Payyanur College, Payyanur
Affiliated to Kannur University
Programme Outcomes

1. Critical Thinking:

1.1. Acquire the ability to apply the basic tenets of logic and science to thoughts, actions and interventions.

1.2. Develop the ability to chart out a progressive direction for actions and interventions by learning to recognize the presence of hegemonic ideology within certain dominant notions.

1.3 Develop self-critical abilities and also the ability to view positions, problems and social issues from plural perspectives.

2. Effective Citizenship:

2.1. Learn to participate in nation building by adhering to the principles of sovereignty of the nation, socialism, secularism, democracy and the values that guide a republic.

2.2. Develop and practice gender sensitive attitudes, environmental awareness, empathetic social awareness about various kinds of marginalisation and the ability to understand and resist various kinds of discriminations.

2.3. Internalise certain highlights of the nation's and region's history. Especially of the freedom movement, the renaissance within native societies and the project of modernisation of the post-colonial society.

3. Effective Communication:

3.1. Acquire the ability to speak, write, read and listen clearly in person and through electronic media in both English and in one Modern Indian Language

3.2. Learn to articulate, analyse, synthesise, and evaluate ideas and situations in a well-informed manner.

3.3. Generate hypotheses and articulate assent or dissent by employing both reason and creative thinking.

4. Interdisciplinarity:

4.1. Perceive knowledge as an organic, comprehensive, interrelated and integrated faculty of the human mind.

4.2. Understand the issues of environmental contexts and sustainable development as a basic interdisciplinary concern of all disciplines.

4.3. Develop aesthetic, social, humanistic and artistic sensibilities for problem solving and evolving a comprehensive perspective.

BSc CHEMISTRY PROGRAMME

Programme Specific Outcomes (PSOs)

PSO 1 Understand the fundamental concepts, principles and processes underlying the academic field of chemistry, its different subfields (analytical, inorganic, organic and physical), and its linkages with related disciplinary areas/subjects;

PSO 2 Demonstrate procedural knowledge that creates different types of professionals in the field of chemistry and related fields such as pharmaceuticals, chemical industry, teaching, research, environmental monitoring, product quality, consumer goods industry, food products, cosmetics industry, etc.;

PSO 3 Employ critical thinking and the scientific method to design, carry out, record and analyze the results of chemical experiments and get an awareness of the impact of chemistry on the environment and the society.

PSO 4 Use chemical techniques relevant to academia and industry, generic skills and global competencies, including knowledge and skills that enable students to undertake further studies in the field of chemistry or a related field, and work in the chemical and non-chemical industry
sectors.

PSO5 Undertake hands on lab work and practical activities which develop problem solving abilities required for successful career in pharmaceuticals, chemical industry, teaching, research, environmental monitoring, product quality, consumer goods industry, food products, cosmetics industry, etc.

PSO 6 Understand safety of chemicals, transfer and measurement of chemical, preparation of solutions, and find out the green route for chemical reaction for sustainable development.

PSO 7 Create an awareness of the impact of chemistry on the environment, society, and development outside the scientific community.

Course Outcomes (COs)

1B01CHE : THEORETICAL AND INORGANIC CHEMISTRY

CO1: Correlate the structure and behavior of atom

CO2: Differentiate the various chemical interactions in molecules through bonding concepts

CO3: Analyze and interpret the gradation in the properties of elements in the periodic table

CO4: Predict the nuclear transmutations

CO5: identify the role of radioactive materials in different applications

2B03CHE : ANALYTICAL AND INORGANIC CHEMISTRY – I

CO 1: Determine the error, standard deviation and relative standard deviation of analytical data.

CO 2: Understand statistical treatment of analytical data and the principles underlying volumetric titrations.

CO 3: Understand basic principles behind selective precipitation of cation.

CO 4: Summarize the characteristics of s- and p- block elements

CO 5: Compare the various concepts of acids and bases

3B04CHE/PCH : ORGANIC CHEMISTRY – I

CO 1: Explain the types of electron displacement in organic moleculesand predict the propertiesof molecules based on electron displacement effect

CO 2: Distinguish aromatic, anti-aromatic and nonaromatic compounds and ions and analyse the mechanistic details of aromatic electrophilic substitution

CO 3: Classify stereo isomers, understand the property of chirality, apply CIP rules to recognize the configuration and explain the stabilityof conformations drawing energy profile diagram

CO 4: Explain the mechanism of polymerization, synthesis and application of industrially important Polymers

CO 5: Explain the classification and the methods of preparation of important dyes

CO 6: Illustrate the preparative methods and synthetic applications of important synthetic Reagents

4B06CHE/PCH : ORGANIC CHEMISTRY – II

CO :1) Describe mechanisms for substitution and elimination reactions, and predict the effect of nucleophile, leaving group, and solvent on the relative rates of SN1 versus SN2 reactions, and E1 versus E2 reactions, as well as on the relative rates of substitution versus elimination.

CO: 2) Explain Chugaev and Cope eliminations and E1CB mechanism

CO : 3) Illustrate the preparative methods and important properties of Hydrocarbons, halogen compounds, Hydroxy compounds and Carbonyl Compounds

CO: 4) Explain the mechanism of important name reactions including rearrangements involving hydroxyl and Carbonyl functional groups

5B07CHE/PCH : ANALYTICAL AND INORGANIC CHEMISTRY-II

CO: 1 Understand the qualitative and quantitative aspects of analysis and separation techniques

CO: 2 Explain instrumentation and working principle of different analytical techniques – TGA,

DTA and radio chemical method of analysis.

CO: 3 Familiarize with the preparation, properties and uses of some inorganic compounds like

hydrides of boron, sulphur and silicon based inorganic polymers and understand their importance

CO :4Explain the classification of refractories.

CO :5Knowthe position, electronic configuration and physical properties of noble gases and explain hybridization and geometry of different xenon compounds

CO :6Explain various steps involved in metallurgical operations and power metallurgy and understand Corrosion, theories of Corrosion and factors affecting Corrosion

5B08 CHE/PCH : INORGANIC CHEMISTRY

CO:1) Understand the behavior of transition and inner transition elements and explain the separation of lanthanides by ion exchange method andlanthanide contraction

CO: 2) Understand key features of co-ordination compounds and illustrate the theories of coordination complexes, stability of complexes and explain factors affecting crystal field splitting.

CO: 3) Explain biological functions of metal ions.

CO: 4) Familiarize new elements in periodic table and Understand recent developments in inorganic chemistry.

5B09 CHE/PCH : PHYSICAL CHEMISTRY I

CO1) Recognize and relate the properties of ideal and real gases
CO2) Describe the properties of liquids.
CO3) Identify and distinguish the types of solutions
CO4) Explain colligative properties of dilute solution and determine the molecular weight of a solute
CO 5) Identifydifferent crystallographic systems and various types of crystal defects
CO 6) Describe X ray diffraction to explain internal structure of solids

5B10 CHE/PCH : PHYSICAL CHEMISTRY II

CO 1) Identify the fundamental concepts of thermodynamics
CO2) Relate and Interpret the various laws of thermodynamics
CO3) Understand the concept of entropy and how the whole universe is related to it.
CO 4) Construct phase diagrams and study the equilibrium exists between various states of matter.and apply principles phase diagram to separation processes and for property modification of different type of system.
CO 5) Understand basic principles of surface chemistry and its application in various fields
CO 6) Correlate the types of colloids with its properties and to explore the applications in day today life.

6B14CHE/PCH : ORGANIC CHEMISTRY – III

CO1 Acquaint with the classification, structures and properties of carbohydrates, explain the configuration of glucose and fructose, their inter conversion, illustrate Killiani-Fischer synthesis and Ruff degradation
CO2 Illustrate the preparative methods and the properties of different classes of organic acids,
nitrogen containing compounds and heterocyclic compounds.
CO3Classify amino acids and peptides and explain the synthesisof simple peptides by *N*protection (t-butyloxycarbonyl and phthaloyl) &C-activating groups and Merrifield solidphase synthesis. Explain the methods of determination of primary structure of peptides
CO4 Distinguish the components of nucleic acids and lipids and their roles in biological system and the biological importance of various natural products. Familiarise with important drugs and their therapeutic applications
CO 5Recognisethe types and characteristics of pericyclic reaction and analyse the pericyclic reactions by FMO methods. Understand the photochemistry of carbonyl compounds
CO 6Understand the principles of Green Chemistry and the importance of green synthesis and
recognize the impact of green chemistry on human health and the environment

6B15CHE/PCH: PHYSICAL CHEMISTRY – III

CO 1) Understand the mechanism of electrical conductance, theories of electrical conductance,
and coductometric titrations
CO 2) Understand the basic principle of ionic equilibrium and its application in laboratories
CO 3) Design different types of electro chemical cell and able to calculate its potential.
CO 4) Familiarise with electro analytical methods
CO 5) Acquaint with kinetics of simple,complex, enzymatic and surface reactions
CO6) Understand basic principles of photochemistry and its application in spectrophotometry

6B16CHE/PCH: PHYSICAL METHODS IN CHEMISTRY

CO 1 i) Explain the important principles of spectroscopy

ii) Apply spectroscopic techniques in analyzing the structure of simple organic molecules

CO 2 Acquainting the working principles of various instruments and their functions

CO 3 Understand the basic principles of symmetry and group theory and its applications in chemistry

CO 4 Study the basic principles of nanochemistry and understand the various nanofabrication methods

CO 5 Explain the important principles for quantum chemical and molecular mechanic methods

of computing the geometry and energy of molecules

6B17CHE/PCH- A: ENVIRONMENTAL CHEMISTRY

CO1 Know the importance of environmental studies and methods of conservation of natural resources.

CO2 Describe the structure and function of an ecosystem and explain the values and Conservation of bio-diversity.

CO3 Explain the sources, environmental effects and control measures of various types of pollutions.

CO 4: Identify the toxic chemicals in environment and understand the sources, effects and treatmentof heavy metal poisoning

CO5: Understand the methods of domestic water treatment, Sewage analysis and Sewage Treatment

6B17CHE/PCH- B: APPLIED CHEMISTRY

CO-1Explain the origin of coal,coal products ,petroleum products and their applications.

CO-2 Explain the manufacture of fertilizers, pesticides and their applications

CO-3 Understand the manufacture of glasses, cement, ceramics and the formulations of paints

and varnishes

CO-4 Familiarize with the chemistry of fats and oils and explain the production of soaps and detergents.

CO-5 Understand the chemistry of food additives and explain the manufacture and refining of pulp.

CO-6 Understand importance of industrial safety and industrial pollution control.

6B17CHE/PCH- C: POLYMER CHEMISTRY

CO 1) Classify polymers and explain the configuration of polymers and properties like glass transition temperature and melting point of polymers

CO2) Illustrate the preparation, properties and applications of polymers

CO3) Interpret the mechanism of polymerization

CO4) Acquaint various polymer processing technologies and explain thermal methods of analysis of polymers

CO5) Know the recent advances in polymer chemistry

6B17CHE/PCH – D: NANOCHEMISTRY

CO 1: Understand the basic concepts and classification of nanomaterials.

CO 2: Analyze different nano systems and their properties.

CO 3: Understand the various techniques adopted for the synthesis and characterization of nanomaterials.
CO4 : Characterize the nanomaterials using various microscopic techniques.
CO 5: Understand the application of nanomaterials in various fields including catalysis, photonics, and medicine

1B02CHE/PCH& 2B02CHE/PCH: CORE COURSE PRACTICAL I

CO 1) Apply the theoretical concepts while performing experiments.
CO2) Acquire practical skill to estimate acid, base, oxidizing agents etc by volumetric titration
method
CO3) Estimate the metallic ions by complexometric titration method
CO4) Acknowledge experimental errors and their possible sources.
CO5) Able to prepare inorganic complexes
CO 6) Design, carry out, record and analyze the results of chemical experiments

3B05CHE/PCH& 4B05CHE/PCH: Inorganic Qualitative Analysis

CO 1) Apply the theoretical concepts while performing experiments.
CO2) Acquire practical skill to analyse the anions and cations qualitatively present in a mixture
of inorganic salts
CO 3) Able to design, carry out, record and analyze the results of chemical experiments
CO 4) Learns the effective usage of chemicals

5B11 CHE /PCH & 6B11 CHE/PCH : GRAVIMETRIC ANALYSIS

CO1: Make use of standardised procedures for the Gravimetric analysis
CO2: learn the skills of Precipitation process, digestion, filtration, incineration etc.
CO3:Aquire practical Knowledge of co-precipitation
CO4: Handle sintered glass vessels
CO5) Acknowledge experimental errors and their possible sources.
CO6Able to design, carry out, record and analyze the results of chemical experiments

5B12 CHE/PCH& 6B12 CHE/PCH : ORGANIC CHEMISTRY

CO 1) Apply the theoretical concepts while performing experiments.
CO2) Acquire practical skill in qualitative analysis of organic compounds
CO 3) Acquire practical skill in preparing organic compounds and in their purification by crystallisation
CO4) Separate organic compounds in a mixture –by steam distillation, TLC and Column Chromatography
CO5) Acquire the habit of working safely with the chemicals and handling of equipments

6B18CHE/PCH `PHYSICAL CHEMISTRY

CO 1) Acquire practical skill in physical chemistry experiments such as Cryoscopy, Transition
Experiments, Phase Rule Experiments, Conductometric titrations, Potentiometric titrations, colorimetry and Chemical Kinetics
CO2) Learn statistical approach for evaluating data
CO3) Able to carry out and record these experiments in a skilful manner
CO4) Acquire the habit of working safely with the chemicals and handling of equipments

PROJECT CO 1) Able to enhance the skills of managing the resources, time and team work.
CO 2) Students will be able to function as a member of an interdisciplinary problem solving team.

5D01CHE/PCH: CHEMISTRY IN SERVICE TO MAN

CO1) i) Understandthe classification, structure, function and applications of polymers
ii) Understand the importance of biodegradable polymers
CO2) Acquaint with different types of fertilizers and pesticides and understand the effect of fertilizers and pesticides on the environment
CO 3) Explain the classification of fuels and composition of petroleum and familiarise the fuel
cells and batteries and Understand their applications in modern life
CO 4) Explain different types of glasses, their applications and the composition of Portland cement
CO5) Identify the harmful chemicals present in cosmetics and understand their effects in human Body

5D02CHE/PCH: DRUGS - USE & ABUSE

CO 1) Familiarise the classes of drugs and their examples
CO 2) Distinguish prescription drugs and over the counter drugs
CO 3) Understand the roots of administration of drugs and their importance
CO 4) Familiarise various synthetic drugs and their uses
CO 5) Understand the consequences of misuse of antibiotic
CO 6) Recognise the drugs of abuse and understand the consequences of drug abuse

5D03CHE/PCH: Environmental Studies

CO 1) Differentiate the environmental segments and understand the importance of environmental
segments
CO 2) Identify the types of environmental pollution and the various sources of the pollution
CO 3) Understand the consequences of environmental pollutions
CO 4) Explain the measures of control of environmental pollution
CO 5) Recognise various sustainable energy sources

5D04CHE/PCH: NANOMATERIALS

CO 1) Understand the basic concepts of nanoscale science and technology.
CO2) Inculcate the enquiry based learning and increase the level of interest in nanoscience.
CO3) Understand the societal implications and the scope of nanotechnology.

5D05CHE/PCH: CHEMISTRY IN EVERYDAY LIFE

CO 1) Identify the harmful ingredients and their effects of cleansing agent and cosmetics
CO 2) Familiarise adulterants in food, food additives and food preservatives
CO 3) Explain the harmful effects of modern food habits
CO 4) Classify the drugs and familiarize the applications of various drugs
CO 5) Understand the consequences of misuse of antibiotics
CO 6) Prepare toilet soap using vegetable oil

1C01CHE/PCH: Chemistry for Physical & Biological Sciences

CO1) Understand the atomic structure, basics of quantum chemistry and its applications.
CO2) Explain theories of chemical bonding and molecular structure.

