficients.

Course: Vector Analysis and Solid Geometry

By the completion of this course the student will be able to know

CO1: Scalar and vector product of three vectors, product of four vectors, vector differentiation and vector integration.

CO2: Space curve t, n,b vectors, fundamental planes, curvature, torsion, Frenet Serret formulae.

CO3: Gradient, divergence and Curl, directional derivative, line integral(existence and evaluation),work done, Greens theorem.

CO4: Sphere: Different forms of sphere, section of a sphere by a plane, sphere through a given circle, intersection of sphere and a line, orthogonal sphere and condition of orthogonality.

CO5: Cone : The equation of a cone with a guiding curve, cone with vertex and origin, right circular cone. Cylinder: equation of right circular cylinder

Course: Advanced Calculus

By the completion of this course the student will be able to know

CO1: Sequence, positivity theorem, sandwich theorem, monotonic and bounded sequence, Cauchy sequence.

CO2: Series: Series of nonnegative terms, convergence of geometric series and the series Comparison tests, Cauchy's integral test, conditional convergent, Leibnitz rule,

CO3: Limit and continuity of functions of two variables, Taylor's theorem for function of two variables.

CO4: Maxima and minima of two variables, Lagrange's multipliers method, Jacobians.

CO5; Double integral (definition and evaluation technique)

Course: Elementary Number Theory

By the completion of this course the student will be able to know

CO1: Divisibility, Euclidean algorithm, greatest common divisor , linear combination , least common multiple.

CO2: Prime numbers, the fundamental theorem of arithmetic or unique factorization theorem, Fermat numbers, linear Diophantine equation.

CO3: Congruence, special divisibility test, linear congruence, Chinese remainder theorem.

CO4: Arithmetic functions, Euler's theorem, the functions, Mobius function.

CO5: Primitive roots, primitive roots for prime, polynomial congruence.

Course: Modern Algebra: groups and rings

By the completion of this course the student will be able to know

CO1: Group: Definition, subgroups, cyclic groups, permutation groups

CO2: Cosets and normal subgroups quotient group.

CO3: Homomorphism and isomorphism Fundamental theorem on homomorphism of a group, natural homomorphism, second isomorphism theorem, third isomorphism theorem.

CO4: Ring, , subring, characterization of ring, integral domain, field, subfield and prime field.

CO5: Ideal, quotient ring, ring homomorphism.

Course: Classical Mechanics

By the completion of this course the student will be able to know

CO1: Constraints, generalized coordinates, D'Alembert's principle and Lagrange's equations of motion.

CO2: Central force motion: Areal velocity, equivalent one body problem, central orbit, Virial theorem, Kepler's laws of motion.

CO3: Calculus of variation: functional, externals, Euler's differential equation, Hamilton's principle, procedure, least action principle.

CO4: Rigid body, generalized co-ordinates of a rigid body, Eulerian angles, Euler's theorem, finite rotations, infinitesimal rotations.

Course: Mathematical Analysis

By the completion of this course the student will be able to know

CO1: Riemann Integral monotonic functions, the fundamental theorem of integral calculus, mean value

CO2: Improper integrals and their convergence, Beta and gamma functions.

CO3: Continuity and differentiability of complex function, analytic function, Cauchy- Riemann equations and harmonic and conjugate functions, Milne-Thomson method.

CO4: Elementary function, mapping by elementary function, Mobius transformation, fixed point, cross ratio, inverse and critical points, conformal mapping.

CO5: Metric spaces, neighborhood, limit point, interior point, open and closed sets, Cauchy sequences, completeness.

Course: Mathematical Methods

By the completion of this course the student will be able to know

CO1: Legendre's equation, Bessel's equation Strun-Liouville boundary value problem.

CO2: Fourier series, Eulers Coefficient , Fourier series for odd and even functions, half-range Fourier sine series and half-range Fourier cosine series.

