Program Name B.Sc. (Honours) Chemistry

PROGRAM OUTCOME (PO)

PO1. Students learn basics of Chemistry
PO2. Students learn basics of Elements and their uses
PO3. Students learn about physical and chemical properties of matter
PO4. Students learn about preparation and properties of carbon compounds
PO5. Students learn how to use the chemistry in day to day life

C 1: Inorganic Chemistry-I	**CO1: Recapitulation of Bohr's theory, its limitations and wave theory** **CO2: To study the periodicity of elements** **CO3: Understanding of Chemical Bonding** **CO4: Details of ionic, covalent and metallic bonding**
C II: Physical Chemistry I	**CO1: To study the basic concepts including pastulates and derivations in gaseous state** **CO2: To study the qualitative treatment of structure and physical properties of liquids.** **CO3: To study the nature of solid state and their structure determination including symmetry elements** **CO4: To study the ionic equilibrium in relation to acid-base and solubility.**
C III: Organic Chemistry I	**CO1: Recapitulation of basics of organic chemistry** **CO2: Basic knowledge of Stereochemistry including optical activity** **CO3: Chemistry of aliphatic compounds containing single and multiple bonding** **CO4: Aromaticity, preparation and properties of aromatic compounds**
C IV: Physical Chemistry II	**CO1: Study about basics and Law's of chemical thermodynamics** **CO2: Study about thermodynamics of systems of variable compositions** **CO3: Study of thermodynamics in relation to chemical equilibrium** **CO4: Study of thermodynamice of solutions and Colligative properties**
C V: Inorganic Chemistry-II	**CO1: General principals of metallurgy, methods of purification of metals** **CO2: General characteristics, reactions, common features of s-block elements** **CO3: General properties of p-block elements including structure, bonding and properties.** **CO4: Preparation, properties, structure and uses of the compounds like Borazine, Silicates, Interhalogens etc.**
C VI: Organic Chemistry II	**CO1: Preparation and properties of halogenated hydrocarbons** **CO2: Preparation and properties of alcohols, phenols, ethers and epoxides** **CO3: Preparation and propertiesof aldehydes and ketones** **CO4: Preparation and properties of carboxylic acids and their derivatives**
C VII: Physical Chemistry III	**CO1: Detailed study of different systems of phase equilibrium** **CO2: Study of electrochemical cells, half cell potentials, EMF determination,** **CO3: Nernst equation, Qualitative discussion of potentiometric titrations etc.** **CO4: Physical adsorption, chemisorption, adsorption isotherms, nature of adsorbed state etc.**
C VIII: Inorganic Chemistry-III	**CO1: Coordination compounds, Werner's theory, Valance bond theory, Crystal field theory, Ligand field and MO theory** **CO2: General group trends of transition elements with reference to physical, magnetic and catalytic properties** **CO3: Physical, spectral and magnetic properties of Lanthanoides and actinoides** **CO4: Introduction to inorganic reaction mechanism in complexes, theories of trans effect etc.**
C IX: Organic Chemistry III	**CO1: Preparation and properties of nitro, nitriles, amines, diazonium salts** **CO2: Preparation and properties of polynuclear hydrocarbons** **CO3: Preparation and properties of 5 and 6 membered heterocyclic compounds** **CO4: Natural occurrence, structural features, isolation and physiological action of alkaloids**
C X: Physical Chemistry IV	**CO1: Study of Faraday's laws of electrolysis, Kohlrausch law of independent migration, Arrhenius theory etc.** **CO2: To study the applications of conductance measurements.** **CO3: Detailed study of order and molecularity of a reaction, Kinetics of complex reactions** **CO4: Lambert-Beer's law, Laws of photochemistry,Quantum yields, role of photochemical reactions.**
C XI: Organic Chemistry IV	**CO1: To study the components of Nucleic Acids, synthesis and reactions of nitrogeneous bases and structures of Polynucleotides (DNA and RNA)** **CO2: Synthesis, reactions and ionic properties of amino acids, Determination of their primary structures, Solid Phase Peptide Synthesis and Primary, Secondary and Tertiary structures of proteins.** **CO3: Introduction and Classification Mechanism of Enzyme action, Enzyme inhibitors and their importance. Introduction to oils and fats. Classification and their properties** **CO4: To understand the concept of energy in biosystems, Introduction to metabolism including ATP hydrolysis and free energy change. Catabolic pathways of carbohydrates. Classification, structures, synthesis and therapeutics uses of Paracetamol, Ibuprofen, Chloroquine and Chloroamphenicol. Study the medicinal values of curcumin, neem, vitamin C and rantidine.**
C XII: Physical Chemistry V	**CO1: Schrondinger equation and its application, setting up of Schrondinger equation for various models.** **CO2: LCAO-MO treatment of various molecules.** **CO3: Covalent bonding, valence bond and molecular orbital approaches.** **CO4: Study of Rotation, Vibrational, Raman, Electronic, NMR, ESR spectroscopy.**
C XIII: Inorganic Chemistry-IV	**CO1: Theoritical principles in Qualitative Analysis** **CO2: Study of organometallic compounds including metal carbonyls, Zeise's salt, metal alkyls, Ferrocene.** **CO3: Detailed study of Industrial processes of Wilkinson's catalyst, Fischer Tropsch reaction, Ziegler- Natta catalyst.** **CO4: Bioinorganic chemistry: Chelating agents, Metal ions, Iron and its application in bio-systems etc.**
C XVI: Organic Chemistry V	**CO1: Introduction to Absorotion and Emission spectroscopy, Auxochromes & Chromophores, Bathochromic and Hypsochromic shift, Application of Woodward Rules for calculation of lmax of a,b-unsaturated aldehydes, ketones and acids.** **CO2: Basic Principles of Infrared spectroscopy and Proton magnetic resonance, Infrared absorption positions of N, O and S containing functional groups, Fundamental and non-fundamental molecular vibrations, Fingerprint reagion and its significance. Anisotrophic effects in alkene, alkynes, aldehydes and aromatics. Application of IR, UV and NMR spectroscopy for identification of simple organic compounds.** **CO3: Classification and biological importance of carbohydrates, epimers, anomers, Haworth projections and conformational structures, determination of ring size of glucose and fructose. Structure elucidation of maltose, lactose and sucrose. Elementary treatment of starch, cellulose and glycogen.**

	CO4: Chemistry of dyeing, synthesis and applications of methyl orange, malachite green, rosaniline and phenolphthalein. Structure elucidation of alizarin and indogotin. Introduction and mechanism of polymerisation reactions. Study of natural and synthetic & natural fabrics and rubbers. Process of vulcanization. Introduction to biodegradable and conducting polymers.

Program Name B.Sc (H) Electronic Science

PO1: To develop critical thinking skills useful in all spheres of life.
PO2: To understand and implement the basics of Electronics and its applications.

PO3: Use of Matlab/ Scilab and other simulation softwares by which the listed problems can be solved numerically, analytically and graphically.
PO4: To introduce the students to a number of interesting and useful ideas in prepartion for careers in Science and Technology

Basic Circuit Theory and Network Analysis	CO1: Basic circuit concepts related to voltage, current, resistors, inductors and capacitors CO2: KVL, KCL, Mesh Analysis, Node Analysis, DC Transient Analysis CO3: Sinusoidal circuit analysis, Resonance in series and parallel RLC circuits, Filters CO4: Network theorems, Two port parameters.
Mathematics Foundation for Electronics	CO1: Study of Ordinary Differential Equations CO2: Understanding Matrices and studying various solution techniques CO3: Sequences and Series, study of convergence and divergence CO4: Complex Variables and Functions
Semiconductor Devices	CO1: Basics of semiconductors CO2: Study of junction diode, I-V characteristics, various types of diodes CO3: Bipolar Junction Transistors and its characteristics CO4: Field Effect Transistors and Power Devices
Applied Physics	CO1: Developing the fundamentals of Quantum Physics CO2: To study the mechanical properties of materials CO3: To study the thermal properties of matter CO4: To develop an understanding of Electric and magnetic properties of matter
Electronic Circuits	CO1: Applications of diodes CO2: Transistor biasing, Use of transistor as switch and amplifier. CO3: Concept of feedback, Use of feedback in amplifiers and oscillators. CO4: Study of circuits based on MOSFETs, Power Amplifiers etc.
Digita Electronics and VHDL	CO1: Study of Number Systems, Boolean Algebra and Logic Gates. CO2: Combinational logic analysis and design. CO3: Sequential logic design CO4: Introduction to VHDL, Bahavioral Modelling and Sequential Processing
C Programming and Data Structures	CO1: Basics of C programming. CO2: Decision making, branching and looping, structures, introduction to C++ CO3: Introduction to data structures CO4: Understanding searching, sorting and trees
Operational Amplifiers and Applications	CO1: Understanding the basics of Operational Amplifiers and its parameters. CO2: Designing of various Op-Amp circuits CO3: Multivibrators based on 555 timers, fixed and variable IC regulators CO4: Study of various Signal Conditioning Circuits
Signals and Systems	CO1: Introduction to different type of signals CO2: Sudy of linear time invariant systems CO3: Fourier Series and Transform CO4: To study the Laplace Transform and its applications
Electronic Instrumentation	CO1: Understand the qualities of measurement. Introduction to basic measurement instruments. CO2: How to measure rsistance and impedance. To carry out A-D/ D-A conversion CO3: Study of oscilloscopes and signal generators CO4: Introduction to transducers and sensors
Microprocessor and Microcontrollers	CO1: Introduction to microprocessors, detailed study of 8085 microprocessor CO2: Study of stack operations, interrupt structure of 8085A. Introduction to microcontrollers CO3: Detailed study of PIC16F887 microcontroller CO4: Interfacing to PIC16F887
Electromagnetics	CO1: Understading Vectors and Electrostatic Fields CO2: Posson's and Laplace's equation, Magnetostatics CO3: Introduction to time vaying fields and Maxwell's Equations CO4: Basics of electromagnetic wave propagation and waveguides
Communication Electronics	CO1: Introduction to an Electronic Communication System CO2: Study of Amplitude and Angle modulation CO3: Introduction to Pulse Modulation Systems CO4: Basics of Digital Carrier Modulation Techniques
Photonics	CO1: Basics of Light, Interference and Diffraction phenomenon CO2: Understanding polarization CO3: Study of light sources and detectors CO4: Basics of waveguides and Optical Fibre
Electrical Machines	CO1: Introduction to DC Machines, Generators and Motors CO2: Study of Transformers and Polyphase Circuits CO3: Basics of Poly Phase Induction Motors CO4: Introduction to Synchronous Machines
Power Electronics	CO1: Basics of Power Devices, Study of SCR CO2: Study of Diac, Triac, IGBT, power MOSFETs CO3: Introduction to Power Invertors and Choppers CO4: Basics of Electromechanical Machines

Semiconductor Fabrication and Charaterization	**CO1: Basics of Semiconductor Fabrication Technology, Charectrerization and Epitaxy** **CO2: Study of Oxidation and Diffusion** **CO3: Understanding Lithography, Etching and Metallization** **CO4: Basic Process Integration**
Transmission Lines, Antenna and Wave Propagation	**CO1: Basics of Electromagnetic Wave Propagation** **CO2: Study of Transmission Lines** **CO3: Study of Waveguides and Waveguide Devices** **CO4: Understanding the Radiation of Electromagnetic Waves and Antenna**
Programming with Labview	**CO1: Introduction to Virtual Instrumentation** **CO2: Basics of LabView** **CO3: Understanding Data Acquisition** **CO4: Implementing Data Acquisition with LabView**
Robotics	**CO1: Understanding Programming Environments** **CO2: Study of Actuators and Sensors** **CO3: Basics of LED interfacing, Timer/ Counter Operations** **CO4: Study of various Communication**

Program Name B.Sc (H) Mathematics

PO1: To develop the ability to think critically, logically and analytically and hence use mathematical reasoning in everyday life

PO2: To introduce the students to a number of interesting and useful ideas in preparations for a number of mathematics careers in education, research, government sector, business sector and industry

PO3: Gauge the hypothesis, theories, techniques and proofs provisionally.

PO4:Identify applications of mathematics in other disciplines and in the real-world, leading to enhancement of career prospects in a plethora of fields and research.

Calculus	**CO1: To introduce the basic tools of calculus and geometric properties of different conic sections which are helpful in understanding their applications in planetary motion, design of telescope and to the real-world problems** **CO2:Sketch curves in a plane using its mathematical properties in the different coordinate systems of reference** **CO3:Apply derivatives in Optimization, Social sciences, Physics and Life sciences etc.** **CO4:Compute area of surfaces of revolution and the volume of solids by integrating over cross-sectional areas.**
Algebra	**CO1: The objective of this course is to introduce the basic tools of theory of equations, complex numbers, number theory and matrices to understand their linkage to the real-world problems.** **CO2:Employ De Moivre's theorem in a number of applications to solve numerical problems** **CO3:Apply Euclid's algorithm and backwards substitution to find greatest common divisor** **CO4:Find eigenvalues and corresponding eigenvectors for a square matrix**
Real Analysis	**CO1: The course will develop a deep and rigorous understanding of real line and of defining terms to prove the results about convergence and divergence of sequences and series of real numbers** **CO2:Understand many properties of the real line and learn to define sequence in terms of functions from to a subset of** **CO3:Recognize bounded, convergent, divergent, Cauchy and monotonic sequences and to calculate their limit superior, limit inferior, and the limit of a bounded sequence** **CO4:Apply the ratio, root, alternating series and limit comparison tests for convergence and absolute convergence of an infinite series of real numbers.**
Differential Equations	**CO1:The main objectives of this course are to introduce the students to the exciting world of Differential Equations, Mathematical Modeling and their applications** **CO2:Formulate Differential Equations for various Mathematical models.** **CO3:Solve first order non-linear differential equation and linear differential equations of higher order using various techniques.** **CO4:Apply these techniques to solve and analyze various mathematical models.**
Theory of Real Functions	**CO1:To have a rigorous understanding of the concept of limit of a function** **CO2: The geometrical properties of continuous functions on closed and bounded intervals** **CO3:To develop an analytical ability to have a more matured perspective of the key concepts of calculus, namely, limits, continuity, differentiability and their applications.** **CO4:The applications of mean value theorem and Taylor's theorem**

Group Theory-I	**CO1: To introduce the fundamental theory of groups and their homomorphisms CO2:Recognize the mathematical objects that are groups, and classify them as abelian, cyclic and permutation groups CO3:Link the fundamental concepts of Groups and symmetrical figures CO4:Explain the significance of the notion of cosets, normal subgroups, and factor groups**
Multivariate Calculus	**CO1:To understand the extension of the studies of single variable differential and integral calculus to functions of two or more independent variables CO2: To learn the conceptual variations when advancing in calculus from one variable to multivariable discussions CO3: Inter-relationship amongst the line integral, double and triple integral formulations CO4: Applications of multi variable calculus tools in physics, economics, optimization, and understanding the architecture of curves and surfaces in plane and space**
LaTeX and HTML	**CO1: To acquaint students with the latest typesetting skills, which shall enable them to prepare high quality typesetting, beamer presentation and webpages CO2: To typeset mathematical formulas, use nested list, tabular & array environments CO3: To Create or import graphics CO4: Use beamer to create presentation and HTML to create a web page**
Partial Differential Equations	**CO1: to teach students to form and solve partial differential equations and use them in solving some physical problems CO2: Formulate, classify and transform partial differential equations into canonical form CO3: Solve linear and non-linear partial differential equations using various methods CO4: Apply these methods in solving some physical problems**
Riemann Integration & Series of Functions	**CO1: To understand the integration of bounded functions on a closed and bounded interval and its extension to the cases where either the interval of integration is infinite CO2: To learn some of the families and properties of Riemann integrable functions, and the applications of the fundamental theorems of integration CO3: To learn Beta and Gamma functions and their properties CO4: The valid situations for the inter-changeability of differentiability and integrability with infinite sum, and approximation of transcendental functions in terms of power series**
Ring Theory & Linear Algebra	**CO1: The objective of this course is to introduce the fundamental theory of two objects, namely - rings and vector spaces, and their corresponding homomorphisms CO2: To learn the fundamental concept of Rings, Fields, subrings, integral domains and the corresponding morphisms CO3: To learn the concept of linear independence of vectors over a field, the idea of a finite dimensional vector space, basis of a vector space and the dimension of a vector space CO4: To learn basic concepts of linear transformations, the Rank-Nullity Theorem, matrix of a linear transformation, algebra of transformations and the change of basis**
Computer Algebra Systems and Related Software	**CO1: familiarizing students with the usage of computer algebra systems (/Mathematica/MATLAB/Maxima/Maple) and the statistical software R. CO2: The basic emphasis is on plotting and working with matrices using CAS CO3: Analyze, test, and interpret technical arguments on the basis of geometry CO4: Graphical representation of data shall also be explored**
Metric Spaces	**CO1: To impart basic knowledge pertaining to metric spaces such as open and closed balls, neighborhood, interior, closure, subspace, continuity, compactness, connectedness CO2: Understand the basic concepts of metric spaces CO3: Correlate these concepts to their counter parts in real analysis CO4: Appreciate the abstractness of the concepts such as open balls, closed balls, compactness, connectedness etc. beyond their geometrical imaginations**
Group Theory-II	**CO1: To understand one of the most important branch of the abstract algebra with applications to practical real-world problems CO2: To learn automorphisms for constructing new groups from the given group CO3: External direct product ZøZ applies to data security and electric circuits CO4: Group actions, Sylow theorems and their applications to check nonsimplicity**
Numerical Analysis	**CO1: To comprehend various computational techniques to find approximate value for possible root(s) of non-algebraic equations CO2: Tofind the approximate solutions of system of linear equations and ordinary differential equations CO3: Some numerical methods to find the zeroes of nonlinear functions of a single variable CO4: Interpolation techniques to compute the values for a tabulated function at points not in the table**
Mathematical Modeling and Graph Theory	**CO1: To teach students how to model physical problems using differential equations and solve them CO2: The use of mathematics software to observe the implementations of the above mentioned methods efficiently, and to enhance the problem solving skills CO3: To solve physical problems using differential equations**
C++ Programming for Mathematics	**CO1: This course introduces C++ programming in the idiom and context of mathematics and imparts a starting orientation using available mathematical libraries, and their applications CO2: Understand and apply the programming concepts of C++ which is important to mathematical investigation and problem solving CO3: Use mathematical libraries for computational objectives CO4: Represent the outputs of programs visually in terms of well formatted text and plots**
Probability Theory and Statistics	**CO1: To make the students familiar with the basic statistical concepts and tools which are needed to study situations involving uncertainty or randomness CO2: The course intends to render the students to several examples and exercises that blend their everyday experiences with their scientific interests CO3: Distributions to study the joint behavior of two random variables CO4: To establish a formulation helping to predict one variable in terms of the other, i.e., correlation and linear regression**