CO3) Classify environmental pollution and recognise the causes of pollution
CO4) Understand the basic concept of Chemical equilibrium and theories of acids and bases
CO 5) Calculate pH values
CO 6) Explain common ion effect and solubility product

2C02CHE/PCH: Chemistry for Physical & Biological Sciences

CO 1) Understand the basic concept of classification, IUPAC nomenclature, bonding and structure of Organic compounds
CO2) Explain the concept of aromaticity and non-benzenoid aromatics
CO3) Understand the basic concepts of chemical equilibrium. Explain colloids, their properties
and applications
CO4) Illustrate the laws of photochemistry and Explain the photochemical phenomena such as
Photosensitization, quenching, Fluorescence, Phosphorescence, Chemi luminescence and bioluminescence.
CO5) Familiarise different types of analytical methods in chemistry and explain the principle of colorimetry
CO 6) Explain the principles underlying the qualitative and quantitative analysis

3C03CHE/PCH(PS): Chemistry for Physical Science

CO1) Understand the basic principle underlying various spectroscopy
CO2) Understand the basic concepts of thermodynamics and laws of thermodynamics
CO3) Explain the formation, nomenclatureand applications of coordination complexes, Illustrate the valance bond theory of coordination complexes and explain the factors affecting the stability of complexes
CO4) Understand the basic concepts of chemical kinetics and Calculate the value of Ea from the values of k at two temperatures. Illustrate the types of Catalysis and understand the Characteristics of catalytic reactions
CO 5) Understand the basic concept of nuclear chemistry, and explain the detection of isotopes
using Aston's mass spectrograph and separation of isotopes by diffusion methods
CO6) Explain the principle and applications of different types of Chromatography

4C04CHE/PCH(PS): Chemistry for physical science

CO1) Understand the basic concept in gaseous state Explain the deviation of real gases from ideal behaviorand Maxwell distribution of velocitiesand its use in calculating molecularvelocities. Distinguish average velocity, RMS velocity and most probable velocity
CO 2) Understand the basic concepts of internal structure of Crystals (crystallography) and explain X-ray analysis of crystals
CO3) Understand the basic concepts in liquid state and solutions. Illustrate Henry's law and explain its applications. Identify collegative properties and apply colligative properties to determine molecular mass
CO4) Distinguish Specific conductance – molar conductance and equivalent conductance and explain laws of electrolysis, conductometric titrations and its applications
CO5) Explain electrochemical cell, electrode potential, types of electrodes, EMF
Nernst equation and potentiometric titration

CO6) Acquaint with various instrumental methods in chemistry and Understand basic concepts of Nanochemistry

3C03CHE/PCH: Chemistry for Biological Sciences

CO1) i) Understand the basic concept of Coordination Chemistry, nomenclature, Werner's coordination theory and Valance bond theory of coordination complexes

ii) Write the name of Coordination compounds

iii) Explain Werner's coordination theory and Valance bond theory of coordination complexes

iv) Explain the application of coordination complexes

CO2) i) Understand the electron displacement effects in organic molecules

ii) Explain the mechanism of nucleophilic substitutions and eliminations in alkyl halides

iii)Explain the mechanism of aromatic electrophilic substitution reactions

CO3) i) Classify the isomerism in organic molecules

ii) Distinguish the geometrical isomers and explain their stability

iii) Explain the characteristics of chiral compound

iv) Explain the conformational isomers in alkanes and cycloalkanes

CO 4) i) Explain the important types of polymerization, thermoplastics and thermosetting plastics

ii) Understand the characteristics of biodegradable plastics

CO 5) Understand the basic concept of thermodynamics and laws of thermodynamics

CO6) i) Understand the basic concept of chemical kinetics

ii)Calculate Ea from the values of k at two temperatures

iii) Explain homogeneous catalysis, heterogeneous catalysis and Characteristics of catalysis reactions

4C04CHE /PCH: Chemistry for Biological Sciences

CO1) Illustrate the preparatory methods of glucose and fructose and explain their configurations

Familiarize the structure and properties of sucrose and poly sachrides

CO2) Know the structure of important five membered and six membered heterocyclic

Compounds and explain their reactivity and important reactions. Explain the preparation and properties of Quinoline and iso quinoline

CO 3) Understand the structure and functions of neuclic acids, Classify amino acidsand explain

the structure of protein and its importance

CO4) Understand the mechanism of enzyme action, enzyme catalysis

CO5) Know the structure of Vitamin A, B and C. and hormones progesterone, Testosterone, cortisone, adrenaline and Thyroxin

CO6) Understand the importance of metal ions in biological systems and Mechanism of O2 and

CO2 transportation – Nitrogen Fixation Na-K pump

4C05 CHE/PCH- COMPLEMENTARY ELECTIVE - CHEMISTRY PRACTICAL

CO 1) Apply the theoretical concepts while performing experiments.

CO2) Acquire practical skill to estimate acid, base, oxidizing agents etc by volumetric titration

method
CO3) Acknowledge experimental errors and their possible sources.
CO 4) Design, carry out, record and analyze the results of chemical experiments
CO5) Acquire practical skill to analyse the anions and cations qualitatively present in a mixture
of inorganic salts
CO 6) Learns the effective usage of chemicals

BSc PHYSICS PROGRAMME

Programme Specific Outcomes

PSO1: Understand and apply the principles of Classical mechanics, Quantum mechanics, Thermodynamics, Nuclear physics and Electrodynamics
PSO 2: Understand and apply the principles of Solid state physics, Optics, Photonics and Spectroscopy
PSO 3: Understand the principles of Electronics, Design and test electronic circuits
PSO 4: Understand and apply the principles of Mathematical Physics and Computational Physics and do Error analysis in measurements.

Course Outcomes

CORE COURSE I: MECHANICS I

CO1: Understand Newton's laws of motion, the concepts of linear and angular momentum and torque
CO2: Determine the Centre mass of a given configuration
CO3: Understand the principle of work, energy and power
CO4: Determine angular momentum of a body about any given axis

CORE COURSE II:MATHEMATICALPHYSICS AND ERROR ANALYSIS

CO 1: Understand vector operations and vector algebra
CO2: Determine derivative and integral of various functions
CO3: State fundamental theorems of calculus
CO4: Compare differential operators in various coordinate systems
CO5: Understand the basic concepts of modeling
CO6: Solve first order and second order ODEs
CO7: Estimate uncertainties in measured values

CORE COURSE II:MATHEMATICALPHYSICS AND ERROR ANALYSIS

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CO7: Estimate uncertainties in measured values

CORE COURSE III: MECHANICS II

CO1: Understand the concept of Galilean transformations and uniformly accelerating systems

CO2: Determine the trajectory of a body in central force problem using Newton's laws
CO3: Understand Kepler's laws of planetary motion
CO4: Formulate the mathematical equation of waves
CO5: Understand the concept and consequences of special theory of relativity

CORE COURSE IV: ELECTRONICS I

CO 1: Understand the basics of PN junction diode, Zener diode and their applications
CO2: Understand the structure, operations and characteristics of BJT and FET
CO3 :Understand the biasing methods and design of BJT and FET circuits
CO4: Understand the different number systems, conversions and binary arithmetic operations
CO5 : Understand the basic combinational logic gates
CO6 : Understand the Boolean algebra &logic simplification using Boolean Algebra

CORE COURSE V: - GENERAL PHYSICS PRACTICAL I

CO1: Familiarize with apparatus for mechanical, electrical, magnetic and optical experiments.
CO2: Develop skill in setting up of apparatus for accurate measurement of physical quantities.
CO3: Understand multiple experimental techniques for determining physical quantities.
CO4: Develop skill in systematic way of measurements by minimizing possible errors.
CO5: Develop skill to analyze by plotting graphs using software.
CO6: Develop skill for systematic trouble shooting.

CORE COURSE VI: QUANTUM MECHANICS

CO 1: Understand the limitations of classical mechanics
CO2: Explain Blackbody radiation problem, Photoelectric effect and Compton Effect using quantum theory of radiation
CO3: Understand Rutherford,Bohr atom models and concept of energy and angular momentum quantisation
CO4: Understand de-Broglie hypothesis,concept of wave nature of matter and Heisenberg uncertainty principle
CO5: Determine probability of finding a particle and expectation values of variable using its wave function
CO6: Write and solve Schrodinger equation for simple quantum mechanical systems
CO7: State and explain Pauli's exclusion principle

CORE COURSE VII: ELECTROSTATICS AND MAGNETOSTATICS

CO1: Understand the concept of Electric field, electric potential, magnetic field and magnetic potentials
CO2: Use the principle of superposition and law of Gauss to calculate electric field Intensity
CO3: Determine Electric potential of charge distributions and hence specify electric field intensity
CO4: Understand the basic properties of conductors and capacitors
CO5: Calculate the magnetic fields due to currents using Biot-Savart and Ampere laws.
CO6: Compare Magnetostatics and Electrostatics.

CO7: Understand Diamagnets, Paramagnets and Ferro magnets.

CORE COURSE VIII: THERMODYNAMICS AND STATISTICAL MECHANICS

CO 1: Understand the concept of temperature ,the thermodynamic state and equilibrium.

CO2: Explain the first law of thermodynamics through work and heat and its Mathematical Formulation.

CO3: Understand the ideal gas equation and kinetic theory of gases

CO4: Understand the second law of thermodynamics and thermodynamic temperature scale.

CO5: Define entropy and thermodynamic potentials

CO6: Understand the basic concepts of Statistical mechanics

CORE COURSE IX: ELECTRONICS II

CO 1: Understand the AC analysis of BJT circuits and CE amplifiers

CO2:Understand the feedback circuits, oscillators and power amplifiers

CO3:Understand OPAMP basics and different OPAMP circuits

CO4:Understand the standard forms Boolean Expressions, Functions of Combinational Logic and K map simplifications.

CORE COURSE X: SOLID STATE PHYSICS & SPECTROSCOPY

CO 1: Understand basic crystal structure and compare various crystal systems

CO2: State and prove Bragg's law

CO3: Explain X-ray diffraction and various methods to obtain diffraction pattern

CO4: Understand basic properties of semiconductors and band structure of solids

CO5: Discuss Hall Effect and list its applications

CO6: Describe various regions of EM spectrum

CO7: Distinguish between microwave and infrared spectroscopy

CO8: Define Raman Effect and explain its quantum theory

CORE COURSE XI :OPTICS &PHOTONICS

CO 1: Understand the concept of interference and diffraction

CO2: Distinguish between Fresnel and Fraunhoffer diffraction

CO3: Analyse mathematically diffraction pattern due to slits and apertures

CO4: Understand the concept of polarization and double refraction

CO5: Understand the basic principle and working of lasers

CO6: Explain different types of lasers

CO7:Understand the principle of holography and its applications CO8:Understand the principle of total internal reflection and propagation of light through optical fibres

CO9:Compare different types of optical fibres and their applications Optics and Photonics

CORE COURSE XII: 6B12 PHY NUCLEAR, PARTICLE & ASTROPHYSICS

CO 1: Understand the structure nucleus and nuclear constituents

CO2: Define nuclear forces and nuclear reactions

CO3: Familiarize elementary particles and their properties

CO4: Understand stellar classifications

CO5: Understand basic concepts of birth of the star

CO6: Identify different stars in HR diagram

CO7: Understand the theory of death of the star

CO8: Define white dwarf, neutron star and black hole

CORE COURSE XIII :ELECTRODYNAMICS AND CIRCUIT THEORY

CO 1 : Understand the basic concepts of Electrodynamics

CO2 : Explain the mathematical theoryof Electromagnetic waves

CO3 : Understand different Network theorems

CO4 : Understand the basic concepts of Transient currents

CORE COURSE XIV: DISCIPLINE SPECIFIC ELECTIVE PYTHON PROGRAMMING

CO 1: Develop skills in creating program sketches of scientific problems

CO2: Develop basic skills in logical thinking and programming

CO3: To make real-life scientific problems easier on a computer with user interaction and graphics

CORE COURSE XV: Practical II General Physics II

CO1 : Familiarise with apparatus for mechanical, electrical, magnetic and optical experiments.

CO2: Develop skill in setting up of apparatus for accurate measurement of physical quantities.

CO3: Understand multiple experimental techniques for determining physical quantities.

CO4: Develop skill in systematic way of measurements by minimising possible errors.

CO5: Develop skill to analyse by plotting graphs using software.

CO6: Develop skill for systematic trouble shooting.

CO7: Perform error analysis for experiments.

CORE COURSE XVI: PRACTICAL III ELECTRONICS

CO1: Familiarise active and passive electronic components.

CO2: Familiarise multimeter, power supply, signal generator and cathode ray oscilloscope.

CO3: Develop skill in soldering and use of breadboard.

CO4: Develop skill in construction of rectifiers, voltage regulators, amplifiers and oscillators.

CO5: Observe, measure and analyse electrical signals.

CO6: Develop skill for trouble shooting circuits and components.

CO7: Develop skill to analyse by plotting graphs using software.

GENERIC ELECTIVE COURSES. 5 D 04 PHY:JOY OF STAR WATCHING

CO 1: Understand Our Universe and its origin

CO2:Understand simple constellations

CO3:Explain the stars in Kerala culture

CO4:Understand the techniques of star watching

BSc MATHEMATICS PROGRAMME

Programme Specific Outcomes

PSO 1: Understand the basic concepts and tools of Mathematical logic, Set theory, Number theory, Geometry, Calculus, Algebra, Abstract structures, Linear Algebra, Analysis, Laplace transforms, Fourier series, Graph theory, and Optimization and methods of proofs.

PSO 2: Model real world problems into Mathematical problems and find solutions and understand the application of Mathematics in other Sciences and Engineering.

Course Outcomes

1B01 MAT: Set Theory, Differential Calculus and Numerical Methods

CO1 Understand Relations and Functions

CO2 Understand limit of a function, limit laws, continuity, Inverse functions and their derivatives

CO3 Understand successive differentiation and Leibnitz theorem

CO4 Understand functions of several variables, limit and continuity, partial derivatives, chain rule, homogenous functions and Euler's theorem on homogenous functions

CO5 Understand bisection method, Regula-falsi method and NewtonRaphson method to solve algebraic and transcendental equations

2B02 MAT: Integral Calculus and Logic

CO1 Understand Hyperbolic functions

CO2 Understand Reduction formulae for trigonometric functions and evaluation of definite integrals

CO3 Understand Polar coordinates

CO4 Understand Double integrals in Cartesian and polar form.

CO5 Understand triple integrals in rectangular, cylindrical and spherical co-ordinates

CO6 Understand Substitution in multiple integrals

CO7 Understand Numerical integration: Trapezoidal rule, Simpson's 1/3rd rule

CO8 Understand Logic and methods of proofs

CO9 Understand Propositional functions, truth set and Negation of quantified statements

3B03MAT: Analytic Geometry and Applications of Derivatives

CO1 Understand cartesian equation of conics, eccentricity, polar equations for a conic, lines, circles CO2 Understand Tangnts, Normals and Asymptotes

CO3 Understand Curvature, Radius of curvature ,Centre of Curvature, Circle of curvature and Evolutes of Cartesian and polar curves

CO 4 Understand Rolle's Theorem, Lagrange's Mean Value Theorem, Cauchy's Mean Value Theorem and Taylors Theorem

CO5 Understand extreme values of functions, monotonic functions, first derivative test , concavity and curve sketching CO6 Understand Indeterminate forms.

4B04 MAT: Number Theory and Applications of Integrals

CO1 Understand Division algorithm, Greatest common Divisor, Euclidean Algorithm, Diophantine equation ax+by =c.

CO2 Understand Primes and their distribution, fundamental theorem of arithmetic, the sieve of Eratosthenes

CO3 Understand Basic properties of congruence

CO4 Understand Picard's little theorem, Wilson's theorem and Euler's theorem

CO5 Understand Substitution and the area between curves, Arc length, Areas and length in polar co-ordinates

CO6 Understand Volumes using cross sections, volumes using cylindrical shells and areas of surfaces of revolution

5B05 MAT: Set Theory, Theory of Equations and Complex Numbers

CO1 Understand finite and infinite sets, Countable and Uncountable sets, Cantor's theorem.

CO2 Understand Roots of equations, Relations connecting the roots and coefficients of an equation, Transformation of equations, The cubic equation, Character and position of roots of an equation. CO3 Understand Descarte's rule of signs, De Gua's Rule, Limits to the roots of an equation, Rational roots of equations, Newton's method of divisors, Symmetric functions of roots of an equation, Symmetric functions involving only the difference of the roots of $f(x)=0$, Equations whose roots are symmetric functions of α,β,γ.

CO4 Understand Reciprocal equations.

CO5 Understand Cubic equation, Equation whose roots are the squares of the difference of the roots, Character of the Roots, Cardan's Solution

CO6 Understand Roots of complex numbers, General form of De Moivre's theorem, the nth roots of unity, the nth roots of -1, Factors of x^n -1 and x^n +1, the imaginary cube roots of unity.

CO7 Understand polar form of complex numbers, powers and roots.

5B06 MAT: Real Analysis I

CO1 Understand Algebraic Properties, Order Properties and Absolute values of $\mathbb{R}$. Understand the Completeness Property of $\mathbb{R}$ and its applications to derive Archimedean Property and Density theorem.

CO2 Understand intervals in the real line.

CO3 Understand Sequences and their Limits, Limit Theorems, Monotone Sequences.

CO4 Understand Subsequences and the Bolzano-Weierstrass Theorem, The Cauchy Criterion.

CO5 Understand Infinite Series, Absolute Convergence.

CO6 Understand Comparison test, Root test, Ratio test, Integral test and Raabe's test for Absolute convergence.

CO7 Understand Alternating series test, Dirichlet's test and Abel's test for Non Absolute convergence.

CO8 Understand Continuous Functions, composition of continuous functions and continuous functions on intervals.