CO3: Laplace transform: Fourier Transform

Course: Linear Algebra

CO1: Vector Space , Subspace , Linearly Independent and Linearly Dependent , Basis and Dimensions ,Rank Nullity Theorem , Change of Basis , Linear transformations, Dual Spaces , By dual space , adjoint of linear transformation, Inner Product Spaces, Schwarz inequality ,Modules its Definition, example and properties

Course: Graph Theory

CO1: To understand Graph. Application of graphs, finite and infinite graphs, incidence and degree, isolated vertex, pendent vertex and null graph, isomorphism, subgraphs, walks, path and circuits, connected graphs and components, Euler graph, operation on graphs, Hamiltonian paths and circuits, travelling sales man problem. Trees, some properties of trees, Fundamental circuits, Cutsets, Some properties of cutesets, Kurutowski's two graphs, different representation of planar graph, Matrix and Graph.

Course: Special Theory of Relativity

CO1: To understand Review of Newtonian Mechanics. Michelson- Morley Experiment , Galilean Transformation , Lorentz transformation , Plane Contraction , Time Dilation , Relativistic Kinematics Geometrical representation of space- time, Tensor Calculus , Minskiwcoan geometry, Einstein mass relation , Four Velocity , Four Acceleration ,Energy momentum tensor , Relativistic Mechanics Electromagnetism,

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Department of Physics

POs, PSOs and COs

Bachelor of Science

Programme Outcomes (PO)

PO1: To introduce the basic science education.

PO2: To enhance students' knowledge in all basic sciences.

PO3: To develop interdisciplinary attitude amongst students.

PO4: To teach sense of scientific accountabilities and social & environment awareness.

PO5: Help students to develop a progressive and successful career in academics as well as any field of science.

PO6: To motivate the students to contribute in the development of Nation.

Physics

Programme Specific Outcomes

PSO1: To help students in understanding the concepts of Physics

PSO2: To improve scientific attitude among the students and to give prominence on the development of experimental skills, experimental method, data analysis, calculations etc

PSO3: To understand the theoretical development of the subject and thereby develop the interest in the subject.

PSO4: To develop the scientific awareness among the students.

PSO5: To make interest in the subject and advance technological feature through projects, models, demonstrations, etc.

PSO6: To make students understand the role and contribution of Physics in the present day science and technology

PSO7: To encourage students to make career in Physics.

Course Outcomes

Course: Mechanics, Properties of matter, waves and oscillations

By the completion of this course the student will be able to

CO1: Understand the concepts of gravitation and planetary motions.

CO2: Describe the rotational motion of rigid body and moment of inertia, concept of liner and angular momentum.

CO3: Understand simple harmonic oscillations, damped harmonic oscillations, forced harmonic oscillations and explain the theory of simple pendulum, compound pendulum and Kater's pendulum.

CO4: Describe the concept of combination of S.H.M.'s and Lissajous figures, properties, production and applications of ultrasonic waves

CO5: Knows in details the elastic constants, properties of elastic bodies and different methods to measure elastic constants.

CO6: Introduction and explanation to kinematics of moving fluids, Bernoulli's theorem and surface of tension.

Course: Kinetic theory, thermodynamics and electric c rrent By the completion of this course the student will be able to

CO1: Describe details regarding kinetic theory of gases, transport phenomenon in gases like transport of mass, momentum and energy.

CO2: Explain the basic laws of thermodynamics, different thermodynamic processes, concept of internal energy, entropy and S-T diagram.

CO3: Describe Joule-Thomson effect, liquefaction of hydrogen and helium gases, thermodynamical systems, variables and relations.

CO4: Understand the motion of charge particles in electric and magnetic fields, working of mass spectrograph, linear accelerator and cyclotron.

CO5: Understand basic network theorems and construction and working of Ballistic Galvanometer; concepts of varying currents through different circuits.

CO6: Understand the concepts of alternating current with various combinations of resistor, capacitor and inductor, theory of transformer and energy losses in transformer.