Discrete Mathematics	**CO1: This course aims at introducing the concepts of lattices, Boolean algebras, switching circuits and graph theory** **CO2: Lattices and their types** **CO3: Boolean algebra, switching circuits and their applications** **CO4: Graphs, their types and its applications in study of shortest path algorithms**
Cryptography and Network Security	**CO1: This course helps the students to develop skills and knowledge of standard concepts in cryptography and demonstrates how cryptography plays an important role in the present digital world by knowing encryption and decryption techniques** **CO2: Understand the fundamentals of Cryptography and Network Security, including data and advanced encryption standard (DES & AES), RSA and elliptic curve cryptography** **CO3: Encrypt and decrypt messages using block ciphers, sign and verify messages using well known signature generation and verification algorithms** **CO4: Acquire knowledge of standard algorithms that can be used to provide confidentiality, integrity and authentication of data**
Complex Analysis	**CO1: This course aims to introduce the basic ideas of analysis for complex functions in complex variables with visualization through relevant practicals** **CO2: Understand the significance of differentiability of complex functions leading to the understanding of Cauchy-Riemann equations** **CO3: Evaluate the contour integrals and understand the role of Cauchy-Goursat theorem and the Cauchy integral formula** **CO4: Expand some simple functions as their Taylor and Laurent series, classify the nature of singularities, find residues and apply Cauchy Residue theorem to evaluate integrals**
Ring Theory and Linear Algebra-II	**CO1: This course introduces the basic concepts of ring of polynomials and irreducibility tests for polynomials over ring of integers, used in finite fields with applications in Cryptography** **CO2: Appreciate the significance of unique factorization in rings and integral domains** **CO3: Compute with the characteristic polynomial, eigenvalues, eigenvectors, and eigenspaces, as well as the geometric and the algebraic multiplicities of an eigenvalue and apply the basic diagonalization result** **CO4: Compute inner products and determine orthogonality on vector spaces, including Gram-Schmidt orthogonalization to obtain orthonormal basis**
Mathematical Finance	**CO1: This course is an introduction to the application of mathematics in financial world, that enables the student to understand some computational and quantitative techniques required for working in the financial markets and actuarial mathematics** **CO2: Financial markets and derivatives including options and futures** **CO3: Pricing and hedging of options, interest rate swaps and no-Arbitrage pricing concept** **CO4: Stochastic analysis (Ito formula and Ito integration) and the Black-Scholes model**
Introduction to Information Theory and Coding	**CO1: This course aims to introduce the basic aspects of Information Theory and Coding to the students** **CO2: The output of the channel, a received signal is observed** **CO3: The detection & correction of errors while transmission** **CO4: Representation of a linear code by matrices and its encoding and decoding**
Biomathematics	**CO1: The focus of the course is on scientific study of normal functions in living systems** **CO2: Learn the development, analysis and interpretation of bio mathematical models** **CO3: Reinforce the skills in mathematical modeling** **CO4: Learn to apply the basic concepts of probability to molecular evolution and genetics**
Number Theory	**CO1: To make the students familiar with simple number theoretic techniques, to be used in data security** **CO2: Some of the open problems related to prime numbers, viz., Goldbach conjecture etc** **CO3: About number theoretic functions and modular arithmetic** **CO4: Public crypto systems, in particular, RSA**
Linear Programming and Applications	**CO1: This course develops the ideas underlying the Simplex Method for Linear Programming Problem, as an important branch of Operations Research** **CO2: Analyze and solve linear programming models of real life situations** **CO3: The graphical solution of LPP with only two variables, and illustrate the concept of convex set and extreme points** **CO4: The relationships between the primal and dual problems and their solutions with applications to transportation, assignment and two-person zero-sum game problem**
Mechanics	**CO1: The course aims at understanding the various concepts of physical quantities and the related effects on different bodies using mathematical techniques** **CO2: The significance of mathematics involved in physical quantities and their uses** **CO3: To study and to learn the cause-effect related to these** **CO4: The applications in observing and relating real situations/structures**

Program Name B.Sc. (Hons) Physics

PO1: To teach, develop the curiosity, and motivate the students to the world which is full of occurrence of several physical processes in the nature
PO2: To promote and motivate the students in formulating the physical events in terms of mathematical forms, equations of different nature and thinking critically about the solutions
PO3: Learning through clarity of concepts using both laboratories of Physics and Electronics
PO4: Identifying problems of interdisciplinary nature and provide solution based on computer simulations, making gadgets and instruments to measure the required paramters

Mathematical Physics 1	**CO1: Learning of functions and series, first order and second order differential equations** **CO2: Understanding of the concepts of vector formulation of different physical quantities and variables** **CO3: How to differentiate between Divergence, curl and gradient etc** **CO4: Transformation from one coordinate system to orthogonal curvilinear coordinates**
Mechanics	**CO1: Understanding of inertial and non-inertial frame of reference; Galilean transformation and basic principles of physics** **CO2: Basic nature of conservative and non-conservative forces; to introduce work-energy theorem.** **CO3: Learning of collision between different bodies and particles in different reference frames.** **CO4: Understanding of basic laws of rotational dynamics; and study of motions including both translational and rotational systems.** **CO5: Harmonic oscillator and its broader applications;** **CO6: Study of relativity of theory; Lorentz equations of motions and how Galilean transformation turns to Lorentz transformation depending upon the speed of frame of reference.**
Electricity& Magnetism	**CO1: Learning of electric field and potential, electrostatic energy system, and applications** **CO2: Clarity of the concepts o dielectric properties of matte and relations among different paramters** **CO3: How the magnetic properties are different from electric characters** **CO4: Up-gradation of knowledge based on Mawell's equation and electric circuits**
Waves and Optics	**CO1: To increase understanding on the simple harmonic oscillations both collinear and perpendicular; discussion on the harmonic waves generated in string, air, medium etc.** **CO2: Basic understanding on plane and spherical waves and their in energy transport** **CO3: Electromagnetic nature of light and its properties and applications.** **CO4: Explanations of various characteristics of wave nature of light such as interference, diffraction etc** **CO5: Michelson interferometer and its wide application such as determination of wave frequency and wavelength etc.**
Mathematical Physics–II	**CO1: Learning of higher level mathematical tools, especially Fourier series and its related application in understanding different forms of sine and cosine combinations** **CO2: To know about the special following functions/ equations - Legendre, Bessel, Hermite and Laguerre Differential Equations. Properties of Legendre Polynomials: Rodrigues Formula, Generating Function, Orthogonality.** **CO3: Learning of special integrals - Beta and Gamma Functions and Relation between them.** **CO4: Further up-gradation of solving partial differential equations for instance stretched string solution**
Thermal Physics	**CO1: To aware students about the thermal character of bodies and basics of Zeroth and first law of thermodynamics.** **CO 2: Expansion of thermal Physics laws by introducing second law, Heat Engine, Carnot cycle and applications etc.** **CO3: Entropy, disorderness, third law of thermodynamics, Principle of increase of entropy.** **CO4: To introduce thermodynamic Potentials: Internal Energy, Enthalpy, Helmholtz Free Energy, Gibb's Free Energy. Explanations and requirement of Clausius Clapeyron Equation and Ehrenfest equations** **CO5: Derivation of Maxwell's thermodynamic Relations and their applications.** **CO6: Introduction of kinetic theory of Gases Maxwell-Boltzmann Law of Distribution of Velocities in an Ideal Gas and its experimental verification. Law of Equipartition of Energy. Specific heats of Gases and molecular collisions.**
Digital Systems and Applications	**CO1: Introductory knowledge of CRO, and how to use it for studying wave, amplitude, and phase difference.** **CO 2: Concepts of Analog and digital circuits and different type of gates.** **CO3: Introduction of boolean algebra and foundation of digital world** **CO4: learning of basics of computer organization and difference of terminological terms, and introduction of microprocessor**
Mathematical Physics–III	**CO1: Learning of complex numbers, variables and functions in details** **CO2: Fourier transforms, analysis of complex time series and role of concepts and application of Fourier transformation** **CO3: Laplace transform of functions, and applications of Laplace Transforms to 2nd order Differential Equations: Coupled differential equations of 1st order** **CO4: Dirac delta functions, Laplace and Fourier transform of Dirac delta function.**
Elements of Modern Physics	**CO1: To understand Blackbody radiation and Planck'theory, general features of wave and particle.** **CO2: Learning of superposition of waves, introduction of Schrodinger wave equations and its applications for computations of wave functions** **CO3: To clear the concept of size and structure of nucleus, role of Gamma rays in various forms, fusion and fission reactions** **CO4: To learn laser processing and concepts, development of laser system**
Analog Systems and Applications	**CO1: Revisiting of PN junction semi-conductor devices and basic understanding of the structure** **CO2: Introduction and learning of rectification process using diodes** **CO3: Transformations and requirement from two terminal devices to bipolar junctions** **CO4: Requirement for amplifiers, Op-amp and ocillators**

Quantum Mechanics and Applications	**CO1: How the properties of particles changes at the microscopic level.** **CO2: To give insights about the wave nature of the particle and formulation.** **CO3: Evaluations of different physical quantities such as momentum and energy; positions of atoms and particles in operators form.** **CO3: To make understanding on the dynamics of particles under time independent and dependent conditions.** **CO4: Understanding of wave functions along with orbital structure.** **CO5: To make understanding of atomic energy structure in external electric and magnetic field.** **CO6: Spin-orbit interaction in terms angular momentum; and symmetric and anti- symmetric wave representation of particles**
Solid State Physics	**CO1: Basic aim is to learn the structure of crystalline system with various symmetry operations.** **CO2: Learning of different techniques to know the internal structure of crystalline system** **CO3: Response of crystalline system in terms of mono atomic and diatomic wave dynamics. Dispersion relation in response to acoustic and electromagnetic forcing.** **CO4: Behavior of crystalline system under electric field, i.e. new properties in terms of polarization and dielectric properties.** **CO5: Under applied magnetic field, how the characteristics of materials changes i.e. to distinguish para, dia, and ferro materials.** **CO6: Under low temperature conditions, how the materials attain superconductivity.**
Electromagnetic Theory	**CO1: Learning of conceptualization of Maxwell's equation and related terminology.** **CO2: EM wave propagation in bounded and bounded media, enhancement in knowledge of application in ionosphere** **CO3: Understanding and learning of polarization of Electromagnetic waves, different situations explaining porization properties of EM waves** **CO4: EM waves and Optical fibre, wave guides, signal transfer process and characteristics.**
Statistical Mechanics	**CO1: To learn how to distinguish the difference of micro and macro systems; understanding of partition function, entropy, and Boltzmann distribution.** **CO2: To understand the radiation theory as per classical dynamics; black body radiation and Wien's displacement law.** **CO3: Learning the transition from classical to quantum radiation theory.** **CO4: Bose- Einstein statistics; radiation as a photon gas; thermodynamics functions and Bose derivation of Plank's law.** **CO5: Fermi-Dirac statistics; thermo dynamical functions of de-generate Fermi gas; specific heat of metals; relativistic Fermi gas and Chandrashekhar mass limit.**
Atmospheric Physics	**CO1: General understanding on the thermal and chemical composition of atmospheric vertical structure.** **CO2: To make in-depth understanding of atmospheric dynamics at small and large (global) scale by including convection.** **CO3: To learn different atmospheric waves; their sources and propagation and role in weather prediction.** **CO4: Role of dynamical and chemical constituents in coupling of northern and southern hemisphere; and mid and low latitudes.** **CO5: Study of wide spectrum of aerosols and pollutants and their impact on human health.** **CO6: Basic understanding of radar, lidar, radiosonde, and satellite remote sensing observational techniques; learning of data analysis tools.**
Physics of the Earth	**CO1: To learn the origin of Earth; and general characteristics of astronomy, meteorology, and oceanography.** **CO2: Introduction of various branches of Earth Science such as solid Earth, atmosphere etc.** **CO3: To gain insights of solid Earth in terms of magnetic field, hydrosphere and climate at a long time scale (Paleo-climate).** **CO4: Learning of role of Biosphere in shaping the environment and, origin of life on Earth.** **CO5: Future of Evolution of Earth and solar system** **CO6: Understanding and study of Climate change and air pollution and their impacts on several parameters of Earth system.**
Classical Dynamics	**CO1: To review the Newtonian Mechanics and its application for the motion of charge particles.** **CO2: Basic introduction of Hamiltonian and Lagrangian principle and their applications.** **CO3: Advance understanding on special theory of relativity in tensor dynamics.** **CO4: To enhance the understanding using the four- momentums, concept of four- forces, and Doppler effect from a four-vector perspective.** **CO5: A detail study of fluid dynamics: continuity equation and mass conservation, stream-lined motion, laminar flow, and Reynolds number**
Advanced Mathematical Physics-I	**CO1: Advance study of linear independence and dependence of vectors, linear transformations, and nonsingular transformations.** **CO2: Complete study of matrices dynamics and its application to solve the different problems in physics.** **CO3: To study Cartesian coordinate dynamics in new vector dynamics tensor.** **CO4: Study of general tensor for transformation of co-ordinates and introduction contravariant & covariant vectors.**
Advanced Mathematical Physics-II	**CO1: Understanding the role of variable calculus for classical dynamics such as variational Principle, Euler's Equation and Lagrangian.** **CO2: An introduction to generalized forces and canonical pair of variables.** **CO3: Elementary understanding of group theory, study of some special groups with operators, and reducible and irreducible representation for matrix.** **CO4: Advanced understanding of probability theory such as special probability distributions: the binomial distribution, the Poisson distribution, and continuous distribution**

Program Name B.COM (HONS.)

http://www.du.ac.in/du/uploads/Syllabus_2015/B.Com%20(H).pdf

PO!: After completion of the B.Com (Hons.) programme that aims at providing comprehensive insight into finance, banking, law, accounting, taxation and management, the students should be able to:

PO2:Demonstrate knowledge and skills for Banking, Financial Services and Insurance functions and also respond to the global outlook on opportunities and challenges in Accounting and Financial Service sector.

PO3:Develop an ability to effectively communicate both orally and verbally and should also Appreciate importance of working independently and in a team.
PO4:Recognise features and roles of businessmen, entrepreneur, managers, consultant, which will help learners to possess knowledge and other soft skills and to react aptly when confronted with critical decision making.
PO5: Develop self-confidence and awareness of general issues prevailing in the society.

Human Resource Management	**CO1: To familiarize students with the operation of organization in the area of human resource management.** **CO2: Gaining knowledge in the field of acquisition, maintenance and development of human resource.** **CO3: An understanding of the theory and techniques used in management of human resource.** **CO4: The students will be able to assess the problems in the area of human relations and using their knowledge and proactive approach to create their own solutions related to the management of human resources in the organization.**
Corporate Accounting	**CO1: • To enlighten the students to learn accounting procedures followed by companies.** **CO2: • Students would gain knowledge of Companies, shares and debentures and regulation of companies.** **CO3: • Students acquire conceptual knowledge of the fundamentals of Corporate Accounting and learn the techniques of preparing financial statements in conformity with the provisions of Companies Act.** **CO4: • The students would learn corporate account management like holding companies account, amalgamation of companies etc.**
Business Laws	**CO1: To familiarize students with the basic provisions of important commercial laws in India.** **CO2: Providing basic knowledge of Indian contract Act, limited liability partnership Act, sale of goods Act and Information technology Act to the students.** **CO3: Explaining the subject with the help of illustrative cases so that it is easily assimilated by students.** **CO4: The students will be able to understand how the principles of commercial laws are applied to the problems which arise in day to day life and in the conduct of business.**
International Business	**CO1: To expose students to the concept, importance and dynamics of international business.** **CO2: Making the students aware of various means which can be used by individuals and corporate to achieve their global objectives.** **CO3: To familiarize students with the procedures of exchange of goods and services among individuals and businesses in multiple countries.** **CO4: Explaining the various skills and abilities that** **Will enable the businessmen to excel and grow in a rapidly changing business world.**
Corporate Laws	**CO1: To impart basic knowledge of the provisions of Companies Act, 2013 and the Depositories Act, 1996.** **CO2: Corporate Law is a part of broader Companies Act and describes the rules and regulations, how corporations, investors, shareholders, directors, employees, creditors, and other stakeholders such as consumers, the community, and the environment interact with one another.** **CO3: To provide knowledge of Popular case studies relating to various provisions of Companies Act, for the better understanding of the provisions and their implementation in real scenarios.** **CO4: It enables one to assess whether strategies and the organization is in compliance with established regulatory framework, and corporate governance.**
Business Statistics	**CO1: To familiarize students with basic statistics tools used to analyze the quantitate data for decision making.** **CO2: This paper aims at providing the basic understanding about sample data and its collection for the purpose of research.** **CO3: General understanding as to how collect data, analyze, present and interpret it is provided to solve business problems and take decision.** **CO4: To understand how to use statistics in real life situations.**
Income Tax Laws and Practice	**CO1: To provide basic knowledge and equip students with application of principles and provisions of Income Tax Act, 1961.** **CO2: To provide the students the conceptual and practical knowledge about electronic filing of returns.** **CO3: To expose students to the various provisions of Income tax act relating to computation of income of individual assesses and file their income tax return online (e-filing of returns).** **CO4: Provides knowledge about tax avoidance and tax evasion so that one does not falls into these traps.**
Advertising	**CO1: The subject focused on Advertising and marketing principles as well as how to create and manage media campaigns.** **CO2: It also included training in the legal,ethical and social responsibilities of advertisers.** **CO3: Advertising explores ways to engage and communicate with clients and target audiences.** **CO4: Students benefited from various topics such as Advertising Appeals and Advertising agency.**
Financial Accounting	**CO1: It helped master the technical skills needed to analyse financial statements.** **CO2: It educated about the disclosures for use in financial analysis ,and learn how accounting standards and managerial incentives affect the financial reporting process.** **CO3: It helped in understanding guidelines on how the transcations are recorded.** **CO4: The various examples of financial statement were income statement and balance sheet.**
Cost Accounting	**CO1: Express the place and role of cost accounting in the modern economic environment.** **CO2: Select the cost according to their impact on business.** **CO3: Differentiate methods of schedule costs per unit of production as well as methods of calculating stock consumption.** **CO4: Identify the specifics of different costing methods.**
Management Accounting	**CO1: The students will be able to understand the role of management accountant and knowledge about the advantages and limitations of using management accounting in a firm.** **CO2: Understand the cash flows from complex operating, financing and investment decisions and evaluate projects on the basis of their ratios.** **CO3: Describe the different ways in which organisations may be structured and also understand basic concepts of organisational structure.** **CO4: Make relevant decision regarding determination of sales mix, exploring new markets, discontinuance of a product line, make or buy, equipment replacement, etc.**