5B07 MAT: Abstract Algebra

CO1 Understand definition and elementary properties of Groups, Subgroups and Cyclic groups CO2 Understand Groups of Permutations, orbits, Alternating groups and theorem of Lagrange

CO3 Understand group homomorphisms , factor Groups

CO4 Understand Fundamental Homomorphism Theorems

CO5 Understand definition and properties of rings and fields

CO6 Understand Ring homomorphisms and isomorphisms

CO7 Understand zero divisors , integral domains , characteristic of a ring and their properties

5B08 MAT: Differential Equations and Laplace Transforms

CO1 Understand Separable ODEs, Exact ODEs, Linear ODEs, Bernoulli equation and methods to solve these ODEs

CO2 Understand the theorem of Existence and Uniqueness of solutions of first and second order ODEs

CO3 Understand Homogeneous Linear ODEs of Second Order and solve homogeneous linear ODEs of second order with constant coefficients and Euler-Cauchy equation
CO5 Understand Laplace Transform and inverse Laplace Transformation
CO6 Understand The first and The second shifting theorems and their applications
CO7 Understand the methods to find Laplace transforms of derivatives and integrals of functions CO8 Understand the method of differentiating and integrating Laplace transform
CO9 Solve ordinary differential equations and integral equations using Laplace transform
5B09 MAT: Vector Calculus
CO1 Understand lines and planes in space
CO2 Understand curves in space, their tangents, normal, curvature, tangential and normal curvature of acceleration
CO3 Understand Directional derivatives and gradient vectors, tangent planes and differentials. Solve extreme value problems using Lagrange multipliers
CO4 Understand Partial derivatives with constrained variables and Taylor's formula for two variables
CO5 Understand Line integrals. Solve for work, circulation and flux using line integrals
CO6 Understand path independence conservative fields and potential functions
CO7 Understand Green's theorem and solve problems using Green's theorem
CO8 Understand Surface area and surface integrals
CO9 Understand Stoke's theorem and solve problems using Stoke's theorem
CO10 Understand Divergence theorem and solve problems using Divergence theorem
6B10 MAT: Real Analysis II
CO1 Understand Uniform Continuity, Monotone and Inverse Functions
CO2 Understand Riemann Integral and Riemann-integrable Functions
CO3 Understand Fundamental Theorem of Calculus
CO4 Understand Improper Integrals
CO5 Understand Beta and Gamma Functions and their properties.
CO6 Understand Transformations of Gamma Function and Duplication formula
CO7 Understand Pointwise and Uniform Convergence of sequence of functions and Interchange of Limits
CO8 Understand Series of Functions
CO9 Understand the concept of Metric Spaces
6B11 MAT: Complex Analysis
CO1 Understand Analytic Function, Cauchy–Riemann Equations. Laplace's Equation.
CO2 Understand Exponential Function, Trigonometric Functions, Hyperbolic Functions, Logarithmic functions and General Power of complex numbers
CO3 Understand line integral in the complex plane ,Cauchy's integral theorem , Cauchy's integral formula and derivatives of analytic functions
CO4 Understand convergence of Sequences and Series of complex functions
CO5 Understand power series, functions given by power series, Taylor series, Maclaurin's Series and Laurent Series
CO6 Understand singularities and zeros of complex functions
CO7 Understand residue integration method and integrate real integrals
6B12 MAT: Numerical Methods, Fourier series and Partial Differential Equations

CO1 Understand Interpolation techniques: Interpolation with unevenly spaced points, Langrange interpolation, Newton's divided differences interpolation, Finite difference operators and finite differences, Newton's interpolation formulae and Central difference interpolation.
CO2 Understand Numerical differentiation using difference formulae
CO3 Understand Picard's method, Solution by Taylor series method, Euler method and Runge- Kutta methods.
CO4 Understand Fourier Series: Arbitrary period, Even and Odd Functions, Half-Range Expansions and Fourier Integrals.
CO5 Understand Partial Differential eqations, Solution by Separating Variables.
CO6 Understand the use of Fourier Series in solving PDE: D'Alembert's Solution of the Wave Equation. Characteristics and solving Heat Equation by Fourier Series.
CO7 Understand Laplacian in Polar Coordinates
6B13 MAT: Linear Algebra
CO1 Understand the concept of Vector spaces, subspaces, linear combinations ad system of equations.
CO2 Understand the concept of Linear Dependence and Linear Independence, Bases and Dimension, Maximal Linearly Independent Subsets and solves problems.
CO3 Understand the concept of Linear Transformations, Null Spaces, and Ranges, The Matrix Representation of a Linear Transformation.
CO4 Understand Rank of a matrix, Elementary transformations of a matrix, Invariance of rank through elementary transformations, Normal form, Elementary matrices.
CO5 Understand the concept System of linear homogeneous equations Null space and nullity of matrix, Range of a matrix, Systems of linear non homogeneous equations.
6B14A MAT: Graph Theory
CO1 Understand a graph, subgraph ,different types of graphs and their properties
CO2 Understand and represent graph as matrix
CO3 Understand a path, cycle, trees, bridges and their properties
CO4 Understand cut vertices and connectivity of graphs
CO5 Understand Eulerian graphs, Hamiltonian graphs, The Chinese Postman Problem and The Travelling Salesman Problem.
CO6 Understand planar graphs, Euler's formula, The Platonic bodies and Kuratowski's Theorem CO7 Model real world problems using the concept of graphs
CO8 Solve real world problems using the concept of graphs
6B14B MAT: Operations Research
CO1 Understand convex sets, convex functions, their properties, local and global extrema and quadratic forms
CO2 Understand LPP, formulate and solve using graphical method
CO3 Understand General LPP, canonical and standard forms of LPP
CO4 Understand simplex method and solve LPP
CO5 Understand basic solution, degenerate solution, basic feasible solution, optimum basic feasible solution , fundamental properties of solution and simplex method
CO6 Understand primal-dual pair, formulation of dual and duality theorems
CO7 Understand LP formulation of transportation problem and its solution

CO8 Understand Mathematical formulation of Assignment problem and Hungarian Assignment method
CO9 Understand problem of sequencing , Processing ‘n’ jobs through ‘2’ machines, Processing ‘n’ jobs through ‘k’ machines
CO10 Understand basic terms in Game theory, The Maximin-Minimax Principle, Solution of game with saddle point, Solution of 2x2 game without saddle point, Graphic solution of 2xn and mx2 games and Arithmetic method for nxn Games
6B14C MAT: Cryptography
CO1 Understand Simple Cryptosystems namely, The Shift Cipher, The Substitution Cipher, The Affine Cipher, The Vigenere Cipher, The Hill Cipher, The Permutation Cipher and Stream Ciphers CO2 Understand basics of Shannon’s Theory, Elementary Probability Theory, Perfect Secrecy, Entropy, Huffman Encodings and Entropy, Properties of Entropy, Spurious Keys and unicity Distance, Product Cryptosystems.
CO3 Understand The Euclidean Algorithm, The Chinese Remainder Theorem
CO4 Understand Legendre and Jacobi Symbols and quadratic residues CO5 Understand The RSA System and Factoring (25 Hours): Introduction to Public-key Cryptography, The RSA Cryptosystem, Implementing RSA, Primality Testing, The Solovay-Strassen Algorithm, The Miller Rabin Algorithm, Square roots modulo n.

6B14D MAT: Fuzzy Mathematics
CO1 Understand Fuzzy Subsets, L-fuzzy Sets, Visual representation of a Fuzzy Subset, Operations on Fuzzy Subsets, Empty Fuzzy Subset 0
CO2 Understand Universal Fuzzy Subset, Disjoint Fuzzy Subsets, Disjunctive Sum
CO3 Understand α Level Set, Properties of Fuzzy Subsets of a Set, Algebraic Product and Sum of Two Fuzzy Subsets, Properties Satisfied by Addition and Product
CO4 Understand Cartesian Product of Fuzzy Subsets
CO5 Understand Fuzzy Relations, Binary Fuzzy Relations, Binary Relations on a Single Set, Fuzzy Equivalence Relations CO6 Understand Fuzzy Subgroup, Fuzzy Subgroupoids
CO7 Understand The Lattice of Fuzzy Subgroups, Fuzzy Subgroup,
Fuzzy Subrings

STATISTICS

OPEN COURSE 5 D 01 STA SAMPLING TECHNIQUES

CO1: understand different types of data.
CO2: understand the concept the census and sampling.
CO3: apply different sampling methods.
CO4: familiarize with the various statistical organizations.

COMPLEMENTARY COURSES FOR BSc MATHEMATICS

1C01 STA BASIC STATISTICS

CO1: understand the different types of data.
CO2: compute various measures of central tendency, measures of variation.
CO3: analyse the relationship between two variables.
CO4: acquire knowledge in time series data and compute various index numbers.

2C02 STA PROBABILITY THEORY AND RANDOM VARIABLES

CO 1: evaluate the probability of events.

CO 2: understand the concept of random variables with examples in real life

CO3: calculate the probability distribution of discrete and continuous random variables.

CO 4: understand the change of variable technique.

3C03 STA PROBABILITY DISTRIBUTIONS

CO1: compute mathematical expectation of a random variable.

CO2: familiarize with different discrete probability distribution associated with reallife situations.

CO3: understand the characteristics of different continuous distributions.

CO4: identify the appropriate probability model that can be used.

4C04 STA STATISTICAL INFERENCE

CO 1: understand the uses of Chebychev's Inequality and Central Limit Theorem.

CO 2: apply various method of estimation

CO 3: understand the concept of testing statistical hypotheses and its importance inreal life situation

CO 4: apply ANOVA

CORE COURSES FOR BA ECONOMICS

5 B07 ECO BASIC TOOLS FOR ECONOMIC ANALYSIS I

CO 1. To enable the students to understand economic concepts with the aid of mathematical and Statistical tools.

CO 2. To equip the students to quantify economic variables and to enable them to apply statistical techniques in Economics.

CO 3. To analyze and interpret empirical data with the help of statistical tools

6B 12 ECO BASIC TOOLS FOR ECONOMIC ANALYSIS II

CO 1. To enable the students to understand and interpret economic concepts with the aid of mathematical and statistical tools.

CO 2. To enable students to apply statistical techniques in Economics.

CO 3. To analyze and interpret empirical data with the help of statistical tools

BSc BOTANY PROGRAMME

Programme Specific Outcomes

PSO1: Skill development for the proper description using botanical terms, identification, naming and classification of life forms especially plants and microbes.

PSO2: Acquisition of knowledge on structure, life cycle and life processes that exist among plant and microbial diversity through certain model organism studies.

PSO3: Understanding of various interactions that exist among plants, animal and microbes; to develop the curiosity on the dynamicity of nature.

PSO4: Understanding of the major elements of variation that exist in the living world through comparative morphological and anatomical study.

PSO5: Ability to explain the diversity and evolution based on the empirical evidences in morphology, anatomy, embryology, physiology, biochemistry, molecular biology and life history.

PSO6: Skill development for the collection, preservation and recording of information after observation and analysis- from simple illustration to molecular database development.

PSO7: Making aware of the scientific and technological advancements- Information and Communication, Biotechnology and Molecular Biology for further learning and research.

PSO8: Internalisation of the concept of conservation and evolution through the channel of spirit of inquiry.

Course Outcomes

CORE COURSE- 1- CYTOLOGY AND ANGIOSPERM ANATOMY

1. Knowledge on general terms with updated information used in cell biology.
2. Observation of variations that exist in internal structure of various parts of a plant and as well as among different plant groups in support for the evolutionary concept.
3. Skill development for the proper description of internal structure using botanical terms, their identification and further classification.
4. Induction of the enthusiasm on internal structure of locally available plants.
5. Understanding various levels of organization in a plant body with an outlook in the relationship between the structure and function through comparative studies.

CORE COURSE-2—REPRODUCTIVE BOTANY

1. Observation and classification of the floral variations from the premises of college and house.
2. Understanding the various reproductive methods sub-stages in the life cycle of plants
3. Observation and classification of the morphological variations in fruits and seeds of angiosperms.
4. Enthusiasm to understand evolution based on the variations in reproduction among plants.

CORE COURSE-3—PLANT DIVERSITY I- ALGAE AND BRYOPHYTES

1. Understanding diversity in morphology, anatomy, reproduction and life cycle in lower groups of plants, algae and bryophytes.
2. Skill Development in collection and preservation of algae and bryophytes.
3. Realizing the economic/ecological importance of Algae and Bryophytes.
4. Understanding the evolutionary lineages in algae and bryophytes

CORE COURSE- 4- PLANT DIVERSITY II – PTERIDOPHYTES AND GYMNOSPERMS

1. A comparative knowledge of lower vascular plants and lower group of flowering plants.
2. Skill development for the proper description, identification and classification through morphological, anatomical and life cycle studies.
3. Awareness on the morphological, anatomical and reproductive features of primitive and advanced plants with an evolutionary link between them.
4. Skill development in collection preservation and studies in diversity studies of pteridophytes and gymnosperms.

CORE COURSE-05-CORE PRACTICAL~1

1.Learning the fundamental techniques used in a botany lab.

2.Understands the working of science by first-hand experience.

3.By comparing different plants and their vegetative and reproductive structures a generalisation in evolutionary concept is attained.

4.Internalisation of practical skills for further application in free, independent, individual needs and helps in designing scientific experimentation.

CORE COURSE~6-ANGIOSPERM SYSTEMATICS AND ETHNOBOTANY

1. Understanding the main features in Angiosperm evolution.
2. Skill development in identification and classification of flowering plants.
3. Ability to identify, classify and describe a plant in scientific terms, thereby.
4. Identification of plants using dichotomous keys.
5. Recognition of locally available angiosperm families and plants.
6. Recognition of economically important plants.
7. Appreciation of human activities in conservation of useful plants from the past to the present.

CORE COURSE-7- PLANT PHYSIOLOGY AND METABOLISM

1. Preliminary understanding of the basic functions in a plant body.
2. Awareness on the interdisciplinary nature of botany, chemistry and physics by studying the principles of plant life, growth and reproduction.
3. Recognising the wonderful mechanism of transport and the Interrelationships existing between metabolic pathways thereby gaining and idea about the importance of plants in the dynamicity of nature.
4. Enhance research interest among students by introducing the historical aspects of physiological research

CORE COURSE-8-- MICROBIOLOGY, MYCOLOGY, LICHENOLOGY AND PHYTOPATHOLOGY

1. Understanding and appreciating the unity and diversity of microbes and fungi,
2. Understanding the significance of microbes in nature's dynamicity.
3. Develop skill in studying the fungal diversity through the study of representative taxon and methodology.
4. Understanding the inter-relationship between plants and microbes both beneficial and harmful.
5. Skill development to diagnose plant disease and to apply general control measures.

CORE COURSE-9- RESEARCH METHODOLOGY, INSTRUMENTATION AND BIOSTATISTICS

1. Learning of the fundamental characteristics of science as a human enterprise, product and intellectual process
2. Understanding the working of science for further application in free, independent, individual needs and in designing scientific experimentation.
3. Appreciation of several scientific works and assessment of its influence on society.
4. Acquire knowledge on the principles, components and applications of various scientific equipments in biology.
5. Foundation knowledge in the basic concepts, components and functions of informatics.
6. Appreciate the importance of statistical principles in biological research.

CORE COURSE -10- ENVIRONMENTAL SCIENCE AND PHYTOGEOGRAPHY

1. Understanding the fundamental concepts in ecology, environmental science and phytogeography.

2. Concept development in conservation, global ecological crisis, Sustainable development and pros and cons of human intervention.
3. Enable the student to appreciate bio diversity and the importance of various conservation strategies, laws and regulatory authorities.
4. Recognition of the need for more research to create a baseline data for sustainable exploitation- Think globally and Act locally
5. Analyse the interrelationship between the geography and pattern of distribution of plants.
6. Appreciate key concepts from economic, political, and social analysis as pertained to the design and evaluation of environmental policies and institutions.
7. Appreciate the ethical, cross-cultural, and historical context of environmental issues and the links between human and natural systems.
8. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world.

CORE COURSE -11-GENETICS, MOLECULAR BIOLOGY AND PLANT BREEDING

1. Identify the basic principles and current trends in classical genetics.
2. Recognise the historical process of the evolution of molecular genetics from classical genetics.
3. Review the relevance of the application of genetic principles in agriculture, medicine, research and industry.
4. Outlining the use of genetic principles for conservation, defining and better understanding of nature.
5. Develop theoretical background on molecular genetics to provide a strong support for the student for future research and employability.
6. Appreciate the way scientists work in understanding biological processes and the organization of cell.
7. Cite examples for scientific interventions to human and plant life through brief exposure to plant breeding principles.
8. Modify the concept on gender, human diseases and their management based on the study of genetic principles of human beings.

CORE COURSE-12-BIOTECHNOLOGY AND BIOINFORMATICS

1. Develop knowledge of the fundamental techniques of biotechnology and the history of its development.
2. Recognise theoretical knowledge on the equipments used in biotechnology which will give a support during future prospects.
3. Connect the genetic engineering principles in agriculture, medicine, research and industry for a better world.
4. Identify the significance of nanobiotechnology results for updated knowledge in that field.
5. Appreciate and criticise the information technology aided advancements in biology.
6. Develop awareness on the economic, social and environmental problems of gene manipulation.

CORE COURSE-13-EVOLUTION AND PALAEOBOTANY

1. Understand the basic principles and current trends in classical evolution.
2. Develop awareness on the historical process of plants and animals with an emphasis on human beings.
3. Relate the evolutionary principles with agriculture, medicine, research and industry.
4. Apply the principles of genetics and evolution in conservation, defining and better understanding of nature.

CORE COURSE- 14- CORE PRACTICAL II

1. Learning the fundamental techniques used in a botany lab related to Mycology, Microbiology, Angiosperms systematics
2. Understands the working of science by first-hand experience.
3. Comaprison skill is attained by comparing different plants and their vegetative and reproductive structures.
4. Incuclation of practical skills for further application in free, independent, individual needs and helps in designing scientific experimentation.

CORE COURSE 15- CORE PRACTICAL III

1. Learning the fundamental techniques used in a botany lab related to Modern biology, biology, Genetics, Bioinformatics and Instrumentation.
2. Understands the working of science by first-hand experience.
3. Internalisation of practical skills for further application in free, independent, individual needs and helps in designing scientific experimentation.

CORE COURSE 16- PROJECT/FIELD STUDY/VIVA VOCE

1. Learning the fundamental techniques used in a research
2. First-hand experience in doing science.
3. Development of the skill to communicate science.
4. Internalisation of skills for further application in designing scientific experimentation.

COURSE OUTCOMES OF B.Sc ZOOLOGY

COMPLEMENTARY ELECTIVE COURSES IN BOTANY

COMPLEMENTARY ELECTIVE COURSE IN BOTANY– 1

MICROBIOLOGY, PHYCOLOGY, MYCOLOGY AND LICHENOLOGY

1. Understanding of the fundamental concepts in classification of plants.
2. Concept development in structure and reproduction of lower plants.
3. Enable the student to appreciate bio diversity, sustainable development with the help of their core subject and subsidiary subject botany.
4. Induce to experiment on the subject in an intensive way to facilitate an interdisciplinary profession/enterprise/enterpreneurship

COMPLEMENTARY ELECTIVE COURSE IN BOTANY– 2

PHYTOPATHOLOGY AND ANGIOSPERM EMBRYOLOGY

1. Understanding of the fundamental concepts in classification of Bryophytes, Pteridophytes, Gymnosperms.
2. Concept development in structure and reproduction of lower plants.
3. Enable the student to appreciate bio diversity, evolution and sustainable development with the help of their core subject and subsidiary subject botany.
4. Induce to experiment on the subject in an intensive way to facilitate an interdisciplinary profession/enterprise/enterpreneurship

COMPLEMENTARY ELECTIVE COURSE IN BOTANY– 3
ANGIOSPERM MORPHOLOGY, ANATOMY AND SYSTEMATICS

1. Understanding of the fundamental concepts in classification of Angiosperms.
2. Concept development in diversity that exist in angiosperms through studies in morphology, anatomy and systematic. .
3. Enable the student to appreciate economic importance of plants belonging to the specified families.
4. Induce to experiment on the subject in an intensive way to facilitate an interdisciplinary profession/enterprise/enterpreneurship

COMPLEMENTARY ELECTIVE COURSE IN BOTANY – 4
PLANT PHYSIOLOGY, ECOLOGY AND APPLIED BOTANY

1. Understanding of the fundamental concepts in Physiology
2. Concept development in plant ecology.
3. Enable the student to appreciate bio diversity, sustainable development with the help of their core subject and subsidiary subject botany in hts biotechnology era.
4. Induce to experiment on the subject in an intensive way to facilitate an interdisciplinary profession/enterprise/entrepreneurship.