Course: Mathematical background, Solid state electronic devices and special theory of relativity

By the completion of this course the student will be able to

CO1: Focuses on mathematical background and laws of electrostatics.

CO2: Explain basic terms of electrostatics, Maxwell's equations and Poynting vector.

CO3: Understand the semiconductor Physics, hall effect and semiconducting devices like diode,

LED, BJT, J-FET, with emphasis on parameters and applications of OP-AMP.

CO4: Explain special theory of relativity, length contraction, time dilation and energy-mass relation.

CO5: Understand the structure of earth, types and causes of earthquakes, intensity of earthquakes, scattering, absorption and reflection of solar radiation by atmosphere and mechanism of cloud formation.

Course: Optics, Acoustics and renewable sources of energy

By the completion of this course the student will be able to

CO1: Understand geometrical optics and theory of interference of light, formation of Newton's ring, applications of Newton's rings.

CO2: Understand phenomenon of diffraction of light, Fresnel and Fraunhofer diffraction, construction and elementary theory of plan diffraction grating; use the laboratory techniques to determine wavelength of monochromatic source of light and resolving power of grating.

CO3: Understand concept of polarization of light, double refraction, production and detection of polarized light, Phase retardation plates.

CO4: Understand basic concepts, construction, working and applications of different types of LASER.

CO5: Understand the construction, types of fiber optics and role of fiber optics in communication system.

CO6: Understand the various renewable like solar energy, wind energy, ocean energy, geothermal energy, hydrogen energy system and fuel cell, solar energy storage and solar photovoltaic systems- concept, operating principle and applications.

Course: Quantum mechanics, Atomic and molecular spectroscopy, Nuclear Physics,Hybrid parameters and Oscillators

By the completion of this course the student will be able to

CO1: Understand origin of quantum mechanics. Describe concept of wave packet, Davisson Germer experiment, Heisenberg's Uncertainty principle, Thought experiment and Gamma ray microscope.

CO2: Know the Schrodinger equation and its applications, Schrodinger time dependent and time independent equations, Eigen functions and Eigen values and qualitative analysis of zero point energy.

CO3: Understand vector atom model, Stern-Gerlach experiment and different types of coupling. Know the properties and types of X-ray, experimental arrangement for Raman Effect.

CO4: Know about detection of charge particles by using G. M. counter, concept of nuclear physics like, Alpha decay, Beta decay, Concept of nuclear fission and fusion and construction of nuclear reactor.

CO5: Understand hybrid parameter, CE amplifier, Bias stability, Thermal runaway, Noise and distortion in amplifier.

CO6: Know properties, advantage and applications of negative feedback. Describe the construction and working of various types of oscillators and multivibrators.

Course: Statistical Mechanics and Solid State Physics

By the completion of this course the student will be able to

CO1: Understand basic concept of statistical mechanics, principle of equal priori probabilities and Boltzman entropy relation, Maxwell-Boltman statistics, Bose-Einstein statistics, Fermi-Dirac statistics and their applications.

CO2: Understood amorphous and crystalline solids, Diffraction of X-rays by crystals, Bragg's law, experimental determination of lattice parameters of NaCl crystal, Defects in solids.

CO3: Explain free electron theory, density of states, concept of Fermi energy and Band structure.

CO4: Explain diamagnetic, Paramagnetic, ferromagnetic materials; Classical Langevin's theory of dia and paramagnetic domains, Curie's law, Weiss's law and hysteresis.

CO5: Understand superconductors and its type, Meissner effect, Applications of superconductors, Nanomaterials, effect of reduction of dimensions on physical properties, applications of nanomaterials in different fields.

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Department of Botany

POs, PSOs, COs

Programme Outcomes

Bachelor of Science

PO 1: To introduce the student with basic fundamentals in science and technology.

PO 2 : To enrich student's knowledge in all basic science.

PO 3: To develop interdisciplinary approach among students.