Entrepreneurship	**CO1: The subject focused on developing knowledge, skills.** **CO2: It helped in understanding of how an innovative and creative idea a new and successful business.** **CO3: Also helped existing firm to grow and expand.** **CO4: It would also be an advantage to the students if they were an aspiring entrepreneur.**
E-Marketing	**CO1: It explained students about the importance of e-marketing.** **CO2: It focused on explaining and illustrating the use of search engine marketing, online advertising and online marketing strategies.** **CO3: Students were taught about strategic marketing issues related to the use of e-commerce solutions for business to business (B2B) and business to consumer (B2C) transcation.** **CO4: Also explaining the role of e-marketing plans as a component of corporate level plans.**
Consumer Affairs	**CO1: It educated students about consumer education.** **CO2: Rights that protects the consumer from large companies that sell product and services.** **CO3: Consumer education provides resources and information that inform the consumer of such things as price and trade practices.** **CO4: It also helped in providing critical thinking, problem solving and action.**
Macroeconomics	**CO1: It helps students to acquire a logical and robust framework for understanding the macroeconomic variables and ability to employ the macroeconomic variable to explain policy proposals.** **CO2: It helps to understand the monetary and fiscal policy option and its role to economic stabilization.** **CO3: It helps to understand the causes and effects of inflation and unemployment.** **CO4: It helps to apply relevant concept to assess how a business is affected by its macroeconomic policy.**
Microeconomics	**CO1: It analyses how people allocate and utilize scare resources to social consequences of economic decision making.** **CO2: It helps to evaluate the consequences of government policies in markets and the behavior of buyers and sellers.** **CO3: It helps to analyze the relationship between inputs used in production and the resulting outputs and costs.** **CO4: It helps to distinguish between the various forms of market structure and explain how government might need to intervene.**
Project Management	**CO1: Project Management helps to learn how to build a successful project from pre-implementation to completion.** **CO2: It helps to implement project management knowledge, processes, lifecycle, concepts, tools and techniques in order to achieve project success.** **CO3: It helps to describe the time needed to successfully complete a project, considering factors such as task dependencies and task length.** **CO4: It is a key practice in terms that can be understood, implemented and successfully executed.**
Insurance and Risk management	**CO1: Students should be able to understand the principles, methodology in the identification, analysis and management of risk.** **CO2: apply the insurance mechanism in risk management** **CO3: understand the regulatory framework of insurance contract.** **CO4: understand the types of insurance prevailing in Indian market.**
Computer Application in Business	**CO1: Students will be able to recognize when to use each of the Microsoft Office programs to create professional and academic documents.** **CO2: understand the potential use of functions in a business environment.** **CO3: apply skills and concepts for basic use of computer hardware, software, networks, and the Internet in the workplace.** **CO4: Use critical thinking and problem solving skills to determine correct formula output.**
Management principles and appplication	**CO1: Students should be able to understand the the components of human resource planning.** **CO2: Students should be able to understand the the steps of the decision-making process.** **CO3: To familiarize the students the control process and its elements and the current business landscape and trends.** **CO4: Students should be able to understand the need for management in an organization.**
Goods and Services Tax (GST)	**CO1: Students should be able to understand the GST as a comprehensive indirect tax levied on manufacture, sale and consumption of goods as well as services.** **CO2: To familiarize the students that GSt will eliminate the cascading effect of taxes on the production and distribution prices of goods and services.** **CO3: Student will be made aware that under the current GST tax reform, all forms of supply of goods and services like transfer, sale, barter, exchange and rental will have a CGST and SGST.** **CO4: They will also understand that remedy to multiple taxes and its cascading effect which is a burden on common man is GST**
Indian Economy	**CO1: It will enable the learners in developing conceptual clarity regarding the understanding of various trends and issues of the Indian economy.** **CO2: Study will enable the understanding of economic indicators and policy debates in India.** **CO3: Encapsulation of the study of paradigm shifts in the policy regimes, structures and sectors of the Indian economy** **CO4: The study of development potential shall be a way forward in understanding the various corrective measures.**
Investing in Stock Market	**CO1: It will enlighten the students with the understanding and the application of appropriate analytical framework required to operate in the stock market.** **CO2: The learners will be acquainted with the fundamentals, valuation and techniques of investing in the stock market.** **CO3: Understanding of the Indian securities market,various participants and indices.** **CO4: Understanding of the risk and return trade- off in investing.**
Fundamental of Investments	**CO1: To make students aware about the difference between investment and speculation activities.** **CO2: To enhance knowledge about various investment options through different financial instruments such as stocks, bonds, money market instruments, derivatives etc.** **CO3: To create awareness about Indian stock markets and about the procedures to invest in stock market.** **CO4: To create awareness about the investor's rights and protection measures.**
Financial management	**CO1: To impart knowledge about the financial management decisions such as investment decisions, financing decisions and dividend decisions.** **CO2: To have knowledge about the profit maximization and wealth maximization concepts.** **CO3: To study capital budgeting techniques to have good understanding about the investments decisions.** **CO4: To cover other areas of financial management such as cost of capital, capital structure, dividend decisions etc. so that student can get thorough understanding about the subject.**
Principles of Marketing	**CO1: The students will be able to define and apply knowledge of the various key marketing concept.** **CO2: The students will understand the various forces in the external business environment.** **CO3: To understand the various forces in the external business environment** **CO4: They will also be able to understand the Importance of developing a market driven orientation in an organization to business situations.**

Business Mathematics	**CO1: To famaliarise the students with basic mathematical tools with emphasis on applications to business and economic situations.** **CO2: The students will also be able to apply the concept of mathematics of finance for planning and decision making.** **CO3: The students will gain a knowledge of matrcies that will help the students to depict the problems in a ompact and simple way. It represents a way in which any problem is solved by representing it completely in a mathematical model.**

Program Name: B.SC. PHYSICAL SCIENCE CHEMISTRY

PO1: To learn the basics of Chemistry.
PO2: To have a basic understanding of Physics
PO3: To develop the ability to think critically, logically and analytically and hence use mathematical reasoning in everyday life
PO4: To be able to integrate knowledge from different streams

MECHANICS	**CO1: To understand the Vector algebra, Scalar and vector products, Derivatives of a vector, Laws of Motion: Frames of reference. Newton's Laws of motion.** **CO2: To understand th Conservation of momentum, Work,energy, conservation of energy and Motion of rockets.** **CO3: To understand the Rotational Motion, Angular velocity and angular momentum, Torque. Conservation of angular momentum.** **CO4: TO understand the Gravitation, Newton's Law of Gravitation. Motion of a particle in a central force field, Kepler's Laws, Satellite in circular orbit and applications.**
ELECTRICITY AND MAGNETISM	**CO1: To understand the Vector Analysis, Review of vector algebra, gradient, divergence, Curl and their significance, Vector Integration, Line, surface and volume integrals of Vector fields, Gauss-divergence theorem and Stoke's theorem of vectors.** **CO2: To understand the Electrostatic Field, electric flux, Gauss's theorem of electrostatics. Applications of Gauss theorem- Electric field due to point charge., infinite line of charge, uniform** **CO3: To understand the Magnetostatics, Biot-Savart's law and its applications- straight conductor, circular coil, solenoid carrying current.** **CO4: To understand the Electromagnetic Induction, Faraday's laws of electromagnetic induction, Lenz's law, self and mutual inductance. to understand Maxwell`s equations and Electromagnetic wave propagation**
THERMAL PHYSICS & STATISTICAL MECHANICS	**CO1: To understand the Zeroth Law of thermodynamics and temperature. First law and internal energy, conversion of heat into work, Various Thermodynamical Processes.** **CO2: To understand the Thermodynamic Potentials, Enthalpy, Gibbs, Helmholtz and Internal Energy functions, Maxwell's relations and applications - Joule-Thompson Effect.** **CO3: To understand the Kinetic Theory of Gases, Derivation of Maxwell's law of distribution of velocities and its experimental verification, Mean free path, Transport** **CO4: To understand the Theory of Radiation, Blackbody radiation, Spectral distribution, Concept of Energy Density, Derivation of Planck's law, Deduction of Wien's distribution law, Rayleigh-Jeans Law, Stefan Boltzmann Law and Wien's displacement law from Planck's law.**
WAVES AND OPTICS	**CO1: To understand the Superposition of Two Collinear Harmonic oscillations: Simple harmonic motion, Linearity and Superposition Principle, Superposition of Two Perpendicular Harmonic Oscillations, Graphical and Analytical Methods, Lissajous Figures** **CO2: To understand the Waves Motion- General Transverse waves on a string, Travelling and standing waves on a string. Normal Modes of a string, Group velocity, Phase velocity.** **CO3: To understand the Sound waves, production and properties, Intensity and loudness of sound, Decibels, Intensity levels, musical notes, musical scale, Acoustics of building.** **CO4: To understand the Wave Optics, Electromagnetic nature of light, Definition and Properties of wavefront. Stdents will learn Interference, Newton's Rings measurement , Michelson's Interferometer, Diffraction and Polarization**
PHYSICS WORKSHOP SKILL	**CO1: To understand the Measuring units, conversion to SI and CGS, Familiarization with meter scale, Vernier calliper, Screw gauge and their utility.** **CO2: To understand the Mechanical Skill, Concept of workshop practice, Overview of manufacturing methods, casting, foundry, machining, forming and welding.** **CO3: To understand the Common materials used for manufacturing like steel, copper, iron, metal sheets, composites and alloy, wood , Concept of machine processing, Cutting tools, lubricating oils.**

	CO4: To understand the Electrical and Electronic Skill, Use of Multimeter, Soldering of electrical circuits on PCB, Operation of oscilloscope, Making regulated power supply, Introduction to prime movers, motor axel, Lever mechanism, Lifting of heavy weight using lever, braking systems, pulleys and working principle of power generation systems.
COMPUTATIONAL PHYSICS	CO1: To understand the Importance of computers in Physics, Usage of linux as an Editor, Algorithms and Flowcharts symbols, guidelines, types with the Examples: Cartesian to Spherical Polar Coordinates, Roots of Quadratic Equation, Sum of two matrices, Sum and Product of a finite series. CO2: To understand the Scientific Programming, Development of FORTRAN, , Operators, Expressions, Fortran Statements, Layout of Fortran Program, Format of writing Program and concept of coding, Initialization and Replacement Logic. CO3: To understand the Control Statements, Types of Logic, Looping Statements , Jumping Statements , Functions and Subroutines, RETURN, CALL, COMMON and EQUIVALENCE Statements, Structure, Disk I/O Statements, open a file, writing in a file, reading from a file.
ELECTRICAL CIRCUITS AND NETWORK SKILLS	CO1: To understand Basic Electricity Principles, Electrical Circuits, Single-phase and three-phase alternating current sources. CO2: To understand the Electrical Drawing and Symbols, Blueprints, Reading Schematics, Ladder diagrams, Electrical Schematics, Power circuits,. Control circuits and Generators and Transformers. CO3: TO understand the Electric Motors, Single-phase, three-phase & DC motors, Solid-State Devices and Components in Series or in shunt. CO4: To understand the Electrical Protection, Relays, Fuses and disconnect switches, Circuit breakers, Overload devices, Ground-fault protection and Electrical Wiring

Program Name B.Sc.(Physical Science) Electronics

PO1: To learn the basics of Electronics
PO2: To have a basic understanding of Physics
PO3: To develop the ability to think critically, logically and analytically and hence use mathematical reasoning in everyday life
PO4: To be able to integrate knowledge from different streams

NETWORK ANALYSIS AND ANALOG ELECTRONICS	CO1: To understand the concept of Voltage and Current Sources using the Kirchhoff's Current Law and Voltage Law. The student will understand the mesh, node Analysis of the circuits and they can transform the circuit from Star formation to Delta formation networks and viceversa. CO2: The student will understand the concept of PN junction diode its constructions, Formation of Depletion Layer, Diode Equation and I-V characteristics. This course will help to students to having the Idea of static and dynamic resistance, dc load line analysis, Quiescent (Q) point in a diode. CO3: To understand the characteristics of transistor as Amplifiers, Thermal runaway of transister, stability and stability factor S. The students will learn the Small signal analysis of single stage CE amplifier. CO4: To understand the Cascadding of Amplifiers in Two stage RC Coupled Amplifier and its Frequency Response. they will learn the transister as a Oscillators, the concept of JFET its Construction, working and I-V characteristics
LINEAR AND DIGITAL INTEGRATED CIRCUITS	CO1: To understand the concept of Operational Amplifiers (IC 741), its Open and closed loop configuration, Frequency Response and CMRR. CO2: They wil learn what is the Difference Amplifier, Integrator, wein bridge oscillator and Comparator Decimal, Binary, Octal and Hexadecimal number systems, base conversions. Representation of signed and unsigned numbers, BCD code. Binary, octal and hexadecimal arithmetic; addition, subtraction by 2's complement method, multiplication. CO3: To understand the Logic Gates and Boolean algebra, Truth Tables of OR, AND, NOT, NOR, NAND, XOR, XNOR, Universal Gates, Basic postulates and fundamental theorems of Boolean algebra. To understand the Combinational Logic Analysis and Design, SOP and POS Minimization Techniques, Karnaugh map. CO4: To understand the Binary Addition, Half and Full Adder, Full Subtractor, 4-bit binary Adder/Subtractor. to understand the Data processing circuits such as Multiplexers, De-multiplexers, Decoders, Encoders. Sequential Circuits
COMMUNICATION ELECTRONICS	CO1: To understand the Electronic communication, Need for modulation, Electromagnetic communication spectrum, band designations and usage Channels and base-band signals, Concept of Noise, signal-to-noise (S/N) ratio. CO2: To understand the concept of Analog Modulation such as Amplitude Modulation, Generation of AM, FM and PM, modulation index and frequency spectrum. CO3: to understand the concept of Analog Pulse Modulation, Channel capacity, Sampling theorem, Basic Principles- PAM, PWM, PPM, modulation and detection technique for PAM only, Multiplexing, Digital Pulse Modulation GPS navigation system. CO4: To understand the concept of Navigation systems, Satellite Communication– Introduction, need, Geosynchronous satellite orbits, geostationary satellite advantages of geostationary satellites.
MICROPROCESSOR and MICROCONTROLLER	CO1: To understand the Microcomputer Organization, Input/Output Devices, Data storage, Computer memory addressing. CO2: To understand 8085 Microprocessor Architecture, Main features of 8085, Block diagram, Pin-out diagram of 8085, Data and address buses. Registers. ALU. Stack memory, Program Students will learn the 8085 Programming its Instruction classification, Hardware and software interrupts, 8051 microcontroller, architecture of 8051, overview of 8051 family, 8051 assembly language programming, CO3: To understand the 8051 Programming, addressing modes, various addressing modes, assembly language instructions using each addressing mode, arithmetic and logic instructions, 8051 programming in C: for time delay and I/O operations and manipulation, for arithmetic and logic operations, for ASCII and BCD conversions. CO4: To understand Embedded systems and general purpose computer systems, Architecture of embedded system, classifications, applications and purpose of embedded systems.
PHOTONIC DEVICES AND POWER ELECTRONICS	CO1: To understand the Classification of photonic devices, Interaction of radiation and matter, Light Emitting Diode, Semiconductor Laser, photodetectors, Photoconductor, quantum efficiency and responsivity and Photomultiplier tube. Students will learn about Solar Cell its Construction, working and characteristics CO2: To understand LCD Displays, Fiber Optics, Transmission link, Circular Wave guides- Overview of Modes CO3: To understand Power Devices, Power MOSFET , Silicon Controlled Rectifier , Diac and Triac. CO4: To understand Insulated Gate Bipolar Transistors , Power Invertors and bridge invertors.

ELECTRONIC INSTRUMENTATION	CO1: To understand the Measurements, Accuracy and precision, Significant figures, Error and uncertainty analysis. To understand the Basic Measurement Instruments, ammeter, voltmeter, ohm meter, Digital voltmeter systems CO2: To understand the Power supply, IC Regulators , load regulation, Short circuit protection. Idea of SMPS and UPS. To understand the Oscilloscope, CRT, measurement of voltage, frequency and phase by Oscilloscope. CO3: To understand Multivibrators, IC 555, Astable & Monostable multivibrator circuits, Phase Locked Loop, Phase detector, varactor, Function generator and Pulse Generator. CO4: To understand the Virtual Instrumentation, Transducers, LVDT and piezoelectric transducers.
PHYSICS WORKSHOP SKILL	CO1: To understand the Measuring units, conversion to SI and CGS, Familiarization with meter scale, Vernier calliper, Screw gauge and their utility. CO2: To understand the Mechanical Skill, Concept of workshop practice, Overview of manufacturing methods, casting, foundry, machining, forming and welding. CO3: To understand the Common materials used for manufacturing like steel, copper, iron, metal sheets, composites and alloy, wood , Concept of machine processing, Cutting tools, lubricating oils. CO4: To understand the Electrical and Electronic Skill, Use of Multimeter, Soldering of electrical circuits on PCB, Operation of oscilloscope, Making regulated power supply, Introduction to prime movers, motor axel, Lever mechanism, Lifting of heavy weight using lever, braking systems, pulleys and working principle of power generation systems.
COMPUTATIONAL PHYSICS	CO1: To understand the Importance of computers in Physics, Usage of linux as an Editor, Algorithms and Flowcharts symbols, guidelines, types with the Examples: Cartesian to Spherical Polar Coordinates, Roots of Quadratic Equation, Sum of two matrices, Sum and Product of a finite series. CO2: To understand the Scientific Programming, Development of FORTRAN, , Operators, Expressions, Fortran Statements, Layout of Fortran Program, Format of writing Program and concept of coding, Initialization and Replacement Logic. CO3: To understand the Control Statements, Types of Logic, Looping Statements , Jumping Statements , Functions and Subroutines, RETURN, CALL, COMMON and EQUIVALENCE Statements, Structure, Disk I/O Statements, open a file, writing in a file, reading from a file.
ELECTRICAL CIRCUITS AND NETWORK SKILLS	CO1: To understand Basic Electricity Principles, Electrical Circuits, Single-phase and three-phase alternating current sources. CO2: To understand the Electrical Drawing and Symbols, Blueprints, Reading Schematics, Ladder diagrams, Electrical Schematics, Power circuits,. Control circuits and Generators and Transformers.

Program Name B.Sc (PS) Computer Science

PO1: The primary goal of the program in Computer Science is to provide students the foundations for future work and careers in computation-based problem solving.

PO2: It emphasizes development of analytical skills, acquisition of knowledge and understanding of systems, languages and tools required for effective computation-based problem solving.
PO3: Students will be able to work effectively in teams to design and implement solutions to computational problems
PO4:Students will be able to use appropriately system design notations and apply system design engineering process in order to design, plan, and implement software systems

Problem Solving using Computer	CO1: Logic development. Learning to write programs in Python for simple applications. CO2: Learning Object Oriented Programming concepts. Implementing OOP using Python. CO3: Describe the Numbers, Math functions, Strings, List, and Tuples in Python. CO4:Understand Visual Python using functions
Database Management Systems	CO1: Differentiate database systems from file systems by enumerating the features provided by database systems and describe each in both function and benefit. CO2:Demonstrate an understanding of the relational data model. CO3:Formulate, using SQL and Relational Algebra, solutions to a broad range of query and data update problems. CO4:Demonstrate an understanding of normalization theory and apply such knowledge to the normalization of a database.
Operating Systems	CO1: To introduce students with basic concepts of Operating System, its functions and services. CO2: To familiarize the students with various views and management policies adopted by O.S. as pertaining with processes , Deadlock , memory , File and I/O operations. CO3:Compare the various algorithms and comment about performance of various algorithms used for management of memory, CPU scheduling, File handling and I/O operations. CO4:Design and construct the following OS components: System calls, Schedulers, Memory management systems, Virtual Memory and Paging systems
Computer System Architecture	CO1:To conceptualize the basics of organizational and architectural issues of a digital computer. CO2:To analyze performance issues in processor and memory design of a digital computer. CO3: Use Boolean algebra as related to designing computer logic, through simple combinational and sequential logic circuits CO4: Assemble a simple computer with hardware design including data format, instruction format, instruction set, addressing modes, bus structure, input/output, memory, Arithmetic/Logic unit, control unit, and data, instruction and address flow
Programming in Java	CO1: Gain knowledge about basic Java language syntax and semantics to write Java programs and use concepts such as variables, conditional and iterative execution methods etc. CO2: Understand the fundamentals of object-oriented programming in Java, including defining classes,objects, invoking methods etc and exception handling mechanisms. CO3: Understand the principles of inheritance, packages and interfaces. CO4:Write Java programs to implement error handling techniques using OOP principles and exception handling.
Internet Technologies	CO1:Understand how Web pages are designed and created. CO2: Explain the basics of Internet technology, such as http and the World Wide Web, HTML, and JavaScripts. CO3: Create WWW pages to serve as front-end to client/server, Internet applications.