COMPLEMENTARY ELECTIVE COURSE IN BOTANY-5-
COMPLEMENTARY BOTANY PRACTICAL

Course Outcomes

1. Learning the fundamental techniques used in a botany lab.
2. First-hand experience in doing science.
3. Internalisation of practical skills for further application in free, independent, individual needs and helps in designing scientific experimentation

BSc ZOOLOGY PROGRAMME

Programme Specific Outcome

PSO1: Skill development for the proper identification, naming and classification of life forms especially animals.

PSO2: Acquisition of knowledge on structure, life cycle and life processes that exist among animal diversity through certain model organism studies.

PSO3: Understanding of various interactions that exist among plants animals and microbes; to develop the curiosity and love on the dynamicity of nature.

PSO4: Understanding of the major elements of variation that exist in the living world through comparative morphological and anatomical study.

PSO5: Ability to explain the diversity and evolution based on the empirical evidences in Morphology, Anatomy, Embryology, Physiology, Biochemistry, Molecular Biology and Life history.

PSO6: Skill development in the observation and study of nature, biological techniques and scientific investigation

PSO7: Making aware of the scientific and technological advancements in the fields of Information and Communication, Biotechnology and Molecular Biology for further learning and research.

PSO8: Internalisation of the concept of conservation and evolution through the channel of spirit of inquiry.

Course Outcomes

Code: 1B01ZLG PROTISTA AND NONCHORDATA - I

CO1. To understand the basic methods in zoology and animal classification.
CO2. Able to appreciate the process of evolution (unicellular cells to complex, multicellular organisms)
CO3. Familiar with the protist and non-chordate world (from Phylum Porifera to Mesozoa) that surrounds us.
CO4. Able to identify the invertebrates (from Phylum Porifera to Mesozoa) and classify them up to the class level with the basis of systematics
CO5. Understand the basis of life processes in the non-chordates (from Phylum Porifera to Mesozoa) and recognize the economically important invertebrate fauna.

Code: 2B 02 ZLG NON CHORDATA - 2

CO1. Familiar with the non-chordate world (Coelomates - from Phylum Annelida to Hemichordata) that surrounds us.
CO2. Able to identify the invertebrates (Coelomates - from Phylum Annelida to Hemichordata) and classify them up to the class level with the basis of systematics
CO3. Understand the basis of life processes in the non-chordates (from Coelomates – from Phylum Annelida to Hemichordata) and recognize the economically important invertebrate fauna.

Chordata – I Code: 3B03ZLG

CO1: Understand the origin and evolutionary relationship in different subphyla of chordates.
CO2: To understand the diversity of chordates (from urochordates to reptiles).
CO3: Understand the unique characters of urochordates, cephalochordates and vertebrates
CO4: Recognize life functions of chordates (from urochordates to reptiles).

Chordata – II and Comparative Anatomy, Code: 4B 04 ZLG

CO1: Understand the general and unique characteristics and classification of Aves and Mammals
CO2: Understand the diversity and relation in form and structure of chordates.

EVOLUTION, ETHOLOGY AND RESEARCH METHODOLOGY, Code: 5B05ZLG

CO1.Realise that the whole living system has a common ancestry and so all are related
CO2. Realise the fundamental characteristics of science as a human enterprise
CO3. Apply scientific methods in day to day life
CO4. Able to design a research work on a topic

ANIMAL PHYSIOLOGY, Code: 5B06ZLG

CO1. Understand the function of various systems at cellular and system levels
CO2. Understand the mechanisms that work to keep the body alive and functioning
CO3. Apply the knowledge to lead a healthy life

BIOCHEMISTRY AND BIOPHYSICS, Code: 5B07ZLG

CO1. Understand the importance of Bio molecules
CO2. Familiar with various biochemical pathways

CO3 : Develop knowledge about equipment like microscopes, spectrophotometers, centrifuges etc

GENETICS, CODE: 5B08ZLG

CO1. Comprehensive and detailed understanding of the chemical basis of heredity.
CO2. Understanding about the role of genetics in evolution.
CO3. The ability to evaluate conclusions that are based on genetic data.
CO4. The ability to understand results of genetic experimentation in animals.

CELL BIOLOGY, IMMUNOLOGY AND MICROBIOLOGY, CODE: 6B09ZLG

CO1. Structural and functional aspects of basic unit of life i.e. cell concepts
CO2. Gather basic concepts of Cell Biology along with various cellular functions
CO3. Understand the basic concepts of immunity
CO3. Understand the diversity of microbes and their use and harm

Code: 6B 10 ZLG, MOLECULAR BIOLOGY & BIOINFORMATICS

CO1. Understand the importance of Bio molecules
CO2.Familiar with various tools and applications of Bioinformatics

Code: 6B 11 ZLG, ENVIRONMENTAL SCIENCE

CO1. Able to describe the relation between abiotic and biotic factors.
CO2. Students are able to describe various biological interactions.
CO3. Students are able to understand how change in population affect the ecosystem

CODE:6B 12 ZLG, DEVELOPMENTAL BIOLOGY

CO 1 : Understand the major steps in embryological development.
CO 2: Understand the intricate mechanisms involved in the development of animals.

COMPLEMENTARY COURSES (FOR BOTANY STUDENTS)

1C 01 ZLG DIVERSITY OF LIFE I, PROTISTANS & NON CHORDATES

CO1. Familiar with the non-chordate world that surrounds us.
CO2. Able to identify the invertebrates and classify them up to the class level with the basis of systematics
CO3. Understand the basis of life processes in the non-chordates and recognize the economically important invertebrate fauna.

2C 02 ZLG DIVERSITY OF LIFE – II, CHORDATE FORM AND FUNCTION

CO1: Understand the origin and evolutionary relationship in different subphyla of chordates.
CO2: Understand the diversity of chordates
CO3: Understand the unique characters of urochordates, cephalochordates and vertebrates
CO4: Recognize life functions of chordates

3CO3ZLG, Animal physiology

CO1. Understand the function of various systems at cellular and system levels
CO2. Understand the mechanisms that work to keep the body alive and functioning
CO3. Apply the knowledge to lead a healthy life

4C 04 ZLG, MEDICAL ZOOLOGY

CO 1: Understanding of the various causative organisms and factors and also how and what preventive measures can be adopted against these.

BA POLITICAL SCIENCE PROGRAMME

Programme Specific Outcomes

PSO1.To improve understanding of basic facts and concepts about political system, including philosophical, constitutional and legal foundations, policy making processes etc.

PSO2.To support students to acquire advanced knowledge of national and international politics. They will gain conceptual depth in the field of Political Science.

PSO3.To promote acquisition of citizenship skills and the ability to understand and appreciate human diversity; and to engage in community life as active citizens.

PSO4.To enable students to evaluate and analyze political processes and effectively apply theoretical and analytical skills to address significant issues in the political world by taking political and administrative responsibilities.

Course Outcomes

Course Title: 1BO1POL: Principles of Political Science

1. Provide students an overview of the nature of politics and government.
2. Enable the students to understand the function of institutional structures and how they drive individual and organizational behaviors.
3. Students will be able to work with the approaches and theories used by political scientists to understand political phenomena.
4. Students will be able to analyze current political situations.

Course Title: 2BO2POL Political Theory

1.Enable the students to understand the theoretical foundations of the discipline by studying political theory in the classical and modern context.

2.While understanding the basic concepts of Law, Liberty, Equality, Justice, Rights, and duties students can develop a theoretical outlook in the political sphere

3.Develops the ability to apply abstract theory to concrete problems by using the ideas of political theorists to address contemporary social issues

4. Students will be able to identify the people who made substantial contributions to the study and/or practice of politics.

Course Title: 3BO3POL Introduction to Indian Constitution

1. Should be able to understand the Political system of India.

2.Can comprehend the legal-formal nature of citizenship and the aspects of Fundamental Rights, Directive Principles and Fundamental Duties as envisaged by the constitution.

3.Should be able to discuss and explain the organisation and functions of the constitutional offices.

4.Helps to Understand the nature and functioning of constitution in post-Independent India.

Course Title: 3BO4POL Ancient and Medieval Political Thought

1. Enable students to identify the major streams and traditions of ancient political thought
2.Understand the philosophical and political roots of modern democratic institutions
3.Should be able to identify the role of ancient political thinkers in building up a modern political theory
4.Enables to analyse the historical and social developments leading to renaissance, secularism, and scientism

Course Title: 4BO5POL: State and Politics in India

1.Enable the students to understand and evaluate the sociological foundations of Indian state
2.Enable students to identify the development of nationalism in India

3.Should be able to recognize areas of tensions between union and states: their nature and implications.

4.Enables students to identify the nature of Indian state and to promote the cause of national harmony and integration

Course Title: 4BO6 POL Modern Western Political

1.Students can understand the philosophical radicalism and the scientific rationalism of the Modern period.

2. Able to discuss the possessive individualism of Hobbes, John Locke's state of Nature and Enlightenment ideas of Rousseau.

3.Should be able to recognize European school of political theory. Utilitarianism also helps to understand the necessity of legal and social reform.

4. Enables to identify various radical socialist schools and contemporary affluent stream of thoughts

Course Title: 5BO7 POL Research Methodology in Political Science

1.Students will be able to identify various types of research in political science. The student will also inculcate the spirit of scientific enquiry and objective research

2.Student will accumulate knowledge on different types of variables, concept of hypotheses, sampling etc.

3. Can elaborate different types of tools and techniques used for data collection and to describe concept, purpose and uses of various tools and techniques in Political Science research.

4. Become aware of various components of research proposal and enable to prepare write up for research proposal.

Course Title: 5BO8 POL Comparative Government and Politics

1.Student will be able to analyse the nature**,** scope, usefulness and relevance of comparative politics

2.Students come to know what is the comparative method and distinguish comparison as a method to acquire knowledge of social and political phenomena flourishing in various Political systems.

3. Enable students to identify cultural contexts of political systems and evaluate them

4**.** Acquire ability to define, explain, describe and to conclude about different political structures and processes in different political systems.

Course Title: 5BO9 POL Political Sociology

1.Students should be able to define Political sociology, describe the nature, explain the scope, analyse approaches to political Sociology

2. Able to discuss the concept of power, legitimacy and authority and their intertwined relation with each other.

3. Should be able to recognize the meaning, nature and importance of Political culture and Political socialization as well as Political Modernisation and Development.

4. Enables to distinguish between social movements and new social movements and to identify

Features of New Social Movements

Course Title: 5B10 POL International Politics

1.Enable to understand the meaning and changing nature of the study of International

Politics .
2. Students will familiarize the major concepts used in the study of International relations
3. Develop capacity to evaluate the various dimensions of foreign policy .
4. Enable students to critically evaluate the current issues and problems of global politics.

Course Title: 5B11 POL Human Rights

1.Enable students to understand the historical growth of human rights
2. The course provides the student with the capacity to identify issues and problems relating to the realization of human rights
3. Students will be able to develop investigative and analytical skills in the field of human rights
4. Enable the students to promote human rights in the community

Course Title:6B12 POL- State and Politics in Kerala

1.The course develops comprehensive understanding about the economy, society and politics of Kerala
2.It enables students to explain the role of state in economic development.
3.It enables students to analyze and interpret political development in the state.
4.The course enable the students to understand new challenges faced by the society of Kerala and to respond to such challenges.

Course Title: 6B13 POL Indian Political Thought

1.Students should be able to identify the major traditions of Indian political thought
2. Able to discuss the different strands of anti-colonial and nationalist thoughts in India. Also helps to narrate the main currents of political Thoughts in Modern India.
3. Should be able to acquaint with the broad contours of the socio-political reforms in the countries.
4.Internalize the great values of Indian tradition propagated by social reformers and political thinkers.

Course Title: 6B14 POL Public Administration

1.Enable students to identify the significance of public administration in modern society
2.Familiarize the concept of organization and the various components of organization
3.Should be able to recognize the meaning, nature and importance of financial administration. Also helps to identify the crucial components of financial administration.
4.Enables to understand the impact of globalization on Administration and changing nature of public service

Course Title: 6B15 POL International Organization and Regional Arrangements

1.Students will familiarize with the developments of international organization and its structure
2.Enable students to understand the pattern of new global order and to critically analyse the same
3.To understand the growing activity of state and non-state actors in the global and regional platforms
4. Empower the students with capacity to analyse the national and international developments

Course Title: 6B16 POL Project Work

Course Outcomes: The purpose of the project work is to familiarize the students with methods and strategies of social science research and to instill in them a passion for research and analysis.

BA ECONOMICS PROGRAMME

Programme Specific Outcomes

1. The programme with structured curricula will support the academic development of the undergraduates.
2. The programme will provide the students with the opportunity to pursue courses that emphasize quantitative, qualitative and theoretical aspects of economics.
3. The programme will provide a well resourced teaching learning environment for the students of economics, which will definitely lead to the ultimate educational goal of "learning to be".
4. The programme will promote academic writing, critical thinking and research aptitude among the students.
5. Needless to point out, the students will gain a source of livelihood by expanding their skill set and widening their knowledge horizon.

Course Outcomes

1. **CORE COURSE I:**

Course Title: **MICROECONOMIC ANALYSIS I (1B01 ECO/DEV ECO)**

Course Outcomes:

The Course Outcomes are the knowledge and skills the student acquire at the end of a course.

1. A strong theoretical and empirical foundation in economics which produces employable graduates and has scope for a variety of opportunities for higher education in economics and related disciplines.
2. Students familiarity about the tool box of micro economics will enhance the capacity for understanding the functioning of economies.
3. A thorough knowledge and theoretical understanding of the foundations of modern economic analysis

2. **CORE COURSE II**

Course Title: **MICROECONOMIC ANALYSYS II (2B02 ECO/DEV ECO)**

Course Outcomes:

1. Students may acquire confidence to apply the principles of micro economics to the decision making of firms and the functioning of the market.
2. Students will also be able to analyze the distributional dynamics of the economy both at the micro and the macro level

3. **CORE COURSE III**

Course Title: **CENTRAL THEMES IN INDIAN ECONOMY (3B03 ECO)**

Course Outcomes:

1. To help the students to identify the basic structure and working of Indian economy by enabling them to use qualitative and quantitative data relating to various economic issues and policies.

2. Students may get an opportunity to identify the strategic drivers in the development of Indian Economy.
3. It will create an environment to comprehend and critically appraise the current problems and policies relating to Indian economy.

4. **CORE COURSE IV**

Course Title: INTERNATIONAL ECONOMICS (3B04 ECO/ DEV ECO)

Course Outcomes:

1. Enabling the students to assess current international economic issues based on theory and evidence.
2. Preparing the students to undertake higher studies and research in issues related to International Economics
3. Students may get an opportunity to examine the trends in global economic performance

5. **CORE COURSE V**

Course Title: **RESEARCH METHODS AND TECHNIQUES FOR ECONOMIC ANALYSIS (4B 05 ECO/DEV ECO)**

Course Outcomes:

1. To initiate students to the field of academic research.
2. Introduce quantitative, qualitative and analytical tools required to prepare small research projects.
3. To bridge the gap between theory and empirics and to familiarize the use and importance of data in research
4. To highlight the importance of scientific research in economics based on academic honesty, integrity and ethics

6. **CORE COURSE VI**

Course Title: **ENVIRONMENTAL ECONOMICS (4B06 ECO/DEV ECO)**

Course Outcomes:

1. To provide a deeper understanding about the interface between ecology and economy.
2. Understand the economic incentives to improve and conserve the environment.
3. To provide basic conceptual understanding of environmental disaster, its management andmitigation
4. Ultimately, greater awareness will be imparted about the issues of environmentally sustainable development in an interdisciplinary perspective.

7. **CORE COURSE VII**

OFFERED BY THE DEPT OF STATISTICS

Course Title: BASIC TOOLS FOR ECONOMIC ANALYSIS I (5 B0 7ECO/ DEV ECO)

Course Outcomes:

1. To enable the students to understand economic concepts with the aid of mathematical and Statistical tools.
2. To equip the students to quantify economic variables and to enable them to apply statistical techniques in Economics.
3. To analyze and interpret empirical data with the help of statistical tools

8. **CORE COURSE VIII**

Course Title: HETERODOX ECONOMICS (5 B08ECO/ DEV ECO)

Course Outcomes:

1. Familiarity with different perspectives of alternative schools of thought may get easily exposed to pluralistic approach to both economic theory and policy.
2. Through such an exposure the course will enhance and diversify the knowledge profile of the students and may get opportunities to pursue higher studies and research in heterodox economics.

9. CORE COURSE IX

Course Title: MACROECONOMIC ANALYSIS –I (5B09 ECO/ DEV ECO)-

Course Outcomes:

1. Students will be able to get a perspective on the working of an economy.
2. By sharpening the macroeconomic tool box students will be able to appreciate macroeconomic policies.
3. Enables the students to pursue higher studies in the core domain of economics.

10. CORE COURSE X:

Course Title: **DEVELOPMENT ECONOMICS** (5B10ECO)

Course Outcomes:

1. To make the students aware of the methodological and measurement issues relating to growth and development.
2. To enable the students to understand the theory and empirics of Development Economics with special reference to less developed countries
3. To provide an understanding about the various development issues and the development gap between policy and practice.

11. CORE COURSE XI

Course Title: ECONOMICS OF BANKING AND FINANCE (5B 11ECO/ DEV ECO)

Course Outcomes:

1 The students will be equipped with theoretical as well as practical aspects of the structure and working of financial system and regulatory mechanisms.
2 The course is expected to expand the skill set of the students for higher studies and employment in finance
3 The students will be aware of the innovations and the related trends in the field of banking and finance with special reference to instruments like derivatives.