PO 4: To inculcate sense of science of scientific responsibilities and social and environmental awareness.

PO 5: To help students to build up a progressive and successful career in academics.

PO 6: To motivate the students to contribute in the development of nation.

Programme Specific Outcome

Botany

PSO-1: To provide basic knowledge of plant science and life science.

PSO-2: To demonstrate working knowledge of advance biological science.

PSO-3: To demonstrate application of botany in agriculture ,industry, medicine, food industry,

PSO-4: To make students able for national level examination to pursue higher education.

PSO-5: To guide the students to build career in botany and allied sciences.

PSO 6: Motivates the students to preserve plants.

Course Outcomes

Course: Diversity and Applications of Microbes and Cryptogams

CO 1: Student will know the structure ,reproduction and diversity of Microbes and Lower plants.

CO 2: Student will able to classify the lower plants.

CO 3: Student will introduce with role of microbes and cryptogams in medicine, industries, agriculture.

CO 4: Student will study recent trends in application of microbes and cryptogams.

CO 5: Student will able to identify diseases causes by microbes and fungi.

Course: Gymnosperm, Morphology of Angiosperm and Utilization of plants

CO 1: Student will introduce to historical events in plants evolution.

CO 2: Student will know the diversity, reproduction in gymnosperm with respect to their with Angiosperms.

CO 3: Student will easily identify plants on the basis of morphological characters of Angiospermic plants.

CO 4: Student will know about economically important plants

CO 5 : Student will know about medicinally important plants.

Course : Angiosperm Systematics, anatomy and embryology

CO 1: Student introduce with how evolution of angiosperms occurred?.

CO 2. Student will able to explain concept of taxonomy, herbarium, biodiversity of plants.

CO 3: Student will know types of plant classification and systematic position of some families.

CO 4: student will introduce with taxonomist.

CO 5: Student will able to identify types of tissues and able to observe normal and abnormal secondary growth in plants.

CO 6: Student will able to explain sexual cycle of plants i.e. from development of gametophytes to entire plant.

Course : Cell biology, Genetics and Biochemistry.

CO 1: Student will introduce with the concept of cell and cell cycle.

CO 2: Student will know the structure and functions of cell organelles.

CO 3: Student will introduce with basic concept and history of genetics.

CO 4: Student will able to study gene interaction , gene and chromosomal mutation.

CO 5 : Student will introduce with mendel's law of genetics.

CO 6: Student will know roles of biomolecule

CO 7: Student will know mechanism of actions of enzymes.

Course : Plant Physiology and Ecology.

CO 1: Student will introduce with apparatuses of photosynthesis and respiration.

CO 2: Student will study the factor affecting the process of photosynthesis and respiration.

CO 3: Student will study interrelation of organisms with their environment.

CO 4: Student will study role of biotic and abiotic factors in environment.

CO 5: Student will able to study food chain, food web and energy flow model in ecosystems.

CO 6: Student will study the morphological and anatomical adaptation in hydrophytes and xerophytes.

Course: Molecular biology and Biotechnology

CO-1: Students will know .why DNA is the genetic material?

CO-2: Students will understand the Gene Structure and Expression

CO-3: Students will know how Gene Expression is regulated

CO-4: Students will learn techniques in Genetic Engineering

CO-5: Students will learn Applications of plant biotechnology and Plant tissue culture

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Department of Zoology

POs, PSOs, COs

Programme Outcomes

Bachelor of Science

PO 1: To introduce the student with basic fundamentals in science and technology.

PO 2 : To enrich student's knowledge in all basic science.

PO 3: To develop interdisciplinary approach among students.

PO 4: To inculcate sense of science of scientific responsibilities and social and environmental awareness.

PO 5: To help students to build up a progressive and successful career in academics.

PO 6: To motivate the students to contribute in the development of nation.

Programme Specific Outcome

Zoology

PSO-1: To provide basic knowledge of plant science and life science.