	CO4:Develop JSP applications using JSP Tags, JSP Scriptlets and JavaBeans
Office Automation Tools	CO1:Provide hands-on use of Microsoft Office 2013 applications Word, Excel, Access and PowerPoint. CO2: Students will be able to represent a number in various bases. CO3: Students will be able to perform arithmetic operations with numerals in bases other than ten. CO4: Representing characters in ASCII and UNICODE system.
PHP Programming	CO1: Understand how server-side programming works on the web. CO2: PHP Basic syntax for variable types and calculations.Creating conditional structures Storing data in arrays CO3: Create a database in phpMyAdmin. CO4: Read and process data in a MySQL database.
System Administration Maintenance	CO1: Demonstrate how to plan, install, and troubleshoot a Local Area Network CO2: Demonstrate how to maintain a collection of devices using remote management tools CO3: Give experienced Unix/Linux users the skills and knowledge needed to be qualified system administrator. CO4: Introduced to the key procedures of system booting and shutdown,maintaining file systems, backing up the system, maintaining printers, handling software updates, using and configuring NFS, and more.
Android Programming	CO1: Install and configure Android application development tools. CO2:Design and develop user Interfaces for the Android platform. CO3: Apply Java programming concepts to Android application development.

Program Name B.Sc APS (Industrial chemistry)

PO:1. The students learn about the basics of industrial chemistry.

PO:2. The students learn about the different industrial processes
PO:3. The students learn about difference if small scale and industrial scale preparation.
PO:2. The students learn about the use of chemicals in different industries

Industrial chemistry-1: Industrial chemicals and environment	CO:1. Students learn about the Chemical Technologies. CO:2. Students learn about properties of different industrial gases CO:3. Students learn about extraction and uses of metals in industries. CO:4. Students learn about nature and composition of environment
Industrial chemistry-2: Fossil Fuels, cleansing agents and food additives	CO:1. Students learn about chemistry of fuels. CO:2. Students learn about preparation and properties of oils. CO:2. Students learn about preparation and properties of fats. CO:4. Students learn about the chemicals used as food materials
Industrial chemistry-3: Inorganic Materials	CO:1. Students learn about industrial processes and uses of silicates. . CO:2. Students learn about preparation and properties of different kinds of fertilizers. CO:2. Students learn about the chemicals used in surface coatings. CO:4. Students learn about the properties of batteries and alloys
Biochemistry and environmental chemistry	CO:1. Students learn about the role of chemistry in biological processes . CO:2. Students learn about the basics of biochemistry. CO:2. Students learn about different aspects of environment in detail. CO:4. Students learn about the effect of human activities on environment
Chemistry of s- and p-block elements, States of Matter & Chemical Kinetics	CO:1. Students learn about physical and chemical properties of s- and p- block elements . CO:2. Students learn about kinetics of s- and p- block elements . . CO:2. Students learn about reactivity of s- and p- block elements . CO:4. Students learn about different compounds of s- and p- block elements .
Industrial chemistry-4: Pharmaceuticals, Fermentation, Pesticides and perfumes	CO:1. Students learn about different kinds of drugs and pharmaceuticals. CO:2. Students learn about preparation and properti. Es of different kinds of cosmetics CO:2. Students learn about different kinds of perfumes. CO:4. Students learn about the fermentation processes used in industries.
Intellectual property Rights	CO:1. Students learn about category of property that includes intangible creations of the human intellect . CO:2. Students learn about copyrights. CO:2. Students learn about patents. CO:4. Students learn about trademarks.
Chemistry of d-block elements, quantum chemistry and spectroscopy	CO:1. Students learn about proerties of transition elements. CO:2. Students learn about coordination chemistry. CO:2. Students learn about different theories of coordination compounds. CO:4. Students learn about quantum and spectroscopy of coordination compounds
Industrial Chemistry-5: Dyes and Polymers	CO:1. Students learn about preparation and properties of different types of dyes . CO:2. Students learn about organic polymers. CO:2. Students learn about inorganic polymers. CO:4. Students learn about uses of inorganic and organic polymers.
Green chemistry	CO:1. Students learn about design of chemical products and processes that reduce or eliminate the use or generation of hazardous substances . CO:2. Students learn about how green chemistry applies across the life cycle of a chemical product. CO:2. Students learn about Green chemistry applies across the life cycle of a chemical product, including its design, manufacture. CO:4. Students learn about use and ultimate disposal of chemical products.
Polymer Science	CO:1. Students learn about structures and chemical synthesisof polymers in general. CO:2. Students learn about synthesis and properties of synthetic polymer.. CO:2. Students learn about plastics . CO:4. Students learn about elastomers.
Forensic Science	CO:1. Students learn about scientific knowledge of forensic science . CO:2. Students learn about methodology of forensic science. CO:2. Students learn about different aspects of criminal investigation.

	CO:4. Students learn about legal problems in forensic science
Organometallics, Bio-inorganic chemistry, Proteins and UV-IR spectroscopy	CO:1. Students learn about organometallic compounds, chemical compounds containing at least one chemical bond between a carbon atom of an organic molecule and a metal, including alkaline . CO:2. Students learn aboutchemical compounds containing at least one chemical bond between a carbon atom of an organic molecule and a metal, including alkaline, alkaline earth . CO:2. Students learn about chemical compounds containing at least one chemical bond between a carbon atom of an organic molecule , and transition metals . CO4: With other concepts such as LPP (Linear Programming Problem) the students can learn a technique for optimization of various outcomes.

Program Name B.A. (Hons) Economics

PO1: To develop critical thinking skills useful in real life situations.
PO2: To understand and implement the basics of Economics and its applications.
PO3: Use of Mathematical Tools to aid the understanding of Economics concepts.
PO4: To introduce the students to a number of interesting and useful ideas in prepartion for careers in Economics, Finance and Management

Introductory Microeconomics	CO1: Expose students to the basic principles of Microeconomics CO2: Applying Microeconomic concepts to analyse real life situations CO3: To introduce students to various subject matter of economics CO4: Expose students to various market structure
Mathematical Methods in Economics - I	CO1: to transmit the body of basic mathematics that helps students to study various economic theory CO2: This paper familiarise students in applying mathematical techniques to economic theory CO3: to introduce students to functions of one real variable CO4: This course also expose to Integration and Difference Equations
Introductory Macroeconomics	CO1: To introduce students to the basic concepts of Macroeconomics CO2: This course expose students to priliminary concepts of aggregate macro economic variable CO3: To introduce the concept of Money and Inflation to students CO4: This course also introduce students IS-LM model ans Classical Keynesian model
Mathematical Methods in Economics - II	CO1: TO transmit the body of basic mathematics that help students to study various economic theory CO2: This paper familiarise students with differential equations and linear algebra CO3: This paper expose students to function of several real variables CO4: This paper also introduce students to multi-variable optimization
Intermediate Microeconomics - I	CO1: This course is designed to provide a sound training in micro economic theory to analyse the behaviour of individual agents. CO2: Mathematical tools are used to facilitate understanding of basic concepts of microeconomics CO3: This paper expose students to consumer theory-preference,utility,revealed preference CO4: This paper also introduce students to production theory and cost theory
Intermediate Macroeconomics - I	CO1: Introduce students to formal modelling of a macroeconomy in terms of analytical tools CO2: It discussses various alternatives theories of output and employment determination in closed economy CO3: It introduce students to various theoretical issues related to an open economy CO4: This paper also introduce students to the concept of Inflation,Unemployment and Expectations
Statistical Methods for economics	CO1: This course introduce students with some basic concepts and terminology that are fundamental to statistical analysis and inference CO2: It expose students to probability,probability distribution and continuous random variable. CO3: This course introduce the notion of sampling distribution that act as a bridge between probability theory and statistical inference. CO4: This paper also introduce students with some topics in statistical inference that include point and interval estimation
Intermediate Microeconomics - II	CO1: This course is sequel to Intermediate Microeconomics I CO2: This paper expose students to general equilibrium and welfare CO3: This paper introduce the concept of market structure and Game Theory CO4: This paper also introduce students with imperfect market and topic under information economics
Intermediate Macroeconomics - II	CO1: This course is sequel to Intermediate Macroeconomics I CO2: The students are introduced to the long run dynamic issues like growth and technical progress CO3: This course also provides the micro-foundations to the various aggregative concepts (Consumption,Investment,Money) CO4: This course expose students with fiscal and monetary policy
Introductory Econometrics	CO1: This course provides a comprehensive introduction to basic econometric concepts and techniques CO2: It covers statistical concept of hypothetical testing,estimation and diagnostic testing of simple and multiple regression models. CO3: This course also covers the consequences of and test for misspecification of regression models. CO4: This course also expose students multi collinearity, hetroscedasticity
Indian Economy I	CO1: This course reviews major trends in economic indicators and policy dabates in India in the post independence period. CO2: This course covers trends and policies in poverty,inequalty and unemployment CO3: It also covers Demographic trends and issues in education,health and malnutrition CO4: This course provides international comparisons to India's economy as well.
Development economy I	CO1: This course discuss alternative conceptions of development and their justification CO2: This course covers aggregate models of growth and cross national comparisons of the growth experience CO3: This course provides axiomatic basis for inequality measurement CO4: This course also link political institutions to growth and inequalty

Indian Economy II	**CO1: This course examines sector-specific policies and their impact in shaping trends in key economic indicators in India.** **CO2: This course highlights major policy debates and evaluates the Indian empirical evidence** **CO3: This course cover Indian government policies and performance in agriculture sector.** **CO4: It also covers policies and performance in Industry and services.**
Development Economics II	**CO1: This course covers demographic concepts and their evolution during the process of development** **CO2: The course highlights land labor and credit market** **CO3: This course covers Environment and sustainable development** **CO4: This course also discuss the role of globalization and increased international dependence on the process of development**
International Economics	**CO1: This course develops a systematic exposition of models that try to explain international trade and its determinants** **CO2: This course covers theories of International trade (Ricardo & Heckscher-ohlin models)** **CO3: This course also covers instruments of trade policies.** **CO4: This course expose students to international monetary system and financial globalization**
Public Economics	**CO1: This paper covers study of government policy from the points of view of economic efficiency and equity** **CO2: This course covers government intervention and its implications for allocation,distribution and stabilization** **CO3: This course highlights public good market failure and externalities.** **CO4: This course also covers analysis of government taxation and expenditures.**
Money and Financial Market	**CO1: This course exposes students to the theory and functioning of monetary and financial sectors of the economy.** **CO2: This course highlights the organizations,structure and the role of financial markets and institutions.** **CO3: This course discuss interest rates,monetary management and instruments of monetary control.** **CO4: This course also covers financial and banking sector reforms**
Environmental Economics	**CO1: This course focus on economic causes of environmental problems.** **CO2: It also exposes environmental management through various economic institutions** **CO3: This course covers economic implications of environmental policy** **CO4: This course also discuss international environmental problems**
DATA Analysis	**CO1: This course introduces the students to collection and presentation of data** **CO2: It also discusses how data can be summarized and analysed for drawing statistical inference** **CO3: This course also covers basic of index number** **CO4: This course also introduces students in the use of free statistical software to analyse data**
Research Methodology	**CO1: This course is designed to help students to practice data based research skills.** **CO2: This course also covers research ethic** **CO3: This course help students in analysing data**

Program Name: BA (Hons) English

The idea is to teach and mentor students for enabling them to develop a literary sensibility by going through Classical, Medieval, Modern and contemporary literatures in English or English Translation.
PO2: And give them an adequate training about the critical ways of reading and appreciating literary works of art.
PO3: Critically engage them in academic discussions about the history, theory and practice of literary criticism and the growth of literary theory.
PO4: And encourage them to proactively participate in teaching-learning processes for a deeper understanding of not just texts but also the contexts that contribute to the making of those texts.

Film Studies	**CO1: Dealing as it does with sensitising students about the history, theory and practice of making films.**
English Language Teaching	**CO2: The focus is on the enhancement of reading, writing, speaking, listening skills in English.**
Soft Skills	**CO3: The programme focuses on the development of soft skills in students to maximise their potential and help them pursue their goals succesfully.**
Translation Studies	**CO4: The objective is to engage students in academic discussions about the history, theory and practice of translation with a view to encourage them to choose the task of translation for the dessimination of knowledge systems.**
Creative Writing	**CO1: It provides students many opportunities to learn those tools and techniques for writing which enable them to express their ideas, thoughts, emotions and experiences in a persuasive way.**
Business Communication	**CO2: The idea is to train students about the verbal and written aspects pf Business Communication.**
Technical Communication	**CO3: The the objective is to teach students about the ways and means of technical writing,.**
Modern European Drama	**CO4: This paper focusses on the academic discussions about the text and context dealing as they do with various aspects of modernity and its manifestations in Drama.**
Literary Theory	**CO1: Dessiminating both information and insight about the genesis and growth of all prominent theoretical approaches to understand and interpret literature.**
World Literatures	**CO2: This course particularly focusses on the concept of world literature, the role of translation in the making of World Literatures and in the ways of circulation and reception of literary texts globally.**
Partition Literature	**CO3: The idea is to sensitise students about the literary works which revolve around the theme of partition in a critically engaging manner.**
Research Methodology	**CO4: Dessiminating relevant information and insight about the ways and methods of doing academic research.**
Travel Writing	**CO1: The focus is on making students aware of travel accounts and experiences written in a creatively convincing way.**
Autobiography	**CO2: The objective is to make students understand emergence and growth of autobiography as a literary genre, and to read understand and interpret in a critical way.**
Literature and Cinema	**CO3: The idea is to teach students about the relationship between literature and cinema and the influence one generates on the another for a deeper understanding of socio-politically relevant issues.**
British Literature- 18th Century entury	**CO4: The idea is to motivate students to have a critical understanding of text and context which revolved around those texts produced during the 18th century**
Postcolonial Literature	**CO1: The idea is to read, understand and interpret literatures from the former colonies of the Empire as Postcolonial Literatures aiming to dismantle the narratives of Colonial discourse.**
Indian Writing in English	**CO2: The idea is to make students understand literary texts written in English but depicting Indian realities, and also the context that led to the making of those texts.**
British Romantic Literature	**CO3: Focus is on the literature which brought a paradigm shift, decisively disassociating it from the classical literature of the 18th Century, and which emphasised the importance of Self, Subjectivity, Nature, countryside and the language really spoken by the common man.**
British Poetry and Drama-14 to 17th Century	**CO4: The objective is to encourage students develop a critical understanding of poetry and Drama written during this period.**

British Literature - 19th Century	**CO1: British Literature- 19th century: The students are encouraged to have thorough understanding of text and context which contributed to the formation of those texts during the 19th Century**
19th Century European Realism	**CO2 : The idea is to teach students about the ways in which the representation of Realism as a literary movement has taken place so as to make them understand the significance of this specific literary trend.**
American Literature	**CO3 : The focus is on making students understand the literary texts from America in a critical way.**
Popular Literature	**CO4: Focus is on the discussions about the concept of popular Literature, and on highlighting the growth and significance of this genre for contemporary readers**
Women's Writing	**CO1: The focus on making students understand texts dealing as they a do with the experiences of Human life and relationships from a woman's perspective**
British Literature	**CO2: the focus is on making students understand literature from Britain in a critical manner.**
Literature of the Indian Diaspora	**CO3: The objective is to encourage students to follow the literary expressions dealing as they do with the diversified experiences of Indian Diaspora.**
British Literature in Post World War II	**CO4: Focus is on academic discussions about the text which revolve around post world war British sociopolitical and cultural realities, placing them in context which led to the making of those texts.**
Literary Criticism	**CO1: The course focuses on the history, theory and practice of critically evaluating literature.**
Science Fiction and detective Literature	**CO2: The objective is to make students understand this genre of literature in a perceptive and critically engaging way.**
Academic Writing and Composition	**CO3: Students are taught the ways and methods of critically reading, thinking and writing.**
Media and Communication Skills	**CO4: The focus is on the role of Media in contemporary times and the importance of communication skills for the undergraduate students to enable them develop a deeper understanding of globalizing world.**
Text and Performance	**CO1: The idea is to inform students about the effective ways of comprehending texts and enhancing the quality of their performance.**
Language and Linguistics	**CO2: The focus is on the scientific study of languages in order to make students understand the nature of Phonetics, Phonology and so on and so forth.**
Contemporary India and Women Empowerment	**CO3: The idea is to make students aware about gender issues and understand the importance of women empowerment.**
Gender and Human Rights	**CO4: The objective is to inform students about the inextricably intertwined relationship between gender and human rights across the world.**
	CO4: This course exposes students in writing project report

Program Name: BA (Hons) HISTORY

PO1: To develop critical thinking for history
PO2: To understand and trace the evolution of political structure
PO3: Describe the religion, socirty and culture

PO4: Understand the agrarian environment: forest, tribes and migrants.

CCI: History of India- I	**CO1: Comprehend the geography and its impact on Indian culture.** **CO2: Distinguish the three culture of the palaeolithic, Mesolithic and Neolithic** **CO3: Comprehend the sources of for the study of the Harappan civilization.** **CO4: Analyst the cultural transition of Aryans at the north and other parts of India, esp. Central India and South India**
CCII: Social Formation and Cultural Patterns of the Ancient and Medieval world	**CO1: 1. Describe the evolution of human kind and its social and cultural adaptation.** **CO2: 2. Comprehend the Mesolithic and Neolithic and its features.** **CO3: 3. Analyst the Bronze age as the urban revolution, civilization and a state** **CO4: 4. Understand the emergence of nomadic pastoralism in West Asia.**
CCIII: History of India-II	**CO1:1. Trace the growth of Janapadas and Mahajanapadas** **CO2: Locate the extend of Muaryan empire and its political structure** **CO3:Comprehend Post-Mauryan kingdoms, the emergence of the Kushanas and the Satavahanas.** **CO4: Discuss the economy and society between 600 to 300 CE**
CCIV:Social Formation and Cultural Patterns of the Ancient and Medieval world	**CO1: Comprehend Rome and Greece: the Polis,, conflict of orders, expansion, Augustan experiment and crisis.** **CO2:Discuss the Feudal societies in Medieval Europe** **CO3: Trace the rise of Islam, the Sunna, the Shia and the Sufis.**
CCV: History of India III (C. 750-1200)	**CO1:1. Debates on the early medieval theory, its topographies and sources.** **CO2: 2. Trace the evolution of political structure: Rajputs, Cholas, Odissa, Arabs and Ghaznavids.** **CO3: 3. Trace the processes to society and economy and urbanization.** **CO4: 4. Analyst the religious, literary and visual cultures: Bhakti, Puranic Hinduism.**
CCVI: Rise of Modern West I	**CO1: 1. Trace the transition from feudalism to capitalism: its problems and theories.** **CO2:2. Reason the origin of early colonial expansions.** **CO3:3. Define Renaissance and it significance.** **CO4:4. Trace the origin, course and result of Europran reformation**
CCVII: History of India-IV (c. 1200-1500)	**CO1:1. Comprehend the survey of sources to comprehend history of India between 1200 to 1500.** **CO2: 2. Analyst the political structurs in India: Sultanate, Rajputs, Vijayanagar and Gujarat.** **CO3: 3. Understand the society and economy to comprehend history of India between 1200 to 1500.** **CO4: 4. Describe the religion, socirty and culture with special reference to Hindu and Muslim relation.**
CCVIII: Rise of Modern West II	**CO1: Understanding the basics of Operational Amplifiers and its parameters.** **CO2: Designing of various Op-Amp circuits** **CO3: Multivibrators based on 555 timers, fixed and variable IC regulators** **CO4: Study of various Signal Conditioning Circuits**
Signals and Systems	**CO1: 1. Trace the growth of 17th century European crisis.** **CO2: 2. Reason the rise of Modern Science from the Renaissance.** **CO3: 3. Describe 17th and 18th century Mercantilism.** **CO4: 4. Debate ideas and impact of the Enlightenment and Industrial Revolution.**
CCIX: History of India V: (C. 1500-1600)	**CO1: 1. Comprehend Persian and Vernaculat literature sources to study 1500 to 1600 c. history of India.** **CO2: 2. Trace the establishment of political authority of the Mughals, Rajputs and the Nayakas.** **CO3:3. Reason the factors for consolidation of polirtical authority.** **CO4:4. Analyst political and religious ideas of Akbar, Sufis Islam and Shias.**
CCX: History of India- VI (C. 1750-1857)	**CO1:1. Debates the society, economy and polity of India in mid- 18th century.** **CO2: 2. Trace the growth of regional kingdoms.** **CO3:3. Trace the ideology of colonial state.**