12. CORE COURSE XII

Course Title: **BASIC TOOLS FOR ECONOMIC ANALYSIS II (**6B 12 ECO/ DEV ECO)

OFFERED BY THE DEPT OF STATISTICS

Course Outcomes:

1. To enable the students to understand and interpret economic concepts with the aid of mathematical and statistical tools.
2. To enable students to apply statistical techniques in Economics.
3. To analyze and interpret empirical data with the help of statistical tools

13 CORE COURSE XIII

Course Title: **MACROECONOMIC ANALYSIS II** (6B13 ECO/ DEV ECO)

Course Outcomes:

1. Students will be equipped with a sound idea of advancements in macro economics with tools like IS-LM and the developments there after.

2. Students will be equipped with the theories of economic fluctuations and needed policy intervention
3. Student will be able to develop critical thinking and research inquisitiveness in macro economics
4. Opportunities to higher studies and prospects for employment through the knowledge of theories and concepts in Macroeconomics will be enhanced.

13. CORE COURSE XIV

Course Title: **PUBLIC ECONOMICS** (6B14 ECO/ DEV ECO)

Course Outcomes:

1. Better conceptualization of the economic rationale of govt. in terms of allocation, distribution, stabilization and growth in a federal system
2. Better exposure to resource mobilization by the govt. through innovative fiscal instruments like GST.
3. Students are expected to get an overall perspective of public policy and the development programmes aimed at public welfare as well

14. CORE COURSE XV:

Course Title: BASIC ECONOMETRIC ANALYSIS (6B15 ECO/ DEV ECO)

Course Outcomes:

1. This course provides a comprehensive introduction to basic econometric concepts, methodology and techniques of analysis.
2. The Students will acquire knowledge and adequate skills for the development of simple linear econometric models.
3. The students will be able to perform econometric analysis relating to their project work and future research and development.

16. COMPLEMENTARY ELECTIVE COURSE 05

Course Title: INTRODUCTORY ECONOMICS –I (1C 05 ECO)

Offered to I BA HISTORY students

Course Outcomes:

1. The students will get an overall background of the economic theory
2. Specific inputs from micro economics covering the fundamental concepts will improve their analytical skills

17. COMPLEMENTARY ELECTIVE COURSE 06

Course Title: **INTRODUCTORY ECONOMICS II** (2C 06 ECO)

Offered to I BA HISTORY (II SEM) students

Course Outcomes:

1. To familiarize the students about the subject matter of economics mainly relating to concepts in macro economics and public finance.
2. Students are expected to get an awareness of the development issues of Indian economy with special reference to poverty, inequality, unemployment and black economy.

18. COMPLEMENTARY ELECTIVE COURSE 07

Course Title: **HISTORY OF ECONOMIC THOUGHT- I** (3C 07 ECO)

Offered to III SEM BA POLITICAL SCIENCE students

Course Outcomes:

1. Students are expected to get an idea of the economic philosophy in a historical perspective

2. Students are also exposed to heterogeneous thinking in economics

19. COMPLEMENTARY ELECTIVE COURSE 08

Course Title: **HISTORY OF ECONOMIC THOUGHT- II (**4C 08 ECO)

Offered to IV SEM BA POLITICAL SCIENCE students

Course Outcomes:

1. Students are expected to get an idea of the economic philosophy in a historical perspective
2. Students are also exposed to some of the heterogeneous thinking in economics like Neoclassical, Keynesian and Indian economic thinking

20. Course Title: GENERIC ELECTIVE COURSE 03:

KERALA ECONOMY (5D 03ECO/ DEV ECO)

Course Outcomes:

1. Students will be able to understand the structural changes in Kerala Economy.
2. The course will provide the students a basic understanding about the developmental issues of Kerala Economy.

21. Course Title: Project Work

6B 16 ECO/DEV ECO

Course Outcomes:

1. Students will be able to identify a research topic
2. The course will provide the students a basic understanding about various steps in doing research
3. Students will be able to develop a research aptitude.

BA HISTORY PROGRAMME

Programme Specific Outcomes

PSO.1. Understand factual and conceptual aspects of historical changes in multiple areas of the world

PSO.2. Think contextually and critically about the past to understand human experiences

PSO.3. Analyze why and how historical events take place based on the verification of diverse evidences and arguments

PSO.4. Design and write research papers based on primary and secondary sources

PSO.5. Make logical oral presentation of factual and theoretical knowledge of historical events and changes

PSO.6. Develop rational, humanitarian, democratic and secular outlook based on historical knowledge and contemporary societal, economic and political issues

Course Outcomes

History of India I: Pre-historic Times to c.200 CE

CO. 1 Recognize important primary sources for the study of ancient Indian history

CO. 2 Identify early Indian settlements, centres of political and cultural importance

CO. 3 Demonstrate factual and theoretical knowledge of social, economic, cultural and political transformations in early India

CO. 4 Analyze and Explain the significance of different religious and philosophical trends in ancient India.

Cultural Transformations in Europe

CO. 1 Recognize the geographic locations of Greek and Roman states and medieval towns
CO. 2 Understand the broad pattern of political and cultural changes in Europe before 1500 CE
CO. 3 Discuss cultural and intellectual legacies of Greek and Roman civilizations to Modern West
CO. 4 Evaluate cultural differences between ancient and medieval societies in Europe

History of India II: Polity, Society and Culture (c.200-1206)

CO. 1 Understand factual knowledge of social and political formations
CO. 2 Locate major centres political and cultural importance in India
CO. 3 Explain theories of social formation and feudalism in Indian history
CO. 4 Analyze the intellectual and cultural legacy of ancient and early Medieval India

History of Kerala I: Earliest Times to c. 1500 CE

CO. 1 Identify sources for the study of ancient and medieval Kerala history
CO.2 Locate prehistoric and early historic settlements, ports, towns and political boundaries in Kerala
CO.3 Describe social, economic, political and cultural formations of Kerala in ancient and medieval times
CO.4 Produce well researched written work on any aspects of Kerala history using primary and secondary sources

History of India III: Sultanate to British Conquest (1206 -1757)

CO. 1. Understand socio-political formations in Medieval India
CO.2. Describe the evolution of Indo-Saracen art and architecture
CO. 3. Analyze and explain the formation of secular political values in India
CO. 4 Locate centres of cultural, political and commercial importance

Ideologies and Revolutions in the Modern World

CO. 1 Understand origin, stages and results of selected revolutions in the modern world
CO. 2 Analyze and explain different interpretations of world revolutions
CO. 3 Relate the results of modern world revolutions to contemporary developments in the world
CO.4 Produce written work on ideological, humanistic and secular aspects of any of the modern world revolutions

History of India IV: Colonial Transformations (1757-1885)

CO 1: Understand the concept of colonialism and its historiography in India
CO 2: Discuss critically the impact of colonial policies in political, social, economic and cultural life of Indians
CO 3: Assess the influence of social and religious reforms in the modernization of India
CO 4: Analyze and explain how anti-colonial movements originated in the nineteenth century
CO.5: Identify major centres of commerce and anti-colonial movements.

History of India V: Making of the Nation (1885-1947)

CO.1 Understand political, social and economic background of freedom struggle
CO.2 Specify major stages of freedom struggle and their ideological distinctions
CO.3 Analyze the role of nationalist movement in the making of modern India

CO.4 Develop an attitude of nationalism cutting across limited boundaries of religion and caste in order to resist communal forces

History of Kerala II: Making of Modern Kerala (1500 to 1970)

CO.1 Understand factual knowledge of modern Kerala history

CO.2 Explain political, social, cultural, religious and intellectual factors that led to the formation of modern Kerala

CO.3 Analyze and discern the influence of caste and communal organizations in Kerala society and politics

CO.4 Understand the significance of secular and egalitarian values and forces in the making of the cultural identity of Kerala.

Method and Writing of History

CO. 1 Distinguish between primary and secondary sources

CO. 2 Use historical and interdisciplinary methods of research and research tools

CO. 3 Analyze and synthesize historical data collected from different sources

CO. 4 Create reasonable arguments and interpretations with the support of documentary evidences

CO. 5 Write well researched article on any historical events and leaders.

Historiography: Perspectives & Practices

CO: 1 Understand basic terms, concepts and categories of historiography

CO: 2 Describe the origin and growth of history as a branch of knowledge from ancient times

CO: 3 Analyze and explain ideological and methodological foundations of historical writing in ancient, medieval and modern period in world history

CO. 4 Discuss the relevance of interdisciplinary research and objectivity in historical writings.

History of India VI: Developments since Independence (1947-2000)

CO:1 Understand political, economic and cultural changes after independence

CO:2 Assess the role of India at global level as an active member in international organisations

CO: 3 Critically examine and explain the growth of communal forces in independent India

CO: 4 Analyse and discuss the condition of marginalised communities in independent India

History of the Contemporary World (1945 -2000)

CO:1 Understand major political issues and events in the world since World War II.

CO:2 Analyze international problems in the context of diverse political interests and ideological movements

CO:3 Interpret the present political issues in relation with pertinent international events in the twentieth century

CO:4 Develop anti-colonial and anti-racist attitude and universal citizen concept.

Indian Historiography

CO.1 Understand the historical traditions and writings in Ancient and Medieval India

CO.2 Demonstrate comprehensive understanding of the origin and growth of major schools of modern Indian historiography

CO.3 Explain theoretical and methodological differences in historical writings

CO.4 Develop a critical approach in assessing the work of a historian.

PROJECT

CO.1 Learn how to select a research topic and prepare research plan/proposal
CO.2 Understand processes of data collection and research methods
CO.3 Undertake critical analysis of data and make interpretations
CO.4 Prepare a well written and authentic research work with proper references and select bibliography.

DISCIPLINE SPECIFIC ELECTIVE CORE 03, History of Contemporary Kerala (1956-2000)

CO.1 Understand political formations, educational progress and economic development of Kerala after 1956
CO.2 Analyze and explain the concept of Kerala model development
CO.3 Infer and interpret the nature and background of resistance movements
CO.4 Critically examine impact of globalization on the people of Kerala.

COMPLEMENTARY ELECTIVE 01, History of England I: Earliest Times to c.1600 CE

CO.1 Identify geographical features and early settlements
CO.2 Understand the evolution of social and political life in England
CO.3 Describe the origin and growth of English language and literature
CO.4 Analyze and explain historical background of social and cultural transitions.

COMPLEMENTARY ELECTIVE 02, History of England II: From 1600 to 2000 CE

CO.1 Understand the growth of English literature in different stages
CO.2 Explain the political and social history of modern England
CO.3 Analyze how history of England and English literature are intertwined
CO.4 Assess new features of new literary trends in English.

COMPLEMENTARY ELECTIVE 05, Political Revolutions in the Modern World

CO.1 Demonstrate clear understanding of major events in selected revolutions
CO.2 Identify and explain the central principles of revolutions
CO.3 Analyze and interpret major causes and impacts of revolutions
CO.4 Relate the results of the revolutions to contemporary political systems.

COMPLEMENTARY ELECTIVE 06, History of Twentieth Century World

CO.1 Understand major events and issues in twentieth century world
CO.2 Analyze and explain how ideological and political differences divided the world
CO.3 Relate present day political problems to pertinent historical context
CO.4 Develop an analytical construct to discuss global political issues.

COMPLEMENTARY ELECTIVE 07, Economic History of Modern India (1793-1947)

CO.1. Demonstrate comprehensive understanding of colonialism and economic changes that took place under colonial rule
CO.2. Explain the nature of industrialization in India and how it acted as impetus to national movement
CO.3. Analyze the impact of British colonialism on Indian economy
CO.4. Develop a critical approach to discuss the exploitative nature of colonial and capitalist economic policies.

COMPLEMENTARY ELECTIVE 08, Indian National Movement

CO.1. To understand the background of Indian national movement
CO.2. To create awareness on different stages and streams of Indian national Movement

CO.3. To analyze the role of Indian National Movement in the making of modern India
CO.4. To develop a sense of pride in India's past and to mould an ideal citizen
CO.5. To develop a secular and national outlook among the students.

GENERIC ELECTIVE COURSE 01, Social Reform Movements in Kerala

CO.1. Understand the role of Western education, missionary activities and indigenous reform movements in the making of modern Kerala
CO.2. Evaluate the ideas, programmes and tactics of social reformers
CO.3. Promote critical thinking about various social and religious issues in Kerala
CO.4. Analyze and explain secular foundations of Kerala society

BA MALAYALAM PROGRAMME

Course Outcomes

Course Title:Common Course-I 1A07MAL Kadha Mathrakakal

CO1:Cherukadha Novel ennu Ee Sahithya Roopangale Samanyamayi Parichayapeduka,Vayana Abhiruchiyum Aswadhanasheshiyum Valarthiyedukkuka
CO2:Cherukadhayudeyum Novelinteyum Udhayavikasangale Kurichulla Avabodhamundakkuka
CO3:Khadana,Premeyam,Akhyanam Thudangiyava Vilayiruthukayum Rachanakalude Rashtriyam Abhakrithikkukayum Cheyuka
CO4:Jeevithavasthakalude Sangeernathakalum Anubuthukalaum Bodhyapeduthukayum Vodhyarthikalku Maulikarachanakal Nadathunnathinu Vazhiyorukkukayum Cheyuka

Course Title:Common Course-II 2A08MAL Kavitha Mathrakakal

CO1:Jeevithavasthakal Sangeernathakal Anubhuthikala Enniva Avishkarikkunna Bashayude Samdhreekritha Roopamaya Kavitha enna Sahithyaroopathe Samanyamayiparichaya pedukayum Kavya Aswadhanasheshi Roopapeduthiyedukkukayum Cheyukka.
CO2:Malayalakavithayude Valarchayilum Vikasathilum Nirnayaka Swadhinam Cheluthuya Kavikaleyum Kavya Mathrakakaleyum Kurichu Abhabodhamundakkuka.
CO3:Prachinam,Madhyakalam,Navodhanam,Adhunikam, Adhunikanantharam,Ennee Kalakattangalil Malayalakavithayilundaya Roopapa Bhava Parinathikale Parichayapeduka.
CO4:Bashayude Savishesha Prayokathilude Kavitha Sadhyamakkunna Samoohya Samskarika Parithivasthakalude Avishkaranavum avayude Rashtriyavum Thiricharinju Neeroopana Budhya Vilayiruthanulla Parisheelanam Nalkuka.

Cource Title:Common Course-III3A09MAL Gadhyasahithyam

CO1: Athmakadha/Smarana,Jeevacharithram/Kettezhuthu,Sanchara Sahithyam Neerupanam Thudangiya Gahyaroopangalude Udhbavam Valarcha Parinamam Ennivayepatti Samanya Abhavodhamundakkuka.
CO2: Gadhyassahithya Krithikal Vayikkunnathinum Neeroopana Manobhavathode Aswadhikunnathinum Prerippikkuka.
CO3: Gauravapoornamaya oru Cinema Aswadhana Samskaram Valathiyedukkuka.
CO4: Vividhangalaya Gadhyarachana Shayilikal Parichayapeduka.
CO5: Gadhya Bashayude Prayogasheshi vikasippikkuka.

Cource Title:Common Course-IV 4A10MAL Drishyakalasahithyam

CO1: Keralathinte Thanathaya Drishyakala Parambaryathekurichum Sambanathayekurichum Vidhyarthikalku Arivupakaruka.

CO2: Kadhakali,Tullal,Nadakam,Cinema polulla Drishyakalakaleyum Avayekuadharamaya Sahithya Padangaleyum Parichayapeduthuka.
CO3: Kalaparavum Sahithyaparavumaya Puthiya Anubhavangale Ulkollall,Kavya Anubuthikalkopam Jeevitha Abhavothathinte Swamshikaranam enniva Lakshyam.
CO4: Samuhuka Parishkaranathinteyum Manasamskaranathinteyum Chalakashakthikalayi Nadakam poleyulla Kalasrishti Vardhikkunnathine Vishakalanam Cheyyuka.
CO5: Cinema enna Janakiya Kalayude Kevelaswadhanathinappuramulla Sayithandhika Thalangallilekum Samuhika Samskarika Vayanakallilekum Vidhyarthikale Sacharakkuka.

1A07-1MAL Sahithyaroopangal

CO1: Malayalabashayudeyum Sahithyathinteyum Vikasaparinamathil Vividha sahithyajanasukal Cheluthiya Swadhinathekurichulla Abhavodam Roopapeduthuka.
CO2: Sahithyaswadhanathinum Sahithyapadangalude Vishakalanathinum Vidhyarthikale Praptharakkuka.
CO3: Nadakam/Cinema thudangiya Kalaroopangalude Aswadhanathodoppam Avayude Bhavathalathe Vimarshanathmakamayi Swadhinikkanulla Prapthineduka.
CO4: Vidhyarthikalakidayil Vayanayum Kalaroopangalude Aswadhanavum Thudarprakriyeyayimattanulla Prerana Nalkuka.

2A08-1MAL Gadhyaroopangal

CO1: Vividha Gadhyaroopangalude Gadana Prameyam Akyanam enniva Samanyamayi Parichayapedukayum Asewadanasheshi Valarthukayum Cheyuka.
CO2: Jeevitham Ezhuthuroopangalaya Athmakatha,Jeevacharithram,Smarana,Thudangiyavayude Vayananopavamtoopapeduthuka.
CO3: Sancharasahithyam Mathrukakal Parichayapedukayum Yathrayude Anoopavam,Akhyanam,Vipananam,Rashtriyam,enniva Vimarshana Budhiya Vilayiruthukayum Cheyuka.
CO4: Anupoothikalude Avishkritha Roopangalude Aduthariyukayum Uparivayanayil Thalparyam Undakiyedukkukayum Cheyuka.
CO5: Yathrakal Sankadippikkukayum Ythra Anubhavikkukayum Aswadana Kurippukal Theyyarakkukayam Cheyyuka.