PSO-2: To demonstrate working knowledge of advance biological science.

PSO-3: To demonstrate application of Zoology in agriculture, industry, medicine, food industry,

PSO-4: To make students able for national level examination to pursue higher education.

PSO-5: To guide the students to build career in Zoology and allied sciences.

PSO 6: Motivates the students to conserve Animals.

Course Outcomes

Course: LIFE AND DIVERSITY OF NON-CHORDATA

CO 1: Student will know the structure, reproduction and diversity of Lower Animals.

CO 2: Student will able to classify the lower Animals.

CO 3: Student will introduce with role of Invertebrates in Ecosystem.

CO 4: Student will study recent trends in application of Larval forms.

CO 5: Student will able to identify animals up to class.

Course:

CELL AND DEVELOPMENTAL BIOLOGY

CO 1: Student will introduce with the concept of cell and cell cycle.

CO 2: Student will know the structure and functions of cell organelles.

CO 3: Student will introduce with basic concept and history of genetics..

CO 4: Student will know roles of cell organells

Course : LIFE AND DIVERSITY OF CHORDATA AND CONCEPT OF EVOLUTION

CO 1: Student introduce with how evolution of Animals occurred?.

CO 2. Student will able to explain Process of Evolution.

CO 3: Student will know types of Animal classification and systematic position of some families.

CO 4: student will introduce evolution of Man.

CO 5: Student will able to identify types of fossils and able to observe types.

Course : ADVANCED GENETICS AND ANIMAL ECOLOGY.

CO 1: Student will introduce with the concept of Genetics.

CO 2: Student will know the structure and functions of Ecosystem.

CO 3: Student will introduce with basic concept and history of genetics.

CO 4: Student will able to study gene interaction , gene and chromosomal mutation.

CO 5 : Student will introduce with mendel's law of genetics.

CO 6 : Student will able to study food chain, food web and energy flow model in ecosystems.

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Course : ANIMAL PHYSIOLOGY AND ECONOMIC ZOOLOGY.

CO 1: Student will introduce with Animal Physiology.

CO 2: Student will study the factor affecting the process of respiration, circulation, muscle and neural. physiology.

CO 3: Student will study interrelation of systems with their environment.

CO 4: Student will study role of beneficial and harmful insects.

CO 5: Student will know Aquaculture and its application.

CO 6: Student will study the morphological and anatomical adaptation in Animals.

Course: Molecular biology and Biotechnology

CO-1: Students will know .why DNA is the genetic material?

CO-2: Students will understand the Gene Structure and Expression

CO-3: Students will know how Gene Expression is regulated

CO-4: Students will learn techniques in Genetic Engineering

CO-5: Students will learn basics of Immunology.

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Bachelor of Arts, Programme Outcomes

PO1: Give information and comprehension of different fields of concentrate in central regimens disciplines in arts and humanities

PO2: Develop critical and analytical skills for the identification and resolution of problems within changing social, linguistic and literary contexts

PO3: Comprehension of the overall ideas and standards of chosen areas of concentrate outside main regimens disciplines of the humanities, sociologies and languages.

PO4: Work with confidence, independence, self-reflection and imagination to confront afflictions in the work and individual life

PO5: Encourage students to analyse the problems and apply their knowledge for remedies thereof

PO6: Develop the language and relational abilities for explanation of their own thoughts.

Bachelor of Arts, Programme Outcomes

CO1. Exhibit capability both in oral and written correspondence .

CO2. Train the students for self employment.

CO3. Show a mindfulness and obligation regarding the climate.

CO4. Handle and learn Social, Cultural, Historical and Literary background of the best compositions.

CO5. Grasp and learn Social, Cultural, Historical and Literary background of the greatest writings.

CO6. Get ready for different sorts of competitive examinations.

CO7. Develop critical & analytical thinking skills and abilities to conceptualize problems analytically.

CO8. Become a leader of the nation with actual constitutional knowledge.