	CO4:4. Comprehend the economy and society under British India
CCXI: History of Modern Europe-I	CO1: 1. Trace the growth of the French Revolution anf its European repurcussions. CO2: 2. Trace the forces of conservatism and restoration of old regimes. CO3:3. Describe the social and economic transformation under capitalist industrialization.
CCXII: History of India- VII (C. 1600-1750)	CO1: 1. List the sources for the study of Indian history between 1600 and 1750c CO2: 2. Comprehend the political alliances and state formation of the Rajputs and the Marathas. CO3: 3. Analyst the political culture of the Mughals and its arts. CO4: 4. Understand the agrarian environment: forest, tribes and migrants.
CCXIII: History of India-VIII (c. 1857-1950)	CO1: 1. Comprehend caste, community and nation and anti- brahmanical trends. CO2: 2. Reason the rise of modern industry under colonial rule and famine CO3: 3. Compare the Moderates, extremist and the revolutionares CO4:4. Describe the founation of Gandhian nationalisnm.
CCXIV: History of Modern Europe II	CO1:1. Analyst the need for the remaking of ststes in the 19th and 20th century: Germany, Italy and Balkans. CO2: 2. Understand Tsarist Russia and the causes of Bolshevik revolution. CO3. Comprehend the theories and mechanism of Imperialism. CO4:4. Trace the cultural and intellectual development since c. 1850.
DSE I: History of the USA: Independence to Civil War	CO1:1. Trace the historical background to the origin of USA. CO2:2. Analyst the limitation of American Democracy. CO3:3. Reason the growth of early capitalism and slavery. CO4: 4. Discuss US quence for domination by means of wars and diplomacy
DSE II: History of the USSR: From Revolution to ww ii (1917- 1945)	CO1: 1. Trace the growth and development of the Bolshevik power on Russia. CO2: 2. Comprehend Collectivisation and industrialisation. CO3:3. Describe the ideology, purposes and propaganda of the Party and state. CO4:4. Analyst soviet policies: Comintern, internationalism and WW II
DSE III: History of Africa, c. 1500 to 1960 c.	CO1:1. Trace the growth of trade between erope and sub- saharan african. CO2: 2. Understand the economic condation of africa between 1500-1960. CO3: 3. Understand state formation of africa. CO4:4. With the help of case studies try to understant national liberation movement.
DSE IV: Gender in Indian History up to 1500	CO1. unterstand the difference between sex and gendre CO2: 2. Analysis gender relation in ancient india. CO3: 3. Understand gender in cultural and religious frames CO4: . Trace the representations of women and man in indo-persian, sanskrit and rajput traditions.
DSE V: History of the USA: Reconstruction to New Age Politics	CO1: 1. Understand the nature of ku klux klan in usa CO2: 2. Analysis the growth of capitalism in usa CO3: 3. Trace the gender roles in usa CO4: 4. Understand the african-american movement.
DSE VI: History of the USSR: The Soviet Experience (1945-1991)	CO1: Understand the origions of world war 2 CO2: Analysis the khrushchev era. CO:3. Understand the political and economic condations during cold war. CO:4. Understand problems of growth and reform of the soviet economic system.
DSE VII: History of Latin America, c.1500-c.1960s	CO:1. Understand the colonization and conquest of central and south america by spaina nd portugal. CO:2. Analysis class and state formation. CO:3. Discuss the importance of literature, music and sports in 1930 to 1960s. CO:4. Understand gender, race and culture from 1500 to 1960s.
DSE VIII: Gender in Indian History, c. 1500-1950	CO:1unterstand the difference between sex and gendre CO:2Analysis gender relation in modern india. CO:3Understand gender in cultural and religious frames. CO:4understanding women and partition.
DSE IX: History of Modern China (1840-1960)	CO:1. Trace the growth of imperialism in china. CO:2. Understand the revoluation of 1911. CO:3. Anylisis the formation of the CCP. CO:4. Understand the may fourth movment of 1919.
DSE X: History of Southeast Asia up to the 16th century	CO:1. Understand the prehistory of southeast asia. CO:2. Anylisis the state formation of southeast asia in 16th century. CO:3. Understand the trade route. CO:4. Understand the art and architecture.
DSE XI: Global Environmental Perspectives	CO:1. Understand anthropocentricism and anthropocene. CO:2. Anylisis native and invasions CO:3. Understand issue of climate change. CO:4. Understand colonialism
DSE XII: History of Modern Japan and Korea (1868-1950s)	CO:1. Understant transition from feudalism to capitalism CO:2. Anylisis the crisis of the tokugawa. CO:3. Understand japanese inperialisim. CO:4. Understand korea's relations with china.
DSE XIII: Modern Southeast Asia: 17th to the 20th Century	CO:1. Understand issues in history and historiography. CO:2. Anylisis colonialism. CO:3. Understand race. CO:4. Understand indonesian revoluation.
DSE XIV: The Making of Contemporary India (1950-1990s)	CO:1. Understand laying foundation of independent india. CO:2. Understand india's foreign policy. CO:3. Anylisis education, science and technology. CO:4. Understand the importance of print meida.
GE I: Delhi through the Ages	CO:1. Understand the pre history of delhi. CO:2. Understand delhi in asokan time CO:3. Analysis 1857 in delhi

	CO:4. Understand partition and violence in the context of delhi.
GE II: History of Science and Technology	CO:1. Understand historiography of sicence CO:2. Understand coper, bronze and iron age. CO:3. Understand the mathematics and astronomy from ancient to modern time. CO:4. Anylisis medieval state.
GE III: Issues in the Contemporary World: 1945-2000	CO:1. Understand the concept of globalization CO:2. Understand the international relation. CO:3. Understand the states and economics. CO:4. Understand the new social movements.
GE IV: Cultural Diversity in India	CO:1. Understand religious processes CO:2. Understand visual culture in india. CO:3. Analysis music and performance in india. CO:4. Understand sport in india.
GE V: Perspectives on Environmental History	CO:1. Understand anthropocentricism and anthropocene. CO:2Analysis native and invasions CO:3. Understand issue of climate change. CO:4. Understand colonialism
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GE VII: Religion and Religiosity	CO:1. Understand puranic hinduism CO:2. Analysis buddhism and jainism. CO:3. Understand conversions and identities in india. CO:4. Understand identity and the politics of religion.
GE VIII: Inequality and Difference	CO:1. Understand caste varna and jati. CO:2. Understand class, status and power. CO:3. Understand the gender relations. CO:4. Understand equality and the indian constitution.
SEC I: Understanding Heritage	CO:1. Understand the meaning of antiquity. CO:2. Understand the meaning of heritage. CO:3. Understand the importance of travel. CO:4. Analysis the challenges facing tangible and intangible heritage.
SEC II: Archives and Museums	CO:1. Understand the types of archives and museums. CO:2. Understanding the traditions of preservation in india CO:3. Understand the importance of museums. CO:4. Importance of preservation.
SEC III: Indian Art and Architecture	CO:1. Understand the indian art in ancient time. CO:2. Understand the indian art in south and north india. CO:3. Amylases the art in mughal period. CO:4. Understand the importance of architecture.
SEC IV: Understanding Popular Culture	CO:1. Understand the popular culture.
DSE VI: History of the USSR: The Soviet Experience (1945-1991)	CO:2. Analysis the folk art. CO:3. Understand the importance of theatre and music. CO2: Analysis the khrushchev era. CO:3. Understand the political and economic condations during cold war. CO:4. Understand problems of growth and reform of the soviet economic system.
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DSE XIV: The Making of Contemporary India (1950-1990s)	CO:1. Understand laying foundation of independent india. CO:2. Understand india's foreign policy.

	CO:3. Anylisis education, science and technology. CO:4. Understand the importance of print meida.
GE I: Delhi through the Ages	CO:1. Understand the pre history of delhi. CO:2. Understand delhi in asokan time CO:3. Analysis 1857 in delhi CO:4. Understand partition and violence in the context of delhi.
GE II: History of Science and Technology	CO:1. Understand historiography of sicence CO:2. Understand coper, bronze and iron age. CO:3. Understand the mathematics and astronomy from ancient to modern time. CO:4. Anylisis medieval state.
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SEC IV: Understanding Popular Culture	CO:1. Understand the popular culture. CO:2. Analysis the folk art. CO:3. Understand the importance of theatre and music.

Program Name: B.A (Hons) Political Science

PO1: To develop the ability to learn the importance of dialogue, deliberation, expression, effective participation in politics which will be reflected through leadership, enlightened citizenship, political analysis, expertise in foreign policy and diplomacy etc.
PO2: To develop the skill to think critically, logically and analytically and use the essence of the study of Political Science for the development of human life in the society.
PO3: To enrich the discourse though the study of political theories, ideologies, concepts which will enable the students to resolve various emerging socio-political, economic conflicts and challenges.
PO5:Identify applications of Political discourse in other disciplines and in the international politics and organisations in the era of globalisation, leading to enhancement of career prospects in a plethora of
PO6: To introduce the students to a number of theories, ideologies, movements, interdisciplinary studies,laws and constitutional practices which are useful in resolving conflict and bringing socio-economic

Understanding Political Theory	CO1: To introduce the students to the idea of political theory, its history and approaches. CO2: To make an assessment of its critical and contemporary trends. CO3: The course is designed to reconcile political theory and practice through reflections on the ideas and practices related to democracy. CO4: To develop critical thinking and theoritical understanding of the various dynamics of politics among the students.
Constitutional Government and Democracy in India	CO1: The objective of the course is to acquaints students with the constitutional design of state structures and institutions, and their actual working over time. CO2:To study the Indian Constitution accommodates conflicting impulses (of liberty and justice, territorial decentralization and a strong union, for instance) within itself. CO3:The course traces the embodiment of some of these conflicts in constitutional provisions, and shows how these have played out in political practice. CO4: It further encourages a study of state institutions in their mutual interaction, and in interaction with the larger extra-constitutional environment.
Political Theory-Concepts and Debates	CO1: : This course is divided into two sections. Section A helps the student familiarize with the basic normative concepts of political theory. CO2: Each concept is related to a crucial political issue that requires analysis with the aid of our conceptual understanding. CO3: This exercise is designed to encourage critical and reflective analysis and interpretation of social practices through the relevant conceptual toolkit. CO4: It introduces the students to the important debates in the subject.

	CO5:These debates prompt us to consider that there is no settled way of understanding concepts and that in the light of new insights and challenges, besides newer ways of perceiving and interpreting the world around us, we inaugurate new modes of political debates.
Political Process in India	CO1: To study actual politics in India diverges quite significantly from constitutional legal rules. CO2: To have an understanding of the political process thus calls for a different mode of analysis - that offered by political sociology. CO3: This course maps the working of 'modern' institutions, premised on the existence of an individuated society, in a context marked by communitarian solidarities, and their mutual transformation thereby. CO4: It also familiarizes students with the working of the Indian state, paying attention to the contradictory dynamics of modern state power.
Introduction to the Comparative Government and Politics	CO1:This course is a foundational course in comparative politics. CO2: The purpose of this study is to familiarize students with the basic concepts and approaches to the study of comparative politics. CO3: More specifically the course will focus on examining politics in a historical framework while engaging with various themes of comparative analysis in developed and developing countries. CO4: To study the emerging issues and challenges in comparative politics.
Perspectives on Public Administration	CO1: : The course provides an introduction to the discipline of public administration. CO2: This paper encompasses public administration in its historical context with an emphasis on the various classical and contemporary administrative theories. CO3:The course also explores some of the recent trends, including feminism and ecological conservation and how the call for greater democratization is restructuring public administration. CO4: The course will also attempt to provide the students a comprehensive understanding on contemporary administrative developments.
Perspective on International Relations and World History	CO1: This paper seeks to equip students with the basic intellectual tools for understanding International Relations. CO2: It introduces students to some of the most important theoretical approaches for studying international relations. CO3: A key objective of the course is to make students aware of the implicit Euro - centricism of International Relations by highlighting certain specific perspectives from the Global South. CO4: It provides a fairly comprehensive overview of the major political developments and events starting from the twentieth century. Students are expected to learn about the key milestones in world history and equip them with the tools to understand and analyze the same from different perspectives.
Political Processes and Institutions in Comparative Perspective	CO1: In this course students will be trained in the application of comparative methods to the study of politics. CO2: The course is comparative in both what we study and how we study. CO3: In the process the course aims to introduce undergraduate students to some of the range of issues, literature, and methods that cover comparative political. CO4: This course studies electoral system, party system, Nation-States, democracy and federalism from comparative perspective and the emerging trend in these discourses.
Public Policy and Administration in India	CO1: The paper seeks to provide an introduction to the interface between public policy and administration in India. CO2: The essence of public policy lies in its effectiveness in translating the governing philosophy into programs and policies and making it a part of the community living. CO3: It deals with issues of decentralization, financial management, citizens and administration and social welfare from a non-western perspective. CO4: This course suggests the measures to bring administration more closer to the people.
Global Politics	CO1:This course introduces students to the key debates on the meaning and nature of globalization by addressing its political, economic, social, cultural and technological dimensions. CO2: In keeping with the most important debates within the globalization discourse, it imparts an understanding of the working of the world economy, its anchors and resistances offered by global social movements while analyzing the changing nature of relationship between the state and trans-national actors and networks. . CO3: The course also offers insights into key contemporary global issues such as the proliferation of nuclear weapons, ecological issues, international terrorism, and human security before concluding with a debate on the phenomenon of global governance. CO4: It also studies global shifts in power and global governance system.
Classical Political Philosophy	CO1: This course goes back to Greek antiquity and familiarizes students with the manner in which the political questions were first posed. CO2: In this course Machiavelli comes as an interlude inaugurating modern politics followed by Hobbes and Locke. CO3: This is a basic foundation course for students which provides base to learn philosophy. CO4: This course helps the students to have a deep understanding of political concepts and ideas through the mirror of the political thinkers.
Indian Political Thought-I	CO1:This course introduces the specific elements of Indian Political Thought spanning over two millennia. CO2: The basic focus of study is on individual thinkers whose ideas are however framed by specific themes. CO3:The course as a whole is meant to provide a sense of the broad streams of Indian thought while encouraging a specific knowledge of individual thinkers and texts. CO4:Selected extracts from some original texts are also given to discuss in class. The list of additional readings is meant for teachers as well as the more interested students.
Modern Political Philosophy	CO1:Philosophy and politics are closely intertwined. This course attemps to understand this intertwined in a broader perspective. CO2:This course explores this convergence by identifying four main tendencies here.

	CO3:Students will be exposed to the manner in which the questions of politics have been posed in terms that have implications for larger questions of thought and existence. CO4: Through this course the students get the knowledge about the essence of politics and political life which shapes other aspects of life.
Indian Political Thought-II	CO1:Based on the study of individual thinkers, the course introduces a wide span of thinkers and themes that defines the modernity of Indian political thought. CO2:The objective is to study general themes that have been produced by thinkers from varied social and temporal contexts. CO3:In this course the selected extracts from original texts are also given to discuss in the class. CO4:The course also studies the relevance of these ideas in modern period.
G.E.(Interdisciplinary) Nationalism in India	CO1:The purpose of this course is to help students understand the struggle of Indian people against colonialism. CO2: It seeks to achieve this understanding by looking at this struggle from different theoretical perspectives that highlight its different dimensions. CO3:The course begins with the nineteenth century Indian responses to colonial dominance in the form of reformism and its criticism and continues through various phases up to the events leading to the Partition and Independence. CO4: In the process, the course tries to highlight its various conflicts and contradictions by focusing on its different dimensions: communalism, class struggle, caste and gender questions.
G.E.(Interdisciplinary) Contemporary Political Economy	CO1:The objective of this course is to understand the growing recognition worldwide of the importance of the political economy approach to the study of global order. CO2:this course has the objectives to familiarize the students with the different theoretical approaches. CO3: The objective of the course is also to give a brief overview of the history of the evolution of the modern capitalist world CO4: To highlight the important contemporary problems, issues and debates on how these should be addressed.
G.E.(Interdisciplinary) Women, Power and Politics	CO1:This course opens up the question of women's agency, taking it beyond 'women's empowerment' and focusing on women as radical social agents. CO2:It attempts to question the complicity of social structures and relations in gender inequality. CO3:This is extended to cover new forms of precarious work and labour under the new economy. CO4: In this course special attention will be paid to feminism as an approach and outlook. The course is divided into broad units, each of which is divided into three sub-units.
G.E.(Interdisciplinary)Gandhi and the Contemporary World	CO1:Locating Gandhi in a global frame, the course seeks to elaborate Gandhian thought and examine its practical implications. CO2:It will introduce students to key instances of Gandhi's continuing influence right up to the contemporary period and enable them to critically evaluate his legacy. CO3: This course also studies the importance of Gandhi and his ideas which expressed through popular culture in the contemporary perion. CO4: It also studies the inspiring movements based on Gandhi's ideas to resolve contemporary issues.
G.E.(Interdisciplinary) Uniderstanding Ambedkar	CO1:This course is broadly intended to introduce Ambedkar's ideas and their relevance in contemporary India, by looking beyond caste. CO2: It studies Ambedkar's philosophical contributions towards Indian economy and class question, sociological interpretations on religion, gender, caste and cultural issues; ideas on politics such as concepts of nation, state, democracy, law and constitutionalism are to be pedagogically interrogated and interpreted. CO3:This will help students to critically engage themselves with the existing social concerns, state and economic structures and other institutional mechanisms. CO4:This also will facilitate them to strengthen their creative thinking with a collective approach to understand ongoing social, political, cultural and economic phenomena of the society.
G.E.(Interdisciplinary) Governance: Issues and Challenges	CO1:This paper deals with concepts and different dimensions of governance highlighting the major debates in the contemporary times. CO2:There is a need to understand the importance of the concept of governance in the context of a globalising world, environment, administration, development. CO3:The essence of governance is explored through the various good governance initiatives introduced in India. CO4: It also studies the emerging issues and challenges to governance system.
G.E.(Interdisciplinary) Politics of Globalisation	CO1:The objective of this generic elective paper is to make students from diverse background understand the process of globalization from a political perspective. CO2:This paper will create a broad understanding of the issues and processes globalization based on critical analysis of the various anchors and dimensions of globalization. CO3: It also studies the changing dimension of the politics of globalisation. CO4: This course studies the impact of globalisation in local politics
G.E.(Interdisciplinary) United Nations and Global Politics	CO1:This course provides a comprehensive introduction to the most important multilateral political organization in international relations. CO2:It provides a detailed account of the organizational structure and the political processes of the UN, and how it has evolved since 1945, especially in terms of dealing with the major global conflicts. CO3:The course imparts a critical understanding of the UN's performance until now. CO4: It also studies the imperatives as well as processes of reforming the organization in the context of the contemporary global system.
DSE: Citizenship in a Globalising World	CO1:The idea of citizenship holds a prominent place in human history. It defines who belongs to a political community and who does not. CO2:The course studies citizenship assigns a legal status, a set of rights, immunities and protections in the modern age. CO3::In many ways, the trajectory of the debates surrounding citizenship have delved into the heart of justice in a community, namely the relationship between the individual and the collective, the meaning of membership, and the distribution of benefits and burdens of that membership. CO4:It also focuses on some concerns about these normative dimensions of citizenship have changed over time.