CORE COURSE-I MALAYALAKAVITHA ADHUNIKAM ADHUNIKANANTHARAM 1B01MAL

CO1: Malayalathile Ahinikanantharakavithayekurichu Azhathilulla Abhavothamundakkuka
CO2: Kavithayum Samskaracharithravum Thamilulla Vinimayangalekurichu Bodhyamundakkuka
CO3: Bashayude Adhisanthraroopamaya Kavithayil Aswadhanasheshi Vardhuppikkuka.
CO4: Sargathmakasheshi Paribooshippikkuka.

CORE COURSE-II CHERUKADHA SAHITYAM 2B02MAL

CO1: Samanyamaya Sahithyaparichayavum Vayanaabhiruchiyum Aswadhana sheshiyum Valarthiyedukkuka.
CO2: Cherukatha sahithyathile Bavukathaparinamangal Thirichariyuka Klakattathinte pothupravanathakalum Uthathajeevitha veeshanavum Ezhuthil Prakadamavunnathu Anubhavikkukka.

CO3: Prameyathilum avatharanathilum Akyanathilumulla Chalanangal Kathayude Rashtriyam Samakalakathayile Palama,Utharadunika ezhuthu,ev=niva vilayiruthukayum abhakeerthikkukayumcheyyukka.

CO4: Adhunika Jeevithathile Kalushathakal Swathwasangarshangal Avatharanathile Parishanangal Thidangiyava Manasilakkuka.

CORE COURSE-III MALAYALASAHITHYA VIMARASHANA 3B03MAL

CO1: Vimarashnam enna Sahithyaganathepatti Sathanthikavum Prayokikamaya Avabodhamundakkuka.

CO2: Malayalavimarshanathinte Udhbavam,Valarcha,Vikasaparinamangal,enniva Charithrathmakamayi Manasilakkuka.

CO3: Malayalathile Pradhana Vimarshakar Vimarshana Samipanangal Samakalina Vimarshanam ennivayepatti Dharanayundakkuka.

CO4: Vimarshanacharithrangalude Punarvayanakalkkum Avayude Vimarshanathmakamaya Abhakrithanangalkum Prerananalkuka.

CO5: Sahithyakrithikale Niroopanam Cheyyunnathinu Prachodhanavum Parishulanavum Nalkuka.

CORE COURSE-IV INDIAN KAVYASITHANTHANGAL 3B04MAL

CO1: Indiayil thane Undayittulla Vyathyashtamaya Lavanya Sashtra Sidhandhangalepatti Manasilakkanum Vimarshanathmakamayi Vilayiruthanullasheshi Nalkunnu.

CO2: Sahithyapadanavum Sidhanthapadanavum Thamilulla Parasparyam Thirichariyunnu.

CO3: Kavyasauntharya Kadakangale Kandethunnu.

CO4: Sargathmaka Prakriyepattityulla Sukshmamaya Chintha Lokathepatti Arivunedunnu.

CORE COURSE-V PASCHATHYA SAHITHYA SITHANTHANGAL 4B05MAL

CO1: Paschathya Kavya Chintakale Samanymayi Parichayapedunnu.

CO2: Paschathya Sidhanthangalude Charithraparamaya Valarchayum Vikasavum Tirichariyunnu.

CO3: Kalasidhanthangalepattiyulla Vipinnamaya Chinthatharakale Apathrathikkanullasheshi Nedunnu.

CO4: Sahithya Niroopanathil Prasthutha Sindhanthangal Cheluthunna Swathinathepatti Manasillakanulla Thalparyam Roopapedunnu

CORE COURSE-VI PRACHINA-MADHYAKALA SAHITHYAM 4B06MAL

CO1: Pattu,Manipravalam,Sandheshakavyangal,Chembukal,enni Prachina Madhyakala Sahithya Roopangalude Aswadhanavum Vishakalanavum.

CO2: Prachinagadyathekurichulla Samanyadarana Neduka.

CO3: Krishnagadha Kilippattu,Thullal,Vanchippattu,Paana,Attakadha. Thudangiya Sahithya Roopanhalude Parichayavum Aswadanavum.

CO4: Madhyakala Gadhyasahithyathekurichu Samanya Darana Neduka.

CO5: Venmani,Pachamalayalaprashthanangal,Vilapakavyam,Vadakkan,ThekkanPattukal enniva Malayalakavithayude Bavukathwaparinamathil Cheluthiya Swathinathekurichu Abavodamundakkuka.

CO6: Adhunika Malayala Gadhya Roopikaranathekurichu Samanya Darana Neduka.

CO7: Prachina Madhyakalakrithikalude Prathipathya-Prathipathana Savisheshathakalekurichu Vidhyarthikalil Samanya Darana Undakkuka.

CORE COURSE –VII VYAKARANAPADANANGAL 5B07MAL

CO1: Parambarakatha Vyakaranathe Parichayapedukayum Avayude Adistana Daranakal Grahikkukayum Cheyuka.
CO2: Basha Niyamangalepattiyulla Nirikshanangalum Sidhanthangaalum Charithraparmayum Vimarshanathmakamayum Manasilakkuka.
CO3: Gadhyabashaye Vyakaranathinte Vishakalanopathikal Upayogichu Ukthisahavum Sasthriyavumayi Abhakrithikkanullasheshi Vikasippikkkuka.
CO4: Bashaprayoga Vyavidhyangalku Pinnilulla Yukthikal Vishakalanam Cheyyuka.
CO5: Sukshmamaya Bashaprayogasheshi Vikasippikkuka.

CORE COURSE-VIII NOVEL SAHITHYAM 5B08MAL

CO1: Malayalanovel Sahithyathekurichu Abhavodhamundakkuka.
CO2: Novel Sahithyacharithrathile Vividhakattangal Manasilakkukayum Oro Kattathileyum Novelukalude Akhyanam Prameyam Pradinithana Savisheshathakal Ennivayekurichu Vyakthamaya Daranayundakkukayum Parichayapeduthukayum Cheyyuka.
CO3: Malayalanovel Vikasacharithram Vidhyarthikal Ghrahikkukayum Novelukal Samuhya Charithrapadangalayimarunnathinte Sathutha Anweshikukayum Vilayiruthukayum Cheyyuka.
CO4: Aswadanathodoppam Sargathmaka Rachanakkulla Prachodanam Nalkuka.

CORE COURSE-IX SAMSKARAPADANAVUM SAHITHYAVUM 5B09MAL

CO1: Samskarapadanam Enna Anther Vayithnjanika Padanamegaleye Parichayapeduka.
CO2: Sahithyapadangalude Samskarika Vishakalanthinu Vidhyarthiye Praptharakkuka.
CO3. Samskarathe Vyathyasthamaya Samoohika Prakriyakalayi Manasilakkanum Avayudeparinamatheyum Avakullille Adhikara Bendhangale Manasillakkunnathinu Sahithyapadangale Prayochanapeduthunnathinulla Parishilanam Nalkuka.
CO4: Sahithyapadanathe Vishayanthara Samipanamayi punarkrimikarikkan Sahayikkuka.
CO5: Sahithyagaveshanathinte Reethisasthra Mathrikakale Pradhmikamayi Parichayapeduka.
CO6: Anubhoothikalum Samoohika Sandarbangalum Thamilulla Bandhathe Thirichariyunnathimu Vidhyarthikku Preranayakuka.

CORE COURSE-X KERALASAMSKARAM 5B10MAL

CO1: Vidyarthikalil Samskarika Abavodam Valarthuka.
CO2: Samoohikamayulla Idapedalukal Nadathuka.
CO3: Pradeshikacharithrathinte Veendeduppinte Avishyakathaye Sambanthichu Bodhavanmarakkuka.
CO4: Badhayudeyum Samskarathinteyum Bahuswarathayekurichulla Abhavodham Pakaruka.
CO5: Charithra Sambanthavum Samskara Sambanthavumaya Mundharanakale Thiruthan Prerippikkuka.
CO6: Vyakthamayarashtriya Samoohika Ahavodhamulla Yuvathalamuraye Roopappeduthuka.

CORE COURSE-XI NADODI VIJNJANIYAM 5B11MAL

CO1: Samoohika Jevithathinte Arambam Muthalulla Manushya Jeevithathinte Vivitha Vashangale Adayalpeduthunna Nadodi Virthnjaniyam Enna Padanashakaye Parichayapeduthuka.
CO2: Folklorinte Prasakthiye Kurichum Ee Njan Mathruka Nirvahikkunna Samoohika Darmathekuruchulla Avabodham Roopapeduthuka.

CO3: Folklore Padanarangathe Nuthana Pravanathakal Parichaya Peduka.
CO4: Sahithyakrithikalude Aswadhanathinu Folklorinte Sahityakrithikalude Aswadhanthinu Folklirinte Sathyathakale Upayogapeduthunnathinulla Samanyaparichayam Neduka.

CORE COURSE-XII BASHASHASTHRAM 6B12MAL

CO1: Bashashasthram enna vishayamegalaye Parichayapedukayum Bashashastraparamaya Adithara Roopapeduthukayum Cheyuka.
CO2: Bashayeyum Bashanatheyum Yukthisahavum Sasthriyavumayi Samipikkanulla sheshi Vardhippikkuka.
CO3: Vythyastangalaya Basha Abhakrithana Reethikal Manasillakkuka.
CO4: Bashaprayoga Vyvidyangal Kandethukayum Bashashastrathinte Vishakalana Upadhikal Upayogichu Avaye Apakrathikkukayum Cheyyuka.
CO5: Basha Prayogangalilninnu Bashaniyamangal Kandethunnathilekum Adhuvazi Sidhantharoopikaranathilekkum Vidhyarthikale Praptharakkunnathinulla Prathamika Padavukal Srishtikkuka.

CORE COURSE-XIII MADHYAMA PADANAM 6B13MAL

CO1: Madhyamalokathinte Vipillavum Viplavakarangalumaya Sadhyathakalekurichu Arivu Pakaruka.
CO2: Vivarasankethika Vidhyayude Lokathu Swathanthravum Yukthibadhravumaya Vikshanangal Roopikarikkan Prapatharakkuka.
CO3: Vithnjanaspodanathilekku Mansukale Anayikkunna Srothasukale Parichayikkuka.Madhyamangalude Sanidhyathilude Samoohathinu Labikkunna Samskarikaunnamanathe Kurichu Arivu Pakaruka Madyamangalile Vayividhya Poornamaya Paripadikalude Aswadanathinum Vilayiruthalinum Sachamakkuka.
CO4: Prathipasampannarayittulla Vidhyarthikalaku Madhyama Lokathekku Praveshikkanullan Prachodanam Nalkukka.
CO5: Madhyama Samskirathe VimarshanathmakamayI Vilayiruthan Vidhyarthikale Praptharakkuka.

CORE COURSE-XIV VIVARASANKETHIKA VIDHYAYUM MALAYALAVUM 6B14MAL

CO1: Vivarasankethika Rangathe Vikasam Basha Sahithya Padananathil Prayojanapeduthuka.
CO2: Computerile Malayalam Mechapeduthunnathinu Vibavangal Pradhanam Cheyyuka.
CO3: Unatha Vidhyabhyasathile Vivarangalude Kayikarya Kathruthwam Elippamakkuka.
CO4: Computerilude Bahujana Vidhyabhyasa Samrabhangal Prolsahippikkuka.
CO5: Internetil Malayalasahityavumayi Bendhappetta Vivarangal Vardhippikkan Parisramikkuka.

CORE COURSE-XV VIVARTHANA SAHITHYAM 6B15MAL

CO1: Vivarthana Sahithyamegalaye Parichayapeduka
CO2: Vivarthanathile Prashnangal Samskarika Vinimayangal Ennivayepatti Avabodhamundakkuka.
CO3: Malayalathile Vivarthana Sahithya Shakayepatti Ariyuka.
CO4: Ithara Bashakalilninnulla Sahithyakrithikal Malayala Sahityathil Cheluthiya Swathinam Thirichariyuka.

Complimentry Elective Course-I PARISTITHI-DHALITH-LINGA PADAVI PADANAGAL 1C01MAL

CO1: Paristhithi Dhalith Linga Padhavi Padana Megaleye Samanyamayi Parichayapeduka.

CO2: Ee Sayidanthika Samipanangale Vayanayilum Ezhuthilum Prayojanappeduthuka.

CO3: Iva Munnotu Vekkunna Rashtriyathe Thirichariyuka.

CO4: Ee Vayithnjanika Megalakalude Adistanathil Malayalathile Sahithya Rachanakale Vishakalanam Cheyyuka.

COMPLEMETRY ILLECTIVE COURSE-II MALABAR PADANANGAL 4C04MAL

CO1: Vadakke Malabarinte Palamaye Manasilakkukayum Padana Anweshana Mathrikakal Theliyichedukkukayum Cheyyuka.

CO2: Vadakke Malabarinte Bhoomi Shasthratheyum Prakrithiyeyum Samskaravumayi Bandhippuchu padikkuka.

CO3: Vadakke Malabarile Charithra Paravum Samakalikavumaya Samskarika Roopikaranangale Padikkuka.

CO4: Kalayum Sahithyavum Jeevitha Roopangalodu Bandhapedunnathum Kannicherunnathu Enganeyenna Daranakal Roopappeduthuka.

CO5: Jeevikkunna Chuttupadukale Padiya Vasthuvumayi Bandhippikkanulla Sheshikal Vikasikkan Udavum Vitham Ethangilum Nishchita Boovibhakangalile/Samskarika Meghalakalile/Pradeshangalile (Kannur,Kasargod,Wayand).Janajeevithathe Prayokika Padanathinu Vidhayamakkuka.

GENERIC ELECTIVE COURSE-I JANPRIYA CINEMA PADANAM 5D01MAL

CO1: Cinema enna Kalaroopathinte Samoohya Pradhanyam Ulkondu Athine Samipikkan Padithakkale Praptharakkuka.

CO2: Janapriyacinemakale Vimarshana Budhiaya Veekshikkanulla Sheshi Undakkuka.

CO3: Uru Hriswachitramo Campus Filmo Documentriyyo Nirmikkanulla Thalparyavum Sheshiyum Padithakkalil Undakkuka.

CO4: Chalachithra Niroopanam Nadathanulla Sheshi Padithakkalil Undakkuka.

CO5: Cinemayude Rashtriyam Thirichariyanum Charcha Cheyanum Padithakkalil Sheshiyundakkuka.

GENERIC ELECTIVE COURSE-II CYBER SAHITYAM 5D02MAL

CO1: Marunna Sankethika Samskaratheyum Ava Sahityathilum Samskarathilum Undakkiya Mattangaleyum Parichappeduka.

CO2: Navasamoohika Madhyamangale Jeevithathil Gumaparamayi Prayochana peduthan Prerana Nalkuka.

CO3: Sankethika Vikasam Sahithya Samskara Padanarangathe Mithavu Vardhippikanayi Sangethika Vidhya Prayojanapeduthan Shilippikkuka.

CO4: Sargathmakathayil Sangethika Vidhya Prayojanpeduthan Sheelippikkuka.

CO5: Onlinekala Sahitya Mathrikakal Parichayapedukayum Padanavidhayamakukkayum Cheyuka.

GENERIC ELECTIVE COURSE-III NOVEL VAYANA 5D03MAL

CO1: Oru Sahityaganamennanilayilum Akyana Roopamennanilayilum Novel Enna Sahitya Vibhagathe Samagramayi Ulkollanum Vishakalanam Cheyyanumulla Sheshi Vikasippikkuka.

CO2: Novel Enna jenusu Roopam Kodutha Pusthaka Samskarathinte Vayanasamkarathinte Swabavam Parishidichu Ariyuka.
CO3: Samoohathinteyum Adhunika Yukthikale Novelukal Swamshikarichathu Engane Ennu Vishakalanam Cheyyuka.
CO4: Novel Vayanakalumayi Bandhaetta Sidhandhangaleyum Sameepanagaleyumpatti Avabodham Undakkuka.
CO5: Novel Ulpadeyulla Sahitya Krithikalude Aswadhanathinum Vimarshanathmakamaya Vishakalanangalkum Pariyapthamaya Sidhandhangalum Sameepana Reethikalum Vikasippikkuka.

GENERIC ELECTIVE COURSE-IV 5D04MAL VAIKKAM BUHAMMED BASHEER PADAVUM PADANAVUM

CO1: Malayalathile Prathibathanaraya Ezhuthukarepatti Arivundakkuka.
CO2: Basheerinte Samagramaya Sahitya Sambavanakale Thirichariyuka.
CO3: Ezhuthu Enna Prakriyyude Samskarika Swadinangalepatti Manasilakkuka.
CO4: Basheerinte Krithikalile Basha,Manvikatha,Sahajeevisneham,Parasthithiks Bodham EnnivayePatti Bodhyamundakkuka.

GENERIC ELECTIVE COURSE-V MALAYALA BASHAYUM PRAYOGAVUM 5D05MAL

CO1: Mathribasha Enna Sankalppathinte Pradhanyam Manasillakkunnu.
CO2: Malayalathinte Bahshaparamaya Prayoga Visheshangal Thirichariyunnu.
CO3: Malyalathinte Vyakarana Karyangal Samanyamayi Manasillkunnu,
CO4: Bashayude Swandharyathmakathayum Thanimayum Vishakalanam.
CO5: Ashaya Vinimayam Durgraham Ellatha Reethiyill Bashaprayogikkanulla Sheshi Neduka.

BA HINDI PROGRAMME

Programme Specific Outcomes

PSO 1: Development of language skills.
PSO 2: Development of aesthetic perception.
PSO 3: Development of functional nature of language.
PSO 4: Developing the skill of linguistic analysis.
PSO 5: Development of translation skill.

Course Outcomes

Course Title: 1BO1 HIN NATYASAHITHYA

CO 1: Analise Dramatical Elements in Literature.
CO2: Understand the distinct features of Hindi Drama.
CO3: Understand the difference between Drama and one act play.
CO4: Enrich the knowledge of Art of Drama.