DSE: Human Rights in a Comparative Perspective	**CO1:This course attempts to build an understanding of human rights among students through a study of specific issues in a comparative perspective. CO2:It is important for students to see how debates on human rights have taken distinct forms historically and in the contemporary world. CO3:The course seeks to anchor all issues in the Indian context, and pulls out another country to form a broader comparative frame. Students will be expected to use a range of resources, including films, biographies, and official documents to study each theme. CO4:Thematic discussion of sub-topics in the second and third sections should include state response to issues and structural violence questions.**
DSE: Development Process and Social Movement in the Contemporary India	**CO1:Under the influence of globalization, development processes in India have undergone transformation to produce spaces of advantage and disadvantage and new geographies of power. CO2:The high social reproduction costs and dispossession of vulnerable social groups involved in such a development strategy condition new theatres of contestation and struggles. CO3:A variety of protest movements emerged to interrogate and challenge this development paradigm that evidently also weakens the democratic space so very vital to the formulation of critical consensus. CO4:This course proposes to introduce students to the conditions, contexts and forms of political contestation over development paradigms and their bearing on the retrieval of democratic voice of citizens.**
DSE: Public Policy in India	**CO1:This course provides a theoretical and practical understanding of the concepts and methods that can be employed in the analysis of public policy. CO2:It uses the methods of political economy to understand policy as well as understand politics as it is shaped by economic changes. CO3:The course will be useful for students who seek an integrative link to their understanding of political science, economic theory and the practical world of development and social change. CO4: It also studies the changing nature of public policy in India.**
DSE: Colonialism and Nationalism in India	**CO1:The purpose of this course is to help students understand historically the advent of colonialism in India and the emergence of the discourse on nationalism as a response to it. CO2: The aim is to engage with theoretical explanations of colonialism and nationalism in India. CO3:At the same time the course study the social, political and institutional practices that unfolded in that period, gradually paving way towards independence and democracy in India. CO4:It also studies institutional developments and outcome of it.**
DSE: India's Foreign Policy in a Globalising World	**CO1:This course's objective is to teach students the domestic sources and the structural constraints on the genesis, evolution and practice of India's foreign policy. CO2:The endeavour is to highlight integral linkages between the 'domestic' and the 'international' aspects of India's foreign policy by stressing on the shifts in its domestic identity and the corresponding changes at the international level. CO3:Students will be instructed on India's shifting identity as a postcolonial state to the contemporary dynamics of India attempting to carve its identity as an 'aspiring power'. CO4: It Studies India's evolving relations with the superpowers during the Cold War and after, bargaining strategy and positioning in international climate change negotiations, international economic governance, international terrorism and the United Nations facilitate an understanding of the changing positions and development of India's role as a global player since independence.**
DSE: Feminism: Theory and Practice	**CO1:The aim of the course is to explain contemporary debates on feminism and the history of feminist struggles. CO2:The course begins with a discussion on construction of gender and an understanding of complexity of patriarchy and goes on to analyze theoretical debates within feminism. Part II of the paper covers history of feminism in the west, socialist societies and in anti-colonial struggles. CO3:Part III focuses a gendered analysis of Indian society, economy and polity with a view to understanding the structures of gender inequalities. CO4:And the last section aims to understand the issues with which contemporary Indian women's movements are engaged with.**
DSE: Dilemmas in Politics	**CO1:This course is designed to explore, analyze and evaluate some of the central issues of contemporary world. CO2: It also explores values and debates in the/ contemporary world that has a bearing on normative political inquiry. CO3: It study the dilemmas in the discourse of politics.** **CO4:The eight issues selected as dilemmas, though not exhaustive, are some of the salient ones discussed across societies.**
SEC: Your Laws and Your Rights	**CO1:More often than not, when we talk of laws we mean authoritatively sanctioned rules, which are considered essential for a well-ordered society. Yet laws in a democracy are also about constituting a society marked by equality, freedom, and dignity. CO2:The rights approach to law has assumed importance in democracies, precisely because of people's struggles to broaden the understanding of law as something which reflects the will of the people. CO3:As such law becomes an important source of rights and duties, which develop and strengthen alongside institutions of representative democracy, constitutional norms, and the rule of law. CO4:This course aims to understand law as a source of rights, as a progressively widening sphere of substantive justice, welfare, and dignity. This relationship between laws and rights will be studied through specific values which have come to be seen as integral for a democratic society viz., equality and non-discrimination, empowerment, redistribution and recognition of traditional rights etc.**
SEC:Public Openion and Survey Research	**CO1:this course will introduce the students to the debates, principles and practices of public opinion polling in the context of democracies, with special reference to India. CO2:It will familiarize the students with how to conceptualize and measure public opinion using quantitative methods. CO3:particular attention being paid to developing basic skills pertaining to the collection, analysis and utilization of quantitative data. CO4: This course not only provides an opportunity to understand the relation between rights and laws, but also explores the areas where they could empower themselves and explore career opportunities.**
SEC: Legislative Practices and Procedures	**CO1: To acquaint the student broadly with the legislative process in India at various levels, introduce them to the requirements of peoples' representatives and provide elementary skills to be part of a legislative support team and expose them to real life legislative work. CO2: These will be, to understand complex policy issues, draft new legislation, track and analyse ongoing bills, make speeches and floor statements, write articles and press releases, attend legislative meetings, conduct meetings with various stakeholders.**

	CO3: the study will understand monitor media and public developments, manage constituent relations and handle inter-office communications. CO4:It will also deepen their understanding and appreciation of the political process and indicate the possibilities of making it work for democracy.
SEC:Peace and Conflict Resolution	CO1:The objective of an undergraduate application course for common students in Peace and Conflict Studies will cover in-depth knowledge of conflict analysis, conflict resolution, conflict prevention, as well as the historical and cultural context of organized violence. CO2:Peace and Conflict Resolution addresses the sources of war, social oppression and violence and the challenges of promoting peace and justice internationally and domestically. It also introduces more equitable, cooperative and nonviolent methods that can be used to transform unjust, violent or oppressive world situations. CO3: This course provides students with an overview of the Peace and Conflict Studies discipline, including key concepts and related theories. The course is designed to familiarize students with the historical background of various peace movements, to analyze principles used to resolve conflict, and to provide a view of how peace and conflict resolution are being pursued today. CO4:The course will also cover extensive understanding of current research and development within the field of peace and conflict studies and perspective of the environment, gender, migration, and ethnicity.

Program Name: B.A (Hons) Sanskrit

PO1: To develop the ability to learn translation from Sanskrit to other languages and vice versa.
PO2: To increase interest from academia as well as industry in the ancient Indian repository of knowledge which is primarily available in Sanskrit has led to rising demand for Sanskrit experts.
PO3: To provide wider scope in journalism in Sanskrit both in print and electronic media.

Classical Sanskrit Literature (Poetry)	CO1: To get students acquainted with Classical Sanskrit Poetry. CO2: It intends to give an understanding of literature, through which students will be able to appreciate the development of Sanskrit Literature. CO3: The course also seeks to help students to negotiate texts independently. CO4: To learn the recitation of Sanskrit shlokas in a poetic way.
Critical Survey of Sanskrit Literature	CO1: The objective of this course is to introduce students acquainted with the journey of Sanskrit literature from Vedic literature to Purāṇa CO2: It also intends to give an outline of different shastric traditions, through which students will be able to know the different genres of Sanskrit Literature and Śāstras CO3: To know the history of vaidic literature and culture. CO4: Comparison between classical sanskrit literature and modern sanskrit literature.
Classical Sanskrit Literature (Prose)	CO1: This course aims to acquaint students with Classical Sanskrit Prose literature. CO2: Origin and development of prose, Important prose romances and fables Sanskrit are also included here for students to get acquainted with the beginnings of Sanskrit Prose literature. CO3: To learn the pronunciation of classical sanskrit literature prose. CO4: The course also seeks to help students negotiate texts independently.
Self Management in the Gītā	CO1: The objective of this course is to study the philosophy of self-management in the Gītā. CO2: The course seeks to help students negotiate the text independently without referring to the traditional commentaries so as to enable them to experience the richness of the text. CO3: To know the Cognitive and emotive apparatus of Gita. CO4: To learn Self management through devotion
Classical Sanskrit Literature (Drama)	CO1: This course aims to acquaint students with three most famous dramas of Sanskrit literature which represent three stages in the growth of Sanskrit drama. CO2: To know the origin and development of sanskrit dramas. CO3:To know Some important dramatists and dramas: Bhāsa, Kālidāsa, Śūdraka, Viśākhadatta, ŚriHarṣa, Bhavabhūti, Bhaṭṭanārāyaṇa and their works. CO4:Explanation of terms like nāndī, prastāvanā, sūtradhāra, naṭī, viṣkambhaka, vidūṣaka, kañcukī,
Poetics and literary criticism	CO1: The study of sāhityaśāstra (Sanskrit Poetics) embraces all poetic arts and includes concepts like alaṅkāra, rasa, rīti, vakrokti, dhvani, aucitya etc. CO2: The entire domain of Sanskrit poetics has flourished with the topics such as definition of poetry and divisions, functions of word and meaning, theory of rasa and alaṁkāra (figures of speech) and chandas (metre), etc. CO3: This course develops capacity for creative writing and literary appreciation. CO4:To know the figures of speech and Meter.
Indian Social Institutions and Polity	CO1:To understand the Social institutions and Indian Polity have been highlighted in Dharma-śāstra Literature. CO2: To learn the Structure of Society and Values of Life CO3: The aim of this course is to make the students acquainted with various aspects of social institutions and Indian polity as propounded in the ancient Sanskrit texts such as Saṁhitās, Mahābhārata, Purāṇa, Kauṭilya's Arthaśāstra and other works known as Nītiśāstra. CO4: To know the Indian Polity : Origin and Development.
Indian Epigraphy, Paleography and Chronology	CO1: This course aims to acquaint the students with the epigraphical journey in Sanskrit, the only source which directly reflects the society, politics, geography and economy of the Time. CO2: The course also seeks to help students to know the different styles of Sanskrit writing. CO3: To know the Importance of Indian Inscriptions in the reconstruction of Ancient Indian History and Culture CO4: An Introduction to Ancient Indian Scripts.

Modern Sanskrit Literature	CO1: The purpose of this course is to expose students to the rich & profound tradition of modern creative writing in Sanskrit, enriched by new genres of writing. CO2: An introduction of Gitikāvya and Other genres. CO3: General Survey of modern sanskrit literature. CO4: A Critical Survey of post Independence Sanskrit Literature.
Sanskrit and World Literature	CO1: This course is aimed to provide information to students about the spread & influence of Sanskrit literature and culture through the ages in various parts of the world in medieval & modern times. CO2: To know the Vedic cultural elements in ancient Eastern and Western societies. CO3: A general survey of the Classical Sanskrit Literature in the Eastern and Western literature. CO4: Dara Shikoh's Persian Translation of Upanisads and their Influence on Sufism, Latin translation and its influence on Western thought.
Vedic Literature	CO1: This course on Vedic literature aims to introduce various types of vedic texts. CO2: Students will also be able to read one Upaniṣad, namely, Muṇḍaka, where primary Vedānta-view is propounded. CO3: To learn the concept of vaidic grammar. CO4: To learn basic concepts of samhita and brahman.
Ontology and Epistemology	CO1: This course aims to get the students acquainted with the cardinal principles of the Nyāya-Vaiśeṣika philosophy through the Tarkasaṁgraha and to enable students to handle philosophical texts in Sanskrit. CO2: It also intends to give them an understanding of essential aspects of Indian Philosophy. CO3: To know the Meaning and purpose of darśana, general classification of philosophical schools in classical Indian philosophy CO4: To understand Realism (yathārthavāda or vastuvāda) and Idealism (pratyayavāda), Monism (ekattvavāda), Dualism (dvaitavavāda) & Pluralism (bahuttvavāda) ; dharma (property)-dharmi (substratum).
Sanskrit Composition and Communication	CO1: This paper aims at teaching composition and other related informations based on Laghusiddhāntakaumudī Vibhaktyartha Prakaraa. CO2: Understand the basic concepts of paninian grammar.

Program Name: B.A. Prog.

PO1: To develop the skill to think critically, logically and analytically and use the essence of the study of various papers of B.A.Programme for the better career and for the development of human life in the society.
PO2: To introduce the students to a
PO3:Identify applications of the discourses and their interdisciplinary studies in the era of globalisation leading to enhancement of career prospects in a plethora of fields and research.

Core Economics III: Principles of Macroeconomics–I	CO1:This course introduces students to the basic concepts in Macroeconomics. CO2: To study Macroeconomics deals with the aggregate economy. CO3: In this course the students are introduced to the definition, measurement of the macroeconomic variables like GDP, consumption, savings, investment and balance of payments. CO4: The course also discusses various theories of determining GDP in the short run.
Core Economics IV: Principles of Macroeconomics–II	CO1: This is a sequel to Principles of Macroeconomics–I. CO2: It analyses various theories of determination of National Income in greater detail. CO3: It also introduces students to concept of inflation. CO4: It studies its relationship with unemployment and some basic concepts in an open economy.
Discipline Specific Elective I	
DSE 1: Economic Development and Policy in India–I	CO1: This course reviews major trends in aggregate economic indicators in India and places these against the backdrop of major policy debates in India in the post- Independence period. CO2: To study issues in growth, development and sustainability. CO3:To understand the factors in development, population and economic development, development CO4:To study Indian development experience.
DSE 2: Money and Banking	CO1: This course exposes students to the theory and functioning of the monetary and financial sectors of the economy. CO2: It highlights the organization, structure and role of financial markets and institutions. CO3:To discuss interest rates, monetary management and instruments of monetary control. CO4:To study financial and banking sector reforms and monetary policy with special reference to India are also covered.
DSE 3: Environmental Economics	CO1:This course introduces students to concepts, methods and policy options in managing the environment using tools of economic analysis. CO2: This course should be accessible to anyone with an analytical mind and familiarity with basic concepts of economics. CO3: Since several environmental problems are caused by economic activity (for instance, carbon emissions, overharvesting of renewable resources and air and water pollution as a by-product of industrial activity). CO4: This course examines different approaches to adjusting behaviour through economic institutions such as markets and incentives as well as through regulation, etc.
Discipline Specific Elective II	
DSE 4: Economic Development and Policy in India–II	CO1: To study building on the more aggregative analysis of trends in the Indian Economy offered in Economic Development and Policy–I. CO2:To examines sector-specific trends in key indicators and their implications in the post-Independence period. CO3:To study agriculture, industry . CO4: To study foreign trade.
DSE 5: Economic History of India 1857-1947	CO1: This course analyses key aspects of Indian economic development during the second half of British colonial rule. CO2: In doing so, it investigates the place of the Indian economy in the wider colonial context. CO3:The mechanisms that linked economic development in India to the compulsions of colonial rule. CO4:This course links directly to the course on India's economic development after independence in 1947.
DSE 6: Public Finance	CO1: This course is a non-technical overview of government finances with special reference to India. CO2:The course does not require any prior knowledge of economics. CO3:The study will look into the efficiency and equity aspects of taxation of the centre, states and the local governments and the issues of fiscal federalism and decentralisation in India. CO4:The course will be useful for students aiming towards careers in the government sector, policy analysis, business and journalism.

Skill Enhancement Course (SEC) I: Financial Economics	**CO1:This course introduces students to the economics of finance.** **CO2:The course does not require any prior knowledge of economics.** **CO3: This course should be accessible to anyone with an exposure to elementary mathematics.** **CO4: This course is designed to impart the essential aspects of financial asset valuation.**
Skill Enhancement Course (SEC) II: Data Analysis	**CO1:This course introduces the student to collection and presentation of data.** **CO2: It also discusses how data can be summarized and analysed for drawing statistical inferences.** **CO3: The students will be introduced to important data sources that are available.** **CO4: It will also be trained in the use of free statistical software to analyse data.**
DSC-1 **The Individual and Society**	**CO1: It studies the essays, Stories.** **CO2: It also studies Poems related to individual and society.** **CO3: It brings out different narratives of Cultural Diversity** **CO4: It emphasises the study of modern Indian literature.**
2) Compulsory: English/MIL Communication English Communication **Credits: 2**	
2) Compulsory: English/MIL Communication English Communication **Credits: 2**	**CO1: The purpose of this course is to introduce students to the theory, fundamentals and tools of communication**
2) Compulsory: English/MIL Communication English Communication **Credits: 2**	**CO2: The purpose of this study also is to develop in students vital communication skils which should be integral to personal, social and professional interactions.** **C03: One of the critical links among human beings and an important thread that binds society together is the ability to share thoughts, emotions and ideas through various means of communication: both verbal and non-verbal.** **CO4: In the context of rapid globalization and increasing recognition of social and cultural pluralities, the significance of clear and effective communication has substantially enhanced.**
Sem.2 **AECC-English Communication Skills**	**C01: To study various skills to improve the communication in English language.** **C02: To analyse various techniques to make the students understand easily.** **C03: To give exercises and conduct group discussions with the students to improve their English communication skills which will help them in their career advancement and confidence building** **C04: To do certain exercises with the students to improve their communication skills and confidence building.**
Sem.2 **DSC-1B** **Selections (poems, short stories) from Modern Indian Literature**	**C01: To study the Modern Indian Literature in a broader perspective.** **C02: To understand the major trends in Modern Indian Literature.** **C03: To study the selected poems, short stories from Modern Indian Literature.** **C04: To understand the emerging trend in Modern Indian Literature.**
Sem.3 **DSC-1C** **British Literature (Novel & Play)**	**CO1: To study the British Literature and compare it with the Indian Literature.**
	C02: To analyse various Novels of British Literature. **C03: To study play of British Literature** **C04: To understand the impact on human life and society at large.**
Sem.3 **AECC-1 Creative Writing, Book and Media Reviews**	**CO1: To understand the importance of creative writing.**
	CO2: To analyse the importance of Book reviews in creative writing. **CO3: To understand the major role of Media Reviews in creative writing.** **C04: To assign the students exercises related to book and media reviews.**
Sem.4 **DSC-1D**	**CO1: To understand the literary cross currents.** **C02: To study the Living Literatures from Literary cross current perspective.**
Literary Cross Currents Selections from Living Literatures-An Anthology of Prose and Poetry Eds.Vinay Sood, et al. Orient Longman Novella Play	**CO3: To analyse the Anthology of prose.** **CO4: To analyse the Anthology of poetry through the writings of Vinay Sood.**
Sem.4 **AEEC-2: Translation Studies and Principles of Translation**	**CO1: To study the translation and the role of translation in understanding various literature.** **CO2: To analyse the principles of translation.** **CO3: To do exercises with the students to make them aware of the various techniques of translation.** **CO4: To do exercises with the students and make them understand the importance of translation.**
Semester 5 **AEEC-3: Technical Writing**	**CO1:To study the technical writing in English.** **CO2: To analyse technical writing with other writings.** **CO3: To understand various tools of technical writing.** **CO4: To understand the use of technical writings in English Literature.**
DSE-1A: Soft Skills	**CO1: To study soft skill in English writing.** **CO2: To understand the role of soft skill in defining various facts from literary perspective.** **CO3: To understand the role of soft skill in analysing various facts from literary perspective.** **CO4: To study soft skill in understanding the importance of soft skill.**
Sem.5 **GE-1: Gender and Human Rights/Contemporary India: Women and Empowerment**	**CO1: To study the concept of gender and understand it from theoretical perspective.** **CO2: To analyse the the concept of gender from human rights perspective.** **CO3: To understand contemporary India from gender and human rights perspective.** **CO4: To study women empowerment in contemporary India.**
Semester 6 **AEEC- 4: Business Communication**	**CO1: To study Business Communication.**

	CO2: To study its importance in building career in business sector. CO3: To understand the importance of business communication. CO4: To understand the application of Business Communication in professional life.
Sem.6 DSE-1B: Academic Writing	
	CO1: To understand academic writing. CO2: To study its role in enhancing writing skill. CO3: To distinguish academic writing from other writing skills. CO4: To analyse academic writing skill.
Sem.6 GE -2: Cultural Diversity Paper14	CO1: To study Cultural Diversity in India. CO2: To study its comparison with the rest of the world. CO3: To analyse cultural diversity. CO4: To understand its impact on literature.

Program Name: BA (Hons) HINDI

Hindi Bhasha aur Sahitya ka Vikash	CO1: To study the history of Hindi Bhasha and Sahitya. CO2: To study Ancient Hindi Kavita. CO3: To understand Ritikalin Hindi Kavita CO4: To study modern Hindi Kavita.
Hindi Gadya: Udbhav aur Vikash	CO1: To study Hindi Prose CO2: To study the writings of Premchand, Prasad, Mohan Rakesh and Mannu Bhandari CO3: To study the selected Literature of Balkrushna Bhatt, Acharya Ramchandra Shukla, Hazari Prasad Dwivedi and Vidyanivash Mishra. CO4: To study selected prose of Bhartendu Harishchandra, Mahadevi Verma, Harishankar Parshai
Hindi Bhasha aur Sahitya (Hindi B)	CO1: To understand Hindi bhasha and Sahitya CO2: To study Bhaktikalin Kavita CO3: To study Ritikalin Kavita CO4: To study Adhunik Kavita
Hindi Gadya ka Udbhav aur Vikash (Hindi B)	CO1: To study Hindi Gadya Rupon ka vikash aur samanya parichay CO2: To study Budhi Kaka (Premchand), Gunda (Prasad) and Usne kaha tha (Chandradhar Sharma Guleri) CO3: To study the selected writings of Balmukund Gupt, Bhartendu. CO4: To study the selected writings of Harishankar Parshai and Mahadevi Verma.
Hindi Bhasha aur Sahitya (Hindi C)	CO1: To study Hindi Bhasha and Sahitya ka Itihas CO2: To study Bhaktikalin Kavita CO3: To study Riti kalin Kavita CO4: To study modern kavita
Hindi Gadya ka Udbhav aur Vikash (Hindi C)	CO1: To study the origin and growth of Hindi Gadya CO2: To study the selected Gadya of Premchand and Bhishma Shahani. CO3: To study the selected Gadya of Balkrushna Bhatt, Sharad Joshi and Shivpujan Sahay. CO4: To study the selected Gadya of Mahadevi Verma, Bishnu Prabhakar and Vishwanath Tripathi
Hindi Bhasha aur Sampreshan (MIL Comm.)	CO1: To study the theory and forms of Bhashvik Sampreshan CO2: To study types of Sampreshan. CO3: To study the medium of Sampreshan CO4: To study the process of reading and understanding.
DSE: Hindi Bhasha ka vyavaharik Vyakaran	CO1: To study Bhasha and Vyakaran CO2: To understand the process of Sabd parichay CO3: To study Vyakaran Vyavahar CO4: To study Vakya Parichay.
DSE: Hindi ka Maukhik Sahitya aur Uski Parampara	CO1: To study Maukhik Sahitya ki Abhdharna CO2: To study Lok Geet CO3: To study Lok Kathayein and Lok Gathayein CO4: To study Lok Natyam
DSE: Hindi Rangmanch	CO1: To study Paramparik Rangmanch CO2: To study Hindi Rangmanch ki Vikash Yatra CO3: To study Adhunik Rangmanch CO4: To understand Pramukh Rang vyaktitwa aur Rang Drishti
Sahitya Chintan	CO1: To study Sahitya ka Swaroop CO2: To study Sahitya Rash CO3: To study Bhasha CO4: To study Chhand, Lay tatha Tuk
Kosh Vigyan: Savda Kosh aur Viswakosh	CO1: To study Kosh Parichay CO2: To study Koshnirman CO3: To study Kosh ke Prakar CO4: To study Pramukh Kosh ka Parichay
Vishesh Adhyayan: Ek Pramukh Sahityakar	CO1: To study Kavir CO2:To study Tulsi Das CO3: To study Premchand CO4: To study Nirala
G.E.: Anubad: Vyabahar aur Siddhant	CO1: To study different types of Bhasha CO2: To study Prayukti ki Avdharna CO3: To study Anuvad Vyavahar-1 CO4:To study Anuvad Vyavahar-2
G.E.: Janpadiya Sahitya	CO1: To study Janpadiya Sahitya ki Abhdharna CO2: To study Lok Geet CO3: To study Lok Kathayein and Lok Gathayein CO4: To study Loknatyam

Ashmita Mulak Adhyayan aur Hindi Sahitya	**CO1: To study different Vimarsh** **CO2: To study Vimarshmulak Katha Sahitya** **CO3: To study Vimarshmulak Kavita** **CO4: To study Vimarshmulak Gadya**
Hindi Cinema aur Uska Adhyayan	**CO1: To study Cinema and its theoritical perspective.** **CO2: To study the origin and development of Hindi Cinema** **CO3: To study the role of Camera in Cinema** **CO4: To study new twchnology and Cinema**
SEC: Rachnatmak Adhyayan	**CO1: To study Rachnatmak lekhan ki abhdharna, swaroop aur siddhant** **CO2: To study Rachnatmak Lekhan ki adhar aur Vishleshan** **CO3: To study Vividh visayon ki adharbhut sangrachanayon ka vyavaharik adhyayan** **CO4: To study suchna tantra ke liye lekhan**
SEC: Bhasha Sikhyan	**CO1: To study Bhasha Sikshan ki Avdharna** **CO2: To study Bhasha sikshan ki Adharbhut Sankalpanayein** **CO3: To study Hindi Sikshan** **CO4: To study Bhasha Sikshan aur Mulyankan**
SEC: Karyalayi Hindi	**CO1: To understand Karyalayi Hindi ka Swaroop, Uddeshya tatha kshetra** **CO2: To study Karyalayi Hindi ki Savdavali** **CO3: To study Karyalayi Patrachar ke Vividh Prakar** **CO4: To study Tippan, Parupan and Sankhyepan**
SEC: Bhashayi Dakhyata	**CO1: To study Bhashayi Dakhyata ka Vikash** **CO2: To study Bhashayi dakhyata ki nirman prakriya** **CO3: To study Bhashayi Dakhyata ke Prayagik paksh** **CO4: To study Bhashayi dakhyata ka vyavaharik paksh**
SEC: Vigyapan aur Hindi bhasha	**CO1: To study Vigyapan ke swaroop aur abhdharna** **CO2: To study Vividh madhyam of Vigyapan** **CO3: To study Vigyapan ki bhasha** **CO4: To study Vigyapan Nirman ka abhyash**
SEC: Computer aur Hindi Bhasha	**CO1: To study computer ka vikash aur Hindi** **CO2: To study Hindi bhasha aur pradyogiki** **CO3: To study Hindi bhasha, Computer aur governance** **CO4: To study Hindi bhasha aur computer ke vividh paksh**
Hindi bhasha aur Sahitya ka Itihaas	**CO1: To study Adikal** **CO2: To study bhaktikal** **CO3: To study Ritikal** **CO4: To study Adhunik kal**
Hindi kavita: Madhya kal aur Adhunik kal	**CO1: To study Kavir granthavali** **CO2: To study kavyasangraha** **CO3: To study chhand** **CO4: To study the selected poetry of Harivamsh rai bachchan, Nagarjun and Bhabani rai Mishra**
Hindi katha Sahitya	**CO1: To study the swaroop and sangrachana of Hindi sahitya** **CO2: To study Hindi Upanyash** **CO3: To study Hindi Sahitya ka swaroop and sangrachana** **CO4: To study Kahani**
Anya gadya vishay	**CO1: To study the purpose of literature** **CO2: To study Bhaktim and Adamya jeevan** **CO3: To study Vaishnavjan and Shayed** **CO4: To study Ukhde khambe and Lakkha bua**

Program Name: Linguistics

Introduction to Language	**CO1: To scientific study of language and its structure and to scientific study of grammar, syntax, and phonetics.** **CO2: To study Specific branches of linguistics.** **CO3: To study socio linguistics, dialectology, psycholinguistics.** **CO4: To study computational linguistics, comparative linguistics, and structural linguistics**
Elementary Phonetics and Phonology	**CO1: To be able to haveClassification of sounds:** **CO2: To understand place and manner of articulation, major classes: vowels, consonants,** **CO3: To analyse Concept of distinctive features, Phoneme and allophones- contrast and complementary distribution** **CO4: To understand Cardinal vowels, Phonetic transcription (IPA).**
Morphosyntactic Processes	**CO1: To understand: Word classes: Parts of speech;** **CO2: To understand nouns and verbs, determiners, adjectives, pronouns,** **CO3: Toanalyseprepositions/postpositions, conjunctions, adverbs, interjections; open and closed classes; content words and function words.** **CO4: To analyse Processes of word formation; structure of word, segmentation and analysis; wordand its parts; compounds; affixes; zero derivation; reduplication.**
Language, Mind and Brain	**CO1: To understand Language as a biological behavior; notion of language faculty; production, perception** **CO2: To analyse thecomprehension of language** **CO3: To understand Brain and language, cerebral dominance and lateralization, Aphasia and dyslexia..** **CO4: To understandAcquisition of language,**
Language, Society and Language change	**CO1: To understand Language, culture and society: Speech-communities; language and culture; language, dialectand idiolect;** **CO2: To be able to analyse sociolinguistic variation; bi/multilingualism; scheduled and non-scheduledlanguages of India.** **CO3: To understand Language classification and change: The genealogical, typological** **CO4: To analyse areal system ofclassification of languages; language families of India.**
Linguistic Tradition and Historical Linguistics	**CO1: To understandIndian grammatical tradition; Yask, Panini, Bhartrhari and Tholkappiyar;** **CO2: To analyse Western encounterwith Sanskrit and its impact.** **CO3: To understand Language families of India, India as a linguistic area.** **CO4: To analyse Historical linguistics, language change and types,**

Issues in Applied Linguistics- I	**CO1: To understand Principles of translation; types of translation;** **CO2: To analyse interpretation and transcreation; problems of translation** **CO3: To understand Language use in print media** **CO4: To analyse; language in advertising; language in TV and cinema; politicaldiscourse; language and empowerment**
Issues in Applied Linguistics- II	**CO1: To understand Learning theories and language teaching; notions of mother tongue (M.T.) and other tongue** **CO2: To analyse(O.T.); second and foreign language teaching; methods of language teaching; syllabus designand language testing.** **CO3: To understand Structure and function of lexeme, types of dictionaries; dictionary making: collection, selection** **CO4: To understand organization of materials; problems in dictionary making.**
Language Interfaces	**CO1: To understand Language as biological behaviour, brain and language;** **CO2: To understand language faculty and languageacquisition, motherese** **CO3: To understand ; normal and pathological language.** **CO4: To understand Computational linguistics and Natural language processing;**
Understanding Human Language	**CO1: To understand Language and its nature as a system; spoken and written forms; speech production.** **CO2: To have Knowledge about the sound patterns of language and its application in context: accents, dialects** **CO3: To understand other types of patterned variation in language; language, identity and ethnicity, gender based and stylistic variations** **CO4: To analyse Structure of words and sentences; regularities and linguistic data;**
Understanding Hindi as a Foreign Language	**CO1: To understandLearners and teachers and the teaching and learning context; specific features of Hindi.** **CO2: To analyseProcesses of reading, writing, understanding and speaking Hindi** **CO3: To understand; Hindi spoken in differentareas; Hindi in media and cinema.** **CO4: To understand Hindi and the global India; conversational skills;**
Understanding Concepts of Translation	**CO1: To understand Nature and scope of translation:** **CO2: To learn different theories of translation, use of linguistics in tranalation** **CO3: To understand Principles of translation;** **CO4: To learn role of the translator; types of translation.**
Understanding Concepts of Language Acquisition and Intervention	**CO1: To understand Introduction to language acquisition** **CO2: To analyse ; linguistic environment and language acquisition.** **CO3: To understand Motivation and language acquisition; cross linguistic influences on language acquisition;** **CO4: To understand theoretical models of language acquisition;**

Program Name: History

History of India from Earliest Times up to 300 CE(Core)	**CO1: To comprehend the Sources for interpreting Indian History.** **CO2: To compare Palaeolithic, Mesolithic and Neolithic Cultures.** **CO3: To list the major development and inventions of Prehistoric time.** **CO4: To comprehend the Origin, Extent, characteristics & decline of the Harappan Civilization;**
History of India from. C.300 to1206 (Core)	**CO1: To study the Rise & Growth of the Guptas: Administration, Society, Economy, Religion, Art, Literature, and Science & Technology.** **CO2: To analyse Harsha & His reign: Harsha's Kingdom, Administration, Buddhism & Nalanda** **CO3: o understand South India: Polity, Society, and Economy & Culture** **CO4: To study towards the Early Medieval: Changes in Society, Polity Economy and Culture with special reference to the Pallavas, Chalukayas and Vardhanas.**
History of India from 1206 to 1707 (Core)	**CO1: o comprehend Foundation, Expansion & consolidation of the Delhi Sultanate, an insights into Nobility & Iqta system.** **CO2: o analyse miltary, administrative & economic reforms under the Khiljis & the Tughlaqs.** **CO3: o study the Bhakti & Sufi Movements and their philosophies.** **CO4: To analyst and reason the emegence of Provincial kingdoms: Mewar, Bengal, Vijaynagara & Bahamanis**
History of India; 1707-1950	**CO1: To comprehend the Interpretation of the 18th Century Indian history.** **CO2: To reason the factors responsible for the emergence of Independent States & establishment of Colonial power.** **CO3: To locate the expansion & discuss the causes that led to the consolidation of Colonial Power upto 1857.** **CO4: To study the factors responsible for the uprising of 1857: Causes, Nature & Aftermath.**
Patterns of Colonialism in the World: 15th to 19th Century (DSE)	**CO1: To define Colonalism and the idea behind colonalism.** **CO2: To reason the establishment of Colonial Empires by Spain and Portugal in 15th-16th centuries.** **CO3: To comprehend the role of French in Canada: 1534-1763.** **CO4: To analyst the role of British in India in 18th century.**
National Liberation Movements in 20th century World (DSE)	**CO1: To understand Nationalism: Theory and Practice.** **CO2: To analyse the nature of Imperialism and colonialism** **CO3: To comprehend the factors of the National Movements in Nigeria, Kenya, Congo, Angola & South Africa.** **CO4: To study the role of China between 1911-1949: Revolution of 1911, May Fourth.**
Some Aspects of European History: C.1780-1939(DSE)	**CO1: To understand the factors responsible for the French Revolution: its genesis, nature & consequences** **CO2: To comprehend Napoleon, the Napoleonic era and aftermath.** **CO3: To Reason the factord for the Revolutions of 1830 & 1848.** **CO4: To understand and analyst the reasons that led to the unification of Italy & Germany.**
Patterns of Capitalism in Europe: C.16th Century to early 20th Century(DSE)	**CO1: To understand the definitions & Concepts of Capitalism and Commercial Capitalism: 1500-1700.** **CO2: To study the growth of Industrial Revolution in England: Causes & Nature.** **CO3: To analyse and comprehend the Industrial Capitalism in France: Genesis & Nature.** **CO4: To comprehend the factors that led to the Growth of Industries in Germany.**
Society &Economy of Modern Europe: 15th – 18th Century (DSE)	**CO1: To understand the Historiographical trends of Society and economy of modern Europe.** **CO2: To understand the Feudal Crisis: Main strands.** **CO3: To study the Renaissance: Origin, Spread & Dominant Features** **CO4: To analyse the European Reformation: Genesis, nature & Impact.**

Political History of Modern Europe: 15TH -18 Century (DSE)	**CO1: To Comprehend Europe in the 15th century: Political dimensions of feudal crisis.** **CO2: To understand the history from City States to the emergence of Absolutist States: Case Studies of Italy, Spain, France, England and Russia.** **CO3: To study and reason the Constitutional Conflict in 17th century England: Causes, nature and results.** **CO4: To study factors responsible for the Thirty Year War: Causes, nature and Impact**
Women Studies in India (G.E.)	**CO1: To understand gender, its basic Concepts & Theories.** **CO2: To define the Gender and understand the concept of Patriarchy: Ideology & Practice.** **CO3: To distinguish the Relationship between Gender, Caste, Class, Religion & Politics.** **CO4: To reason the factors for the Emergence of Women Studies in India.**
Women in Politics & Governance (G.E.)	**CO1: To study the theoretical Perspectives on Politics &Governance.** **CO2: To understand the Pre-Colonial Period: Women of learning &ruling classes.** **CO3: To study the Colonial Period: Leaders in reforming activities, politics and national movement.** **CO4: To understand the Electoral Politics, Women as voters & elected Representatives.**
Some Perspectives on Women's Rights in India (G.E.)	**CO1: To study the Definition of Human Rights: UN Conventions &Indian Context.** **CO2: To understand the Indian Constitution &Women's Rights** **CO3: To analyse the Preventive Acts: Minimum Wage Act,1948, Family Courts** **CO4: To study the Act, 1986, Dowry Prohibition Act,1961,Immoral Traffic Prevention**
Gender and Education in India (G.E.)	**CO1: To study the Historiographical Trends.** **CO2: To understand Education in Early and medieval times; Formal & Informal** **CO3: To study the history of Colonial Period: Socio-religious reform women & education for females.** **CO4: To analyse the Role of School and Colleges in Colonial and Post Colonial Period.**
History of Indian Journalism: Colonial &Post Colonial Period (G.E.)	**CO1: To understand the Pre-colonial History of written records &modalities of dissemination.** **CO2: To study the Advent of Print media : Imperialist Ideologies.** **CO3: To understand Nationalism & Print Culture: Selective study of prominent.** **CO4: To study the newspapers: Tribune, Amrita Bazar Patrika, and Hindustan Times.**
Cultures in the Indian Subcontinent (G.E.)	**CO1: To study the Definitions of Culture and its various aspects.** **CO2: To understand the Languages and Literature** **CO3: To study the Art and Architecture and the meaning, form and foundation of Architecture.** **CO4: To demonstrate the Perceptions of visual Past and Present**
1) Historical Tourism: Theory & Practice (AEEC)	**CO1: To understand the defining Heritage, Art &Architecture in India: An overview.** **CO2: To study the process of Field Work: Visit to historical sites &Museums** **CO3: To Understanding Built Heritage: Stupa Architecture and Temple Architecture.** **CO4: To study Indo Persian Architecture, Forts, Palaces, Mosques.**
Museums & Archives in India (AEEC)	**CO1: To understand the Definitions and History of setting up of Museums and Archives.** **CO2: It undertake some case studies of Archives and Museums.** **CO3: To do Field Work; Studying of structures & Functions** **CO4: To study Training &Employment programmes.**
Indian History &Culture (AEEC)	**CO1: To study Environment; Culture, Tradition &Practices: Historical overview.** **CO2: To understand the Oral &codified information on medicinal Plants, Water & Water Bodies** **CO3: To do Fieldwork on the issues of Urbanization &Urbanism:** **CO4: To understand the Issues of settlements & Landscapes and Social differentiations.**
Ethnographic Practices in India: Tradition of Embroidery, Textile making, Knitting, Handicrafts (AEEC)	**CO1: To study the History: Evidences and writings; Early India, Medieval period, Colonial and Post Colonial.** **CO2: To understand the Contemporary Practices: - North, West, East, and South.** **CO3: To conduct Field work: Practioners & issues of sustenance.** **CO4: To study the Codification of Information and the relationship between market & conservation.**
An Introduction to Archaeology (AEEC)	**CO1: To study the Definition & Components.** **.CO2: To understand the Historiographical Trends and Research Methodologies.** **CO3: To study the Definition of Historical Sites &Explorations.** **CO4: To conduct Field Work & Tools of research.**
Documentation &Visual Culture (AEEC)	**CO1: To understand the Conceptual Framework.** **CO2: To study Visual Culture: Colonial & Post Colonial Contexts.** **CO3: To understand Politics of Documentation and methods of Documentation: Photographs, Films, Videos and digital.** **CO4: To do Fieldwork, Internship and Training.**
Orality and Oral Culture in India (AEEC)	**CO1: To understand the defining orality and History, Historiography of Orality.** **CO2: To study Life Histories: Sociological Aspects** **CO3: To understand Research Methodologies.** **CO4: To do Documentation: Written &Visual.**
	Program Name: Mathematics
Calculus	**CO1: To study the Limit and Continuity, Types of discontinuities.** **CO2: To understand Differentiability of functions.** **CO3: To study Successive differentiation, Leibnitz.s theorem, Partial differentiation, Euler's theorem on homogeneous functions.** **CO4: To analyse Tangents and normals, Curvature, Asymptotes, Singular points, Tracing of curves.**