Course Title: 2BO2HIN HINDI SAHITHYA KA ITIHAS REETHIKAL THAK

CO 1: Trace the development of Ancient Hindi Literature from its beginning.
CO2: Demonstrate knowledge of Literary terms, major periods, authors genres and theories.
CO3: Apply critical thinking independent judgment, inter cultural sensitivity and regional, national and global perspectives to identify and solve problems in Ancient Hindi Literature.

CO4: Develop complex reading, writing and research skills.

Course Title: 3BO3 HIN VYAKARAN

CO 1: Understand the correct usage of Hindi grammar in writing and speaking.

CO2: Understand the differences between spoken and written Hindi.

CO3: Understand the factors that influence use of grammar and vocabulary in speech and writing.

CO4: Understand the different ways in which grammar has been described.

Course Title: 3 BO4 HIN HINDI SAHITHYA KA ITIHAS GADHYA

CO 1: Trace the development of modern Hindi Prose from its beginning to the present day.

CO2: Interpret the works of great literary personalities in the modern Hindi prose.

CO3: Demonstrate significant cultural and social issues presented in Modern Hindi prose.

CO4: Understand theoretical approaches to critical reading of literary texts.

Course Title: 4 B05 HIN HINDI SAHITHYA KA ITIHAS PADYA

CO 1: Trace the development of modern Hindi literature poetry form its beginning to the present day.

CO2: Demonstrate knowledge of literary terms, major periods, authors, genres and theories.

CO3: Develop complex reading writing and research skills.

CO4: Demonstrate through discussion and writings an understanding of significant cultural and social issues presented in modern Hindi Literature poetry.

Course Title: 4 B06 HIN HINDI BHASHA KA UDBHAV AUR VIKAS

CO 1: Trace the process of beginning and growth of Hindi language.

CO2: Basic knowledge on the nature of language and place of language study in society.

CO3: Get integrated view about origin and development of script. CO4: Identifying the dialects of Hindi language family.

Course Title: 5 B07 HIN ANCIENT AND MEDIEVAL HINDI POETRY

CO1: Understanding the socio cultural background of Adikaleen Hindi poetry.

CO2: Understanding the socio cultural background of Madyakaleen Hindi poetry.

CO3: Analyse the poetries of all Pracheen poets.

CO4: Understanding the relevance of Pracheen and Madyakaleen poetry.

Course Title: 5 B08 HIN ANUVAD SIDHANTH AUR PRAYOG

CO1: Develop the art of translation.

CO2: Understand the importance of translation in present world with its various theories.

CO3: Understand the idea of basic principles in translation, issues faced by translators.

CO4: Understand the cultural aspects of translation.

Course Title: 5 B09 HIN BHARATHEEYA SAHITHYA SASTRA

CO 1: Understand the critical practices from the past to present.

CO2: Develop a critical perspective on the historical over view of Indian literary theory.

CO3: Understand these theories and its application

CO4: Analyse literary texts from different points of view.

Course Title: 5 B10 HIN HINDI KATHA SAHITHYA

CO1: Analyse variety of short stories in the cultural and historical context.

CO2: Analyse novel in the modern context.

CO3: Understand the story content and structure in depth.

CO4: Develop the skill of analytical reading of fiction.

Course Title: 5 B11 HIN GADHYA KE VIVIDH AYAM

CO 1: Understand about the modern prose forms

CO2: Understand the literariness of Hindi prose

CO3: Understand the values of life.

CO4: Develop skill of creative writing.

Course Title: 6 B12 HIN BHASHA VIGYAN

CO 1: Understand the history of general Linguistics.

CO2: Understand core areas of language analysis including its phonology, morphology, syntax and semantics.

CO3: Develop Linguistic competence and communicative skills.

CO4: Understand the nature of language and the place of language study in society.

Course Title: 6 B13 HIN ADHUNIK EVAM SAMAKALEEN HINDIKAVITHA

CO 1: Understanding the concepts of Romantic Hindi poetry.

CO2: Understanding the socio cultural background of modern Hindi poetry and the concept of modernity.

CO3: Understanding the literariness and the aesthetic aspect of contemporary Hindi poetry.

CO4: Developing critical and analytic approach to poetry

Course Title: 6 B14 HIN HINDI SAHITHYALOCHANA

CO 1: Understanding the development of Hindi criticism in the modern era.

CO2: Understanding the Romantic theory of Hindi criticism.

CO3: Understanding the theory of psycho analysis and Marxian theory of Hindi literature.

CO4: Demonstrating the contemporary Hindi criticism and critics.

Course Title: 6 B15 HIN PASHCHATHYA SAHITHYA SASTRA

CO 1: Understand the issues and questions raised by literary theorists.

CO2: Understand the terms and concepts employed in the discussion of literary theories.

CO3: Understand the history and evolution of western literary theory.

CO4: Develop the ability to apply different literary theories and interpretive approaches to the analysis and interpretation of specific literary works.

Course Title: 6 B16 HIN PARIYOJANA KARYA

CO 1: Demonstrate a depth of knowledge of Hindi Language and literature.

CO2: Demonstrate knowledge of contemporary issues in their chosen field of research.

CO3: Developing the research skill and language skill.

CO4: Demonstrate an ability to present and defend their research work to scholars.

COMPLEMENTARY ELECTIVE COURSES

Course Title: 1C01HIN HINDI MEDIA LEKHAN

CO 1: Understanding the history of Indian Cinema.

CO2: Develop script writing skill.

CO3: Understand about the different types of medias and its writing skill.

CO4: Develop skill in film criticism.

Course Title: 2C02HIN HINDI JOURNALISM/ SANSKRIT

CO 1: Understand the basic theory of journalism

CO2: Understand the history of journalism in Hindi.

CO3: Demonstrate the various newspapers in Hindi.

CO4: Develop writing skill in Hindi media

Course Title: 3C03HIN CULTURAL HISTORY OF INDIA/SANSKRIT

CO 1: Understand cultural set up in India.

CO2: To get a basic knowledge about Indian cultural diversity.

CO3: To know about Indian cultural civilizations.

CO4: To know about cultural renaissance of India.

Course Title: 4C04HIN FUNCTIONAL HINDI

CO 1: Understand the meaning concept and importance of functional Hindi.

CO2: Understanding various forms of functional Hindi and official language acts.

CO3: Understanding various forms of official letter drafting.

CO4: Develop official word knowledge

BA FUNCTIONAL HINDI PROGRAMME

Programme Specific Outcomes

PSO 1: Development of language skills.

PSO 2: Development of aesthetic perception.

PSO 3: Development of functional nature of language.

PSO 4: Developing the skill of linguistic analysis.

PSO 5 : Development of translation skill.

COURSE OUTCOME

1BO1FHI- Hindi drama and one act play

CO1 : Analyze Dramatical Elements in Literature.

CO2 : Understand the distinct features of Hindi Drama.

CO3 : Understand the difference between Drama and one act play.

CO4 : Enrich the knowledge of Art of Drama.

2B02FHI- HINDI UPANYAS

CO 1:Understanding the literariness of Hindi Novels

CO2:Understanding socio cultural background of Hindi Novels.

CO3:Developing the skill of creative analysis

CO4: Development of humanity

3BO3FHI- UPAYOGI HINDI VYAKARAN

CO 1 : Understand the correct usage of Hindi grammar in writing and speaking.

CO2 : Understand the differences between spoken and written Hindi.

CO3 : Understand the factors that influence use of grammar and vocabulary in speech and writing.

CO4 : Understand the different ways in which grammar has been described

3B04FHI- HINDI SAHITHYA KA ITIHAS (RITHIKAL THAK

CO1 : Trace the development of Ancient Hindi Literature from its beginning.

CO2 : Demonstrate knowledge of Literary terms , major periods, authors genres and theories.

CO3 : Apply critical thinking independent judgment, inter cultural sensitivity and regional, national and global perspectives to identify and solve problems in Ancient Hindi Literature.

CO4 : Develop complex reading, writing and research skills.

4B05FHI- HINDI SAHITHYA KA ITIHAS GADYA

CO 1 : Trace the development of modern Hindi Prose from its beginning to the present day.

CO2 :Interpret the works of great literary personalities in the modern hindi prose.
CO3 : Demonstrate significant cultural and social issues presented in Modern Hindi prose.
CO4 : Understand theoretical approaches to critical reading of literary texts.

4B06FHI- PRAYOJAN MOOLAK HINDI

CO 1: Understand the meaning concept and importance of functional hindi.
CO2: Understanding various forms of functional hindi.
CO3: Understanding official language policy.
CO4: Develop official word knowledge.

5B07FHI- HINDI SAHITHYA KA ITIHAS –PADYA

CO 1: Trace the development of modern Hindi literature poetry form its beginning to the present day.
CO2: Demonstrate knowledge of literary terms, major periods, authors, genres and theories.
CO3: Develop complex reading writing and research skills.
CO4: Demonstrate through discussion and writings an understanding of significant cultural and social issues presented in mo dern Hindi Literature poetry.

5B08FHI- HINDI COMPUTING

CO1: Develop computer literacy, their basic understanding of operative systems and working knowledge of software commonly used in academic and professional environments.
CO2 : Develop knowledge on Microsoft word, power point & excel
CO3: Develop practical knowledge about Hindi typing& PDF file etc.

5B09FHI- ADHUNIK HINDI KAVITHA

CO 1:Understanding the concepts of Romantic Hindi poetry.
CO2:Understanding the socio cultural background of modern hindi poetry and the concept of modernity.
CO3:Understanding the literariness and the aesthetic aspect of contemporary hindi poetry.
CO4:Developing critical and analytical approach to poetry.

5B10FHI- BHARATHEEYA KAVYA SHASTRA

CO 1: Understand the critical practices from the past to present.
CO2: Develop a critical perspective on the historical over view of Indian literary theory.
CO3: Understand the theory and its application
CO4: Analyze literary texts from different points of view

5B11FHI- ANUVAD VIGYAN

CO 1: develop the art of translation.
CO2: Understand the importance of translation in present world with its various theories.
CO3: Understand the idea of basic principles in translation, issues faced by translators.
CO4: Understand the cultural aspects of translation.

6B12FHI- PASHCHATHYA KAVYA SHASTRA

CO 1:Understand the issues and questions raised by literary theorists.
CO2:Understand the terms and concepts employed in the discussion of literary theories.
CO3:Understand the history and evolution of western literary theory.
CO4:Develop the ability to apply different literary theories and interpretive approaches to the analisis and interpretation of specific literary works.

6B13FHI- BHASHA VIGYAN

CO 1: Understand the history of general Linguistics.

CO2: Understand core areas of language analysis including its phonology, morphology, syntax and semantics.
CO3:Develop Linguistic competence and communicative skills.
CO4: Understand the nature of language and the place of language study in society.

6B14FHI- HINDI BHASHA KI UTHPATHI AUR VIKAS

CO 1: Trace the process of beginning and growth of Hindi language.
CO2: Basic knowledge on the nature of language and place of language study in society
CO3: Get integrated view about origin and development of script.
CO4: Identifying the dialects of Hindi language family.

6B15FHI- SAMAKALEEN HINDI KAHANI

CO 1: Understanding contemporary Hindi short stories.
CO2: Understanding the techniques ofcontemporary hindi short stories.
CO3 :Analyising contemporary short stories.
CO4: Demonstrate aesthetic aspects of short stories.

6B16FHI- PARIYOJANA KARYA

CO 1: Demonstrate a depth of knowledge of Hindi Language and literature.
CO2: Demonstrate knowledge of contemporary issues in their chosen field of research.
CO3: Developing the research skill and language skill.
CO4: Demonstrate an ability to present and defend their research work to scholars

COMPLEMENTARY ELECTIVE COURSE :

1C01FHI- – HINDI PATRAKARITHA

CO 1:Understand the basic theory of journalism CO2:Understand the history of journalism in Hindi. CO3:Demonstrate the various news papers in Hindi.. CO4: Develop writing skill in Hindi media.

2C02FHI- HINDI MEDIA LEKHAN

CO 1:Understanding the history of Indian Cinema.
CO2:Develop script writing skill.
CO3:Understand about the different types of medias and its writing skill.
CO4: Develop skill in film criticism

3C03FHI- - HINDI MEIM DAFTHARI KAMKAJ

CO 1:Understand the meaning concept and importance of functional Hindi.
CO2:Understanding various forms of functional hindi and official language acts.
CO3:Understanding various forms of official letter drafting.
CO4:Develop official word knowledge

4C04FHI- HINDI MEIM COMPUTER SHIKSHA

CO 1: Understanding the development of computer.
CO2: Understanding the techniques of computer in hindi.
CO3: Demonstrate the use of computer in day today life.
CO4: Developing computer terminology in hindi.

D 01FHI -DESKTOP PUBLISHING

CO 1: Develop computer literacy, their basic understanding of operative systems and working knowledge of software commonly used in academic and professional environments.
CO2 : Develop knowledge on Microsoft word, power point & excel.
CO3: Develop practical knowledge about Hindi typing& PDF file etc.

BA ENGLISH PROGRAMME

Programme Specific Outcome

PSO 1. Understand the historical contexts behind the origin and development of English literature with a special focus on various movements and the important works belonging to such movements.

PSO 2. Understand the current methodological issues in the study of literature and apply the various reading strategies employed to selected literary as well as cultural texts.

PSO 3. Understand and apply the extended meaning of "English Literature" to various post-colonial and other writings in English.

PSO 4. Understand the basics of related disciplines like film studies, cultural studies, fine arts, women's writing, post-colonial writing, Indian writing in English, Malayalam literature and literature in other Indian languages.

PSO 4. Understand and appreciate the interdisciplinary links that literary studies have with disciplines like philosophy, history, political science, sociology, anthropology and the sciences.

COURSE OUTCOMES FOR COMMON COURSES

1A01ENG: Communicative English

1. Understand and apply the rubrics of English grammar
2. Recognize and apply the basic patterns in English vocabulary
3. Read and elicit data, information, inferences and interpretations based on a given material in English
4. Develop the ability to speak in English in real life situations
5. Elicit necessary information after listening to an audio material in English
6. Compose academic and non-academic writings including letters, paragraphs and essays on a given topic and CV's for specific purposes

1A02ENG: Readings on Kerala

1. Understand the basic facts and patterns regarding the cultural evolution of Kerala through articles, poems, stories, life writings and historical narratives.
2. Acquaint with the life and works of the illustrious leaders of Kerala Renaissance and the major events.
3. Assimilate the notion of Kerala as an emerging society and critically examine the salient features of its evolution.
4. Understand the evolution and contemporary state of the concept of "gender" with reference to Kerala
5. Understand the form and content of Kerala's struggle against "casteism" and for "secularism"
6. Develop an awareness about the ecological problems and issues in Kerala

2A03ENG: Readings on Life and Nature

1. Understand the basic themes and issues related to ecology through articles, poems, stories, life writings and historical narratives.
2. Assume ecologically friendly attitudes in events related to everyday life.
3. Identify the specific ecological problems related to Kerala.
4. Identify the major ecological movements around the world and within the country.

5. Ability to express specific opinions when confronted with ecology/development binary.
6. Identify the major or minor ecological issues happening around the student's native place.

2A04ENG: Readings on Gender

1. Understand the basic themes and issues related to gender through articles, poems, stories, life writings and historical narratives.
2 Understand the basic topics related to gender studies.
3. Understand gender as a social construct and also as a site of struggle.
4. Critically engage with certain seminal topics that have become a part of gender studies.
5. Understand the basic gender issues faced by Kerala.
6. Appreciate and use gender sensitive and politically right terms and usages in everyday life.

3A05ENG: Readings on Democracy and Secularism

1. Understand the relationship between higher education and nation building.
2.Understand the basic Constitutional values and themes through articles, poems, stories, life writings and historical narratives.
3. Evolve a deeper understanding and appreciation of the meaning of the words sovereignty, socialism, secularism and democracy in the Indian context.
4. Appreciate the relationship between higher education and the Constitutional directives regarding "scientific temper" and "the spirit of enquiry".
5. Appreciate the prevalence of "human rights" as a prerequisite for democratic living.

4A06ENG: Readings on Philosophy of Knowledge

1. Understand the basic issues related to construction and acquisition of knowledge through articles, poems, stories, life writings and historical narratives.
2. Understand the relationship between higher education and nation building.
3. Evolve a deeper understanding of disciplines, multi-disciplinary approaches, interdisciplinary approaches and the various systems of knowledge.
4. Understand knowledge as a social construct and the dynamics of paradigm shifts.
5. Understand the epistemological and ontological factors within higher education.
6.Understand logical fallacies and apply critical thinking.

COURSE OUTCOMEFOR ENGLISH CORE COURSES

1B01 ENG: Malayalam Literature in English Translation

1. Understand the word 'literature' and 'literary' in a broad and inclusive perspective by reading select literary pieces and by applying critical reading strategies.
2. Recognise and describe literary genres and its subclasses.
3. Describe with examples select literary terms and concepts.
4. Understand the basic issues related to translation and in that process develop a sensibility for native and local literatures.
5. Use English to translate and describe everyday activities, regional themes and personal narratives by reading Malayalam literature in translation.
6. Learn to read, enjoy, analyse and critically engage with select literary pieces on their own with minimum guidance.

2B02ENG: Academic Writing, Methodology and Research Project

1. Understand and apply the nuances of academic writing.

2. Understand the various methodological as well as epistemological aspects of literary studies.

3. Familiarise with the approaches to literature.

4. Choose a tentative topic for the research project to be submitted in semester six.

3B03 ENG: Old English to Medieval English Literature (500-1500)

1. Have an understanding of the contexts which produced Old English literature.

2. Read translation extracts from key texts of the Old English period.

3. Understand the key aspects of Old English language.

4. Understand the key genres, authors, texts, styles and themes of the Medieval English Period.

5. Read excerpts from the variety of writings produced during this period.

6. Understand the key aspects of Medieval English dialects.

3B04ENG: Renaissance and Restoration Literatures (1485-1780)

1. Define Renaissance literature/ Problems of definition

2. Trace the relationship between political economy, cultural history and production of arts and literature during the early modern period

3. Read specimens of major works belonging to the Renaissance period.

4. Understand the problematics of "modernisation" of Britain including the development of political parties and parliamentary democracy through the cultural productions of Restoration period

5. Identify literary narratives that deal with slave trade and colonial aspirations.

6. Understand the development of literary criticism as a meta-narrative to literature.

7. Read specimens of major works belonging to the Restoration period.

4B05ENG: The Romantic Period (1780-1832):

1. Understand the cultural history of the period and recognise the features of literary romanticism.

2. Trace the relationship between political economy, cultural history and production of arts and literature with reference to the romantic period.