Algebra	**CO1: To understand the Definition and examples of a vector space, Subspace and its properties, Linear independence and dependence of vectors, basis and dimension of a vector space.** **CO2: To study the types of matrices. Rank of a matrix. Invariance of rank under elementary transformations.** **CO3: To study reduction to normal form, Solutions .of linear homogeneous and non-homogeneous equations with number of equations and unknowns upto four.** **CO4: To understand Cayley-Hamilton theorem, Characteristic roots and vectors.**
Analytic Geometry and Applied Algebra	**CO1: To study the Techniques for sketching parabola, ellipse and hyperbola.** **CO2: To understand the Reflection properties of parabola, ellipse and hyperbola and their applications to signals, classification of quadratic equation representing lines, parabola, ellipse and hyperbola.** **CO3: To study Rectangular coordinates in 3-space; spheres, cylindrical surfaces cones. Vectors viewed geometrically, vectors in coordinate system, vectors determine by length and angle, dot product, cross product and their geometrical properties.** **CO4: To understand Parametric equations of lines in plane, planes in 3-space.**
Analysis	**CO1: To study Order completeness of Real numbers, open and closed sets, limit point of sets, Bolzano Weierstrass Theorem, properties of continuous functions, Uniform continuity.** **CO2: To do analytical study for Sequences, convergent and Cauchy sequences, sub-sequences.** **CO3: To understand the limit superior and limit inferior of a sequence, monotonically increasing and decreasing sequences.** **CO4: To examine infinite series and their convergences, positive term series, comparison tests.**
DSE-1 **Paper V Differential Equations**	**CO1: To study ordinary differential equations.** **CO2: To understand First order exact differential equations including rules for finding integrating factors, first order higher degree equations solvable for x, y, p, Wronskian. and its properties.** **CO3: To examine Linear homogeneous equations with constant coefficients, Linear non-homogeneous equations.** **CO4: To understand the method of variation of parameters. Euler's equations. Simultaneous differential equations.**
DSE-1 **Paper V Discrete Mathematics**	**CO1: To study the definition, examples and properties of posets, maps between posets, Algebraic lattice, lattice as a poset, duality principal, sublattice ,Hasse diagram.** **CO2: To understand the products and homomorphisms of lattices, Distributive lattice, complemented lattice.** **CO3: To study the Boolean Algebra, Boolean polynomial, CN form, DN form.** **CO4: To examine simplification of Boolean polynomials, Karnaugh diagram. Switching Circuits and its applications.**
DSE-2 **Paper-6** **Numerical Analysis**	**CO1: To study significant digits, Error, Order of a method, Convergence and terminal conditions.** **CO2: To understand efficient computations Bisection method, Secant method, RegulaFalsi method, Newton, Raphson method, Newton's method for solving nonlinear systems.** **CO3: To examine Gauss elimination method (with row pivoting) and Gauss.** **CO4: To study Jordan method, Gauss Thomas method for tridiagonal systems Iterative methods: Jacobi and Gauss-Seidel iterative methods**
DSE-2 **Paper-6** **Statistics**	**CO1: To study Probability Classical, relative frequency and axiomatic approaches to probability.** **CO2: To understand Theorems of total and compound probability. Conditional probability, independent events, Bayes Theorem. Random Variables.** **CO3: To examine Discrete and continuous random variables, Distribution function, Expectation of a random variable, Moments, moment generating functions.** **CO4: To examine discrete and continuous distribution, Bionomial, Poisson, geometric.**
SEC-1 **Latex and HTML** **(Practical)**	**CO1: To do Practical Test.** **CO2: In this particular paper practical will be done to have primary knowledge related to Latex.** **CO3: In this paper practical will be done to have primary knowledge related to HTML.**
SEC-2 **Computer Algebra Systems and Related Softwares** **(2L+ 2Practical per week)**	**CO1: To study the Use of Mathematica, Maple, and Maxima as calculator, in computing functions, in making graphs; MATLAB/Octave for exploring linear algebra and to plot curve and surfaces.** **CO2: To understand the statistical software R: R as a calculator, explore data and relations, testing hypotheses, generate table values and simulate data, plotting.** **CO3: Practical should be done by each student. The teacher can assign practical from the exercises from [1].**
SEC-3 **Operating System: Linux** **(2L+ 2Practical per week)**	**CO1: To study the Operating System: Linux history, Linux features, Linux distributions, Linux's relationship to Unix.** **CO2: To understand overview of Linux architecture, Installation, Start up scripts, system processes (an overview), Linux Security.** **CO3: To examine the Ext2 and Ext3 File systems: General Characteristics of, The Ext3 File system, file permissions.** **CO4: To study User Management: Types of users, the powers of Root, managing users (adding and deleting): using the command line and GUI tools.**
SEC-3 **Operating System: Linux** **(2L+ 2Practical per week)**	**CO1: To study the Operating System: Linux history, Linux features, Linux distributions, Linux's relationship to Unix.** **CO2: To understand overview of Linux architecture, Installation, Start up scripts, system processes (an overview).** **CO3: To study Linux Security, The Ext2 and Ext3 File systems: General Characteristics of, The Ext3 File system, file permissions.** **CO4: To analyse User Management: Types of users, the powers of Root, managing users (adding and deleting): using the command line and GUI tools.**
SEC-4 **Transportation and Game Theory** **(2L+ 1 Tutorial per week)**	**CO1: To study Transportation problem and its mathematical formulation, northwest-corner method least cost method and Vogel approximation method for determination of starting basic solution.**

	CO2: To understand algorithm for solving transportation problem, assignment problem and its mathematical formulation. **CO3: To examine Hungarian method for solving assignment problem. Game theory: formulation of two person zero sum games.** **CO4: To understand solving two person zero sum games, games with mixed strategies, graphical solution procedure.**

Program Name: Political Science

Introduction to Political Theory (Core)	**CO1: To understand certain key aspects of conceptual analysis in political theory** **CO2:To study the skills required to engage in debates surrounding the application of the concepts** **CO3:To study political ideologies, issues, rights, political institutions and processes, state and different forms of government** **CO4: To understand the importance of political theory which make students think rationally and inculcate among them the political values**
Indian Government and Politics (Core)	**CO1: To study Indian Politics and the nature of Indian States from various ideological perspective.** **CO2: To analyse various political institutions and processes in India.** **CO3: To study the party system and the electoral processes and reform in India** **CO4: To understand the stucture of federalism, different dynamics of it and the role of local self government.**
Comparative Government and Politics (Core)	**CO1: To study the nature, scope and methods of comparative politics.** **CO2: To study various political processes and institutions in comparative perspective.** **CO3: To analyse the contemporary debates on the nature of state.** **CO4: To understand the importance of interdisciplinary study in comparative politics which helps bringing efficiency in the inter-governmental activities.**
Introduction to International Relations (Core)	**CO1: To provide theoretical approaches to understand International politics.** **CO2: To study the history of International relations from 1945 till present.** **CO3: To study the evolution of India's foreign policy since independence.** **CO4: To analyse the the role of international organisations in resolving conflict**
DSE-Sem.5 **Themes in Comparative Political Theory**	**CO1: The objective of the course is to familiarise students with the need to recognise how conceptual resources in political theory draw from plural traditions.** **CO2: To explores the Indian and Western traditions of political theory through some select themes.** **CO3: To study the overall objective which enable students to appreciate the value and distinctiveness of comparative political theory** **CO4: To understand the current conjexture in comparative political theory.**
DSE- Sem.5 **Administration and Public Policy: Concepts and Theories**	**CO1: To understand various theories of Public administration.** **CO2:To distinguish between the old and new public administration.** **CO3:To study the public policy and the role of public policy in bringing good governance in India.** **CO4: To study the importance of e-governance in bringing efficiency, transparency and accountability in administration.**
DSE-Sem.6 **Democracy and Governance**	**CO1:To study democracy and types of democracy that enhances governance system.** **CO2:To understand various types of governance system that brings development.** **CO3: To understand various models of development and its impact on governance.** **CO4: To study the emerging issues and challenges to democracy and governance.**
DSE-Sem.6 **Understanding Globalisation**	**CO1: To understand globalisation and its impact on state.** **CO2: To analyse three views of globalisation.** **CO3:To study the impact of globalisation on politics, economy, society and culture of the Indian State.** **CO4: To study emerging debate on globalisation and localisation.**
SEC.Legislative Support(Sem.3)	**CO1: To acquaint the student broadly with the legislative process in India at various levels.** **CO2: To introduce the requirements of peoples' representatives.** **CO3: To provide elementary skills to be part of a legislative support team.** **CO4: To make the students gain through practical experiences by organising the study tour and develop their skill by assigning exercises.**
SEC.Public Opinion and Survey Research (Sem.4)	**CO1: To study and introduce the students to the debates, principles and practices of public opinion polling in the context of democracies, with special reference to India.** **CO2: The study will familiarise the students with how to conceptualize and measure public opinion using quantitative methods** **CO3: The study gives particular attention to developing basic skills pertaining to the collection, analysis and utilisation of quantitative data.** **CO4: To study study the impact of openion poll and exit poll in electoral outcome.**
SEC.Democratic Awareness Through Legal Literacy (Sem.5)	**CO1: To study and acquaint students with the structure and manner of functioning of the legal system in India.** **CO2: To make the students aware of the Legal system.** **CO3:To make the students understand their rights and duties and how to use their rights under the legal framework.** **CO4: To understand the legal aspects and suggest required reforms in the course of time.**
SEC.Sem.6 **Conflict and Peace Building**	**CO1: The study attempts to help build an understanding of a variety of conflict situations among students in a way that they can relate to them through their lived experiences.** **CO2: To make interdisciplinary study which draws its insights from various branches of social sciences.** **CO3: The study seeks to provide a lively learning environment for teaching and training students how to bring about political and social transformations at the local, national and international levels.** **CO4: To study the conflict resolution techniques such as role-play, simulations, street theatre, cinema and music and make the students develop their skill through field study.**
Generic Elective, Sem.6 **Human Rights, Gender and Environment**	**CO1: To equip the students with theoretical and conceptual understanding.** **CO2: To study socio – economic and political problems of marginalized groups in society such as women, dalits, minorities and adivasis and repercussions of contemporary developments on globalization on them.** **CO3: To study the Conceptual dimensions, international trends and the Indian experience.** **CO4: The study assesses the institutional and policy measures which have been taken in response to the demands of various movements.**

Program Name: Sanskrit

Sanskrit Poetry	**CO1: To understand scientific contours of poetry** **CO2: To understand the evolution of the poetry** **CO3: To analyse other developments through the ages.** **CO4: To develop a comprehensive understanding of practice of poetry use.**
Sanskrit Prose	**CO1: To acquaint the students with the Classical Sanskrit Prose literature** **CO2: To famous prose texts of modern era, namely Śivarājavijayam** **CO3: To make students to get acquainted with the beginnings of modern Sanskrit literature** **CO4: To understand also to help students negotiate the text independently withthe help of Proficiency of Sanskrit.**
Sanskrit Drama	**CO1: To acquaint the students with two most famous dramas of Sanskrit literature** **CO2: To reflect poetic excellence** **CO3: To depict contemporary society and highlight human values.**
Sanskrit Grammar	**CO1: To get students to learn the basics of Sanskrit grammar** **CO2: To understand through Laghusiddhāntakaumudī based Sa j–ā, Sandhi and Vibhakti prakara a.** **CO3: To acquaint Students will be able to learn the application of Pāṇini's sūtras.**
Sanskrit as MIL: A1 Sanskrit Literature	**CO1: To get the students acquainted with the outline of Sanskrit literature.** **CO2: To understand Hitopadeśa: First Two Stories from Mitralābha** **CO3: To understand Cāṇakyanīti** **CO4: To make students learnHistory of Sanskrit Prose and Nītikāvaya**
Sanskrit as MIL B1 - Upanishad and Gita	**CO1: To get students to know about the principle thesis of theUpaniad and the Gītā.** **CO2: To understand Gita philosophy of karma** **CO3: To understandGeneral Introduction to Upanisadic Philosophy:**
Sanskrit as MIL C1 – Nīti Literature	**CO1: To get the students acquainted with the outline of Sanskrit Nītiliterature** **CO2: To understand texts Pa–catantram and Nītiśatakam with the General Introduction toSanskrit Literature.**
Sanskrit as MIL A2 – Grammar and Translation	**CO1: To get the students to know the basics of Sanskrit Grammar** **CO2: To understand, including rules of Sa j–ā, Sandhi, Samāsa and Vibhaktyarth Prakarna** **CO3: To understand that it isbased onLaghusiddhāntakaumudī, a primer of Pāṇinian grammar.** **CO4: To make them understand to translate sentence and write short paras in Sanskrit.**
Sanskrit as MIL B2 - Grammar and Composition	**CO1: To get the students to know the basics of Sanskrit Grammar** **CO2: To understand rules of Sandhi, Samāsa and Kt pratyaya based on Laghusiddhāntakaumudī, a primerof Pāṇinian grammar.** **CO3: To understand the techniques of theParagraph Writing and Translation.**
Philosophy, Religion and Culture in Sanskrit	**CO1: To introduce Philosophy, Religion and Culture in Sanskrit tradition** **CO2: To understand religion and philosophy** **CO3: To understand culture in particular context**
Indian Perspectives in personality development	**CO1: To understand that Indian philosophical tradition advocates an integrated approach to human personality** **CO2: To understand where material and psychological growth complement each other.** **CO3: To see that This course seeks to introduce some theoretical concepts and practical techniques for development of the human person.**
Literary Criticism	**CO1: To make students learn thatThis Literary Criticism course aims to get the students to know about the aims, essentialresources,** **CO2: To understand thedefinition and principle types of poetry on the basis of Mammat'sKāvyaprakāśa**
Nationalism in Sanskrit Literature	**CO1: To see that the aim of this course is to make the students acquainted with the concept and historical development of Indian Nationalism** **CO2: To understandwith special reference to Sanskrit literature of past and present.** **CO3: To make students learn that The course tries to highlight the struggle of Indian people against colonialism in nineteenth century by focusing on the nationalistic ideologies of prominent national leaders of modern times.** **CO4: To highlight that The course also emphasizes the relevance of Gandhian thought as propounded in modern Sanskrit literature.**
Mathematical Tradition in Sanskrit	**CO1: To make students learn thatThe objective of this course is to introduce the Indian mathematical tradition to thestudents.** **CO2: To sharpen the knowledge in this context**
Political Thought in Sanskrit	**CO1: To understand Fundamental Concepts of Indian Political thought have been discussed in Dharma-śāstraliterature as the scientific branches of knowledge in ancient India.** **CO2: To see thatThe aim of this courseis to make the students acquainted with various aspects of Indian Political Thought** **CO3: To understand institutions of Polity as propounded in the ancient Sanskrit texts such as Vedic Samhitas, Mahabharata puranas kautilya arthashashtra and other works**
Sanskrit Media	**CO1: To make students learn This course aims to familiarize the students with the journey of Sanskrit literature inthe modern Information Technology world.** **CO2: To seethat Students will get the brief informationregarding Sanskrit Media.**
Sanskrit Meter and Music	**CO1: The objectives of this course to learn Sanskrit meter for analysis.** **CO2: To study the lyrical techniques.** **CO3: Students will get the complete information regarding selected Vedic.** **CO4: To study Classical meter with lyrical techniques.**
Nationalistic Thought in Sanskrit Literature	**CO1: To learn Basic Fundamental concepts of Indian Nationalism that have been developed and highlighted under the Sanskritic term 'Rā ra' in Ancient times.** **CO2: To highlight that. The aim of this course is to make the students acquainted with the concepts and historical development of Indian Nationalism** **CO3: To understand with special reference to Sanskrit literature of past and present.**
Ethical and Moral Issues in Sanskrit	**CO1: To learn that This course aims to get the students familiar with the Ethical and Moral Values in SanskritLiterature** **CO2: To highlight the importance of moral values in life** **CO3: To see that the foundations of ethical and moral features carries a great deal of significance in solving many problems**

Basics of Sanskrit Linguistics	**CO1: To understand that This course will introduce the basic fundamental of linguistics based on SanskritLanguage.** **CO2: To make students understand conceptsof Linguistics for further studies.**
Basic Elements of Jyotisha	**CO1: To understand that The objective of this course to introduce basic elements of the Jyotia to the students.** **CO2: To learn that The course covers Origin, Development and Branches of Jyotia and reading of theJyotiachandrikā.**
Basic Elements of Āyurveda	**CO1: To familiarise students with basic concepts of ayurveda** **CO2: To see thatĀyurveda is a traditional Indian system of healthcare that has been traced back as early as 5,000 BCE.** **CO3: To be able to understand Through the classroom lectures and discussions, this course will introduce students to the theory of Āyurveda** **CO4: To learn that. The theory modules sessions that make up this course offer an introduction to Āyurveda that is well rounded, comprehensive and useful for students in their own day-to-day living**
E-Learning Tools and Techniques forsanskrit	**CO1: To understand thatThis course has been designed for those students who need to have some basic groundingin e-learning/online learning.** **CO2: To make students learn basics of onlinelearning and then will go on to provide a hands-on experience of popular softwareapplications and tools to students.**
Indian Architecture System	**CO1: To understand Vāstu śāstra is an ancient science of architecture and construction** **CO2: To highlight that . The aims of Vāstuvidyācourse to get the students to know about the principals of design, layout, measurement, ground preparation and space arrangement etc.**
Computer Awareness for Sanskrit	**CO1: To understand that this course has been designed for those students who need to have some basic grounding in computer applications.** **CO2: To introduce that the course will begin with introducing computer.** **CO3: To study fundamentals and then will go on to provide a hands-on experience of popular software applications and tools to students.**
Yogasutra of Patanjali	**CO1: To highlight that this Yoga Darśana course aims to get the students to know about the world's most important texts and the vision of our ancient Yoga's tradition.** **CO2: To learn that for this, selected Sutras of Patanjali's Yogasūrta has been prescribed.**
Indian Theatre	**CO1: To highlight that theObjective of this course is to introduce Principles and practices of Indian Theatre tostudents** **CO2: To make students understand the trajectory of Indian theatre** **CO3: To understand the particular contexts** **CO4: To understand the principles in these various contexts** **CO3: Translation from Hindi/English to Sanskrit on the basis of cases, Compounds and k it suffixes.** **CO4: Essay based on issues and topic related to modern subjects like entertainment, sports, national and international affairs and social problems.**