3. Read specimens of major works belonging to the period.

4B06ENG: The Victorian Age (1832-1901):

1. Understand a range of Victorian literature in relation to a range of contexts including Victorian anxieties about modernity, madness, sexual transgression and disease.

2. Analyze the work of a range of Victorian writers, both canonical and less wellknown, and with a range of genres including the novel, short story and poetry.

3. Identify and discuss theoretical discourses concerning class, sexuality, gender and colonialism as these illuminate a range of Victorian texts.

4. Understand and deploy a range of terms and concepts integral to Victorian literature.

5B07ENG: The Early Twentieth Century ((1901-1939)

1. Understand the cultural, political, and stylistic protocols of modernism and its various literary manifestations.

2. Trace the relationship between political economy, cultural history and production of arts and literature

3. Read specimens of major works belonging to the period.

5B08ENG: The Late Twentieth and Twenty-First Centuries (1939- 2018)

1. Understand the cultural, political, and stylistic protocols of post-modernism and the various literary movements
2. Understand and apply the basics of the various reading strategies that emerged during the period
3. Read specimens of major works belonging to the period.

5B09ENG: Postcolonial Literatures in English

1. Understand the cultural, political, and stylistic protocols of post-modernism and the various literary movements
2. Understand and apply the basics of the various reading strategies that emerged during the period
3. Read specimens of major works belonging to the period.

5B10 ENG: Linguistics

1. Learn the theories Regarding origin, development and history of Languages.
2 Learn the cardinal concepts related to Linguistics.
3. Understand the modern directions In Linguistic Studies.
4. Understand the basic concepts of Linguistics.
5. Understand the various Levels of Linguistic Analysis (Phonology, Morphology Etc.)
6. Apply Linguistics to Different areas of activities like ELT , Translation etc.

6B11ENG: Project

1. Learn and apply prescribed documentation styles and methodological formalities.
2. Understand and apply the mechanics of writing.
3. Critically engage with a literary theme or topic and generate ideas while gathering, evaluating and organising existing materials.
4. Understand the basic formalities regarding research in humanities.

6B12ENG: Literary Theory

1. Understand the basics of various theoretical positions in literary and culture studies.
2. Apply specific theoretical insights into the study of specific works of art as well as other cultural articulations.
3. Understand the ideological assumptions underlying common-sense notions and canon formation.

6B13ENG: Women's Writing

1. Understand women's writing as a specific genre.
2. Appreciate the variety in women's literature and the correlation between such variety and specific socio-political contexts.
3. Understand the various dialogic positions within women's writing

6B14ENG: Indian Writing in English

1. Understand Indian Writing in English as a specific genre based on certain common sociopolitical contexts
2. Understand the various dialogic positions within Indian Writing in English.
3. Read specimens of major works belonging to the genre of Indian Writing in English

4. Understand the regional diversities and thematic plurality of IWE

6B15ENG: Film Studies

1. Understand the major Movements, Genres and Masters in the history of Cinema and how cinema connects with history, politics, technology, psychology and performance.
2. Understand the nature of representation on screen and how class, race, caste, ethnicity and gender are represented.
3. Analyze and appreciate film as art form thorough close readings of films.

5D01 (1)ENG: English for Competitive Examinations

• To familiarise students with the language items required to take competitive examinations at various levels

• To acquaint the students with the basics of English grammar

• To enable the students to enrich their vocabulary

• To provide opportunities for the students to improve their listening and reading comprehension skills • To familiarise the students with the questions that are commonly asked in various interviews and to help them frame the desirable responses

BCom PROGRAMME

Programme Specific Outcome

1. Understand the concepts and techniques of Commerce and its application in business environment.
2. Conceive the ideas on entrepreneurship and develop the skill for setting up and management of business organizations
3. Develop skills and abilities to become competent and competitive in the business world.
4. Develop the competency to take wise decisions at personal and professional level.
5. Appraise the impact of other disciplines on the working business.

Course Outcome

COURSE TITLE: CORE COURSE I MANAGEMENT CONCEPTS AND PRINCIPLES

CO1:- Understand the evolution of management thoughts, concept of management, scope and its functions

.CO2:- Familiarize with current management practices.

CO3:- Understand the importance of ethics in business.

CO4:- Acquire knowledge and capability to develop ethical practices for effective management.

CO5:- Describe the emerging trends in management.

COURSE TITLE: CORE COURSE II : FUNCTIONAL APPLICATIONS OF MANAGEMENT

CO 1: Describe nature and scope of financial management and the elements in the management of finance

CO 2: Enumerate marketing management and its different aspects

CO 3: Explain Human Resources Management and the activities involved in it

CO 4: Understand the modern global marketing trends and its challenges

COURSE TITLE: CORE COURSE III : ADVANCED ACCOUNTING

CO 1. Understand the theoretical and practical knowledge of the basics of accounting.

CO 2. Acquire the knowledge of accounting for royalty, Consignment and Hire Purchase

CO 3. Imbibe the accounting concepts of Inland Branch Business.

CO 4. Comprehend the procedure for determining profit and financial position from incomplete records

COURSE TITLE: CORE COURSE IV : FINANCE I – FINANCIAL MANAGEMENT

CO 1: understand the concept, importance and techniques of capital budgeting.

CO 2: gain knowledge about sources and uses of working capital and significance of working capital management.

CO 3**:** explain optimum capital structure, theories of capital structure, distinguish between financial and operating leverage.

CO 4: describe the concept of cost of capital and compute the component cost of capital and weighted average cost of capital.

CO 5**:** differentiate the types of dividend, explain dividend policy and factors affecting dividend policy

COURSE TITLE: CORE COURSE V : CORPORATE ACCOUNTING

CO 1: Understand the mode of presentation and understanding of financial reporting .

CO 2: Learn the accounting procedure for recording transaction relating to the issue and redemption of shares and debentures.

CO 3: Imbibe the techniques of recording transactions in respect of amalgamation, reconstruction and liquidation of companies..

CO 4: Understand the concept of IFRS and Ind AS

COURSE TITLE: CORE COURSE VI : FINANCE II – INVESTMENT MANAGEMENT

CO 1: understand the concept of investment and risk

CO2: explain the different types of securities and their schemes

CO 3: develop a thorough knowledge about security market, its participants and factors affecting security market

CO 4: conduct fundamental and technical analysis of investments in the security market

CO 5: discuss the application of Portfolio Theory, process of portfolio management and measurement of portfolio performance.

COURSE TITLE: CORE COURSE VI1: BUSINESS RESEARCH METHODOLOGY

CO 1: Understand the fundamental aspects of research in business

CO2: identify and define research problem

CO 3: formulate research plan

CO 4: understand various methods of collecting data

CO 5: prepare research report themselves

COURSE TITLE: CORE COURSE VIII : INCOME TAX LAW AND PRACTICE

CO 1 Define the basic concepts in Income tax, explain its evolution

CO 2 Determine the residence and incidence of Tax

CO 3 Understand the incomes exempt from tax of an individual

CO 4 Compute income under different heads of income

COURSE TITLE: CORE COURSE IX: COST ACCOUNTING

CO 1: Explain the nature, scope, objectives and limitations of costing
CO 2: Identify the elements of cost and describe the methods of their ascertainment and control
CO 3: Explain the various methods of costing and their suitability for different industries
CO 4: Ascertain the cost of production of products and jobs

COURSE TITLE: CORE COURSE X : BANKING PRINCIPLES AND OPERATIONS

CO 1: Explain banking and describe the different types of banks and the functions of commercial bank
CO 2: Narrate the role of RBI in the credit control, promotion and regulation of monitory system
CO 3: Describe the relations ship between banker and customer and the procedure for opening and operating the account
CO 4 : Understand the modern trends and technology used in banking

Course Title: CORE COURSE XI : FINANCE III – GOODS AND SERVICE TAX

CO 1: understand the basic concept of GST.
CO 2: Explain how GST is levied and collected.
CO 3: describe IGST, its levy and collection
CO 4: femiliarise with the preparation of invoice and filing of return under GST

Course title:CORE COURSE XII : FINANCIAL MARKETS AND SERVICES

CO 1: understand the financial system and its constituents
CO2: familiarise with the activities taking place in the financial markets
CO 3: Appraise the various financial services available in the financial markets
CO 4: acquire knowledge about financial derivatives and their features

Course Title: CORE COURSE XIII : MANAGEMENT ACCOUNTING

CO 1. understand the fundamental concepts of management accounting.
CO 2. acquire analytical skills associated with the interpretation of accounting reports
CO 3. apply management accounting concepts in real life situations.
CO 4. develop judgmental skills associated with the use of accounting information in decision making.
CO 5. understand the use of marginal costing and budgetary control to plan and control cost and profit.

Course Title: CORE COURSE XIV: AUDITING AND CORPORATE GOVERNANCE

CO 1: understand the term auditing, its concept, principles, procedures and requirements needed for Auditing in accordance with current legal requirements and professional standards.
CO 2: familiarize with the various aspects of audit consisting of internal check, vouching, verification and valuation of assets and liabilities
CO 3: understand the appointment, rights, duties and the liabilities of an auditor.
CO 4: explain the concept of Corporate Governance and its aspects

Course Title: CORE COURSE XV: INCOME TAX AND GST

CO 1: Compute total income and determine the tax liability of an individual and partnership firm, company and cooperative society
CO 2: Describe the income tax authorities, their powers and assessment procedure

CO 3: Explain the procedure regarding deduction of tax at source, advance tax, refund, penalties and prosecution
CO 4: Describe Goods and Service Tax, its levy and collection

Course Title: CORE COURSE XVI : FINANCE IV – CORPORATE TAX PLANNING

CO 1: understand the concept of tax planning and determine the tax liability of companies
CO 2: understand the methods of reducing tax liability through proper tax planning
CO 3: take financial and managerial decisions after considering the impact of direct tax laws

Course Title: CORE COURSE XVII: PROJECT

CO 1: understand the method of carrying out a project
CO2: undertake project work independently

Course Title: GENERAL AWARENESS COURSE I : BUSINESS STATISTICS AND BASIC NUMERICAL SKILLS

CO 1: Define statistics and explain its importance, scope, applications and limitations
CO 2: Understand the basic knowledge of statistical techniques, which are applicable to business.
CO 3: understand basic concepts in mathematics, which are applied in the managerial decision making.
CO 4: Develop the basic mathematical skill needed for analyzing numeric problems related to business

Course Title: GENERAL AWARENESS COURSE II : ENTREPRENEURSHIP DEVELOPMENT

CO 1**:** Identify the characteristics of an entrepreneur
CO 2: describe the importance of entrepreneurs in the economic developmet of a nation
CO 3: identify the different types of entrepreneurs
CO 4: to strengthen their skill and quality as an entrepreneur

Course Title: GENERAL AWARENESS COURSE III : GENERAL INFORMATICS SKILLS

CO 1: Explain the Fundamentals of Computers the use of computers in day to day application
CO 2: Up to date and expand the basic informatics skills necessary in the emerging knowledge society
CO 3: Effectively utilize the digital knowledge resources for their studies
CO 4: State the areas where IT can be used effectively
CO 5: Perform accounting by using the appropriate accounting packages

Course Title: GENERAL AWARENESS COURSE IV : ENVIRONMENTAL STUDIES AND DISASTER MANAGEMENT

CO 1: Understand the components of environment and need for the protection of environment
CO 2: Understand the effect of pollution on environment and the ways of protecting the environment
CO 3: Explain the social issues relating to environmental pollution
CO 4: Clearly understand the various environmental hazards and the ways of managing disaster.

Course Title: COMPLEMENTARY COURSE I: QUANTITATIVE TECHNIQUE FOR BUSINESS DECISIONS

CO 1:- Acquaint with the basic statistical tools, which can be applied in business and economic situations.

CO 2:- Develop knowledge in quantitative techniques, which help in tackling various problems for modern business.

CO 3:- Understand and solve problems in probability, correlation and regression.

CO 4:- Understand the effect of trend and seasonal variations on business.

CO 5:- Familiarize with the testing of hypothesis.

Course Title: COMPLEMENTARY COURSE II: BUSINESS REGULATORY FRAMEWORK

CO 1: Understand the nature of contracts and the essential elements of a valid contract

CO 2: Explain the difference between a valid contract and a void contract

CO 3: Understand the breach of contract and remedies available for a breach of contract

CO 4: Understand various kinds of special contracts like indemnity, guarantee, bailment and agency contract

Course Title: COMPLEMENTARY COURSE III: BUSINESS ECONOMICS

CO 1**:** Understand the concept of economics and its use in business

CO 2: Understand the concept of demand, elasticity and demand forecasting

CO 3: Understand production function and law of production

CO 4: Understand the methods of determining price of a product

CO 5: Explain the methods of computing national income.

CO 6: Conceive the developmental issues of Indian economy and Kerala economy

Course Title: COMPLEMENTARY COURSE IV: CORPORATE LAW AND BUSINESS REGULATIONS

CO 1: Understand the provisions of Companies Act 2013

CO2: Describe the procedure for the formation, registration and winding up of the company

CO 3: Explain various kinds of companies and the authorities of companies in India

CO 4: Understand the management and administration of Companies

Course Title: GENERIC ELECTIVE COURSE I: BASIC ACCOUNTING

CO 1: describe the basic accounting concepts

CO 2: record the business transactions in the proper books of accounts

CO 3: prepare financial statements of a sole trading concern

BBA PROGRAMME

The goal of the Bachelor of Business Administration (BBA) program is to prepare students for successful business careers in a global economy. This is achieved by providing students with the knowledge, skills and experiences needed to meet the challenges and opportunities of a global business market characterized by complexity, uncertainty, and diversity.

Specifically, the BBA Program strives the following:

General Learning Outcomes are not discipline specific but relate to generic skills that allow for professional and personal growth outside of a formal educational setting. The BBA program will:

- provide students with a broad range of managerial capabilities, the capacity for critical thinking, communication and problem-solving skills, legal and ethical behaviour
- prepare graduates for diverse careers in global management, administration and entrepreneurship through a well -rounded business education with a focus on global business operations, emerging markets and technology -enabled organizations
- expose students to both general and specialized curriculum content through core courses and complementary courses

Interpersonal Competence-the knowledge, skills and attributes required to effectively manage one-self and relationships with others within organizations. Upon completion of the program, the individual should:

- have self-knowledge and the ability to apply this knowledge to enhance effectiveness;
- understand and apply communication models and effective communication skills, at the individual and group levels
- understand and apply leadership skills at the individual and group levels
- understand and apply team-based knowledge and skills
- understand and apply conflict management and negotiation skills required to achieve individual and institutional objectives.

Self directed and lifelong learning -the knowledge, skills and attributes needed to live and work in a diverse world. Upon completion of the program, an individual should possess:

- the ability to identify, analyze and recommend appropriate actions given international influences, issues, and situations at the industry, business and individual levels
- an understanding of multicultural business environments, protocols, ethics and management practices required within the global context
- understanding of cultural knowledge including cultural self-knowledge
- ability to apply the skills of critical thinking, conflict resolution, teamwork, leadership and cross cultural communication (verbal and nonverbal).

Critical Thinking and Analytical Competence-the knowledge, skills, and attributes required to conceptualize, apply, analyze, synthesize, evaluate information from a variety of sources, and form substantive recommendations. Upon completion of the program, the individual should possess:

- the capacity to analyze, evaluate and interpret data;
- the ability to select and/or develop appropriate decision making models and generate outcome scenarios
- the skills to apply both rational and creative problem solving techniques at the individual and group levels
- the ability to find, gather and source pertinent data, including the ability to discriminate between and select from various sources using the criteria of authority, currency, and fitness for purpose
- the ability to recognize and appreciate arguments and logic as flawed or sound
- the ability to create viable recommendations based on the analyses, and devise practical implementation strategies
- the capacity to identify the worth of one's own experience.

Communication Competence-the knowledge, skills, and attributes needed to convey meaning effectively using verbal, written or other means of expression. Upon completion of the program, the individual should possess:

- proficiency in, and appreciation of the importance of, grammar, spelling, and syntax;
- appreciation of and the ability to apply the appropriate choice of format and communications medium
- the ability to recognize and use the linguistic register most appropriate to the audience of a communication
- the ability to edit and rewrite
- the ability both to introduce and to summarize
- the ability to communicate orally in a variety of settings; to moderate, and to chair a discussion or meeting and
- the ability to create communication that adheres to both academic and business standards.

Professional Integrity and Ethics- means being honest and forthright in all professional dealings. It means always acting in accordance with the core values of your chosen profession. Professional integrity means always setting the highest ethical and legal standards for all of your actions. Upon completion of the program, an individual should possess:

- an appreciation of the diversity of behaviour in professional practice situations
- knowledge of appropriate codes of ethics, standards, practices and the related consequences associated with transgression
- knowledge of, and disposition to display, social responsibilities, environmental stewardship, and corporate citizenship

Therefore after completing the program, students will be able to appreciate and critically evaluate consequences of key decisions made within a profitability and ethical perspective.

Programme Specific Outcomes

- **PSO1:** To enable students to understand the general principles and practices of Management and familiarize the students with the current management practices.
- **PSO2:** To analyze business priorities in the changing economic and environmental conditions.
- **PSO3:** To acquaint the students with the basic theories of entrepreneurship
- **PSO4:** To give an overview of the ethical aspects of business and corporate social responsibility
- **PSO5:** To enable the students for acquiring basic knowledge in business research methods and to develop basic skills in them to conduct survey research and case studies
- **PSO6:** To enlighten the students on International Business Environment for studying the impact of globalization on Indian Industry.
- **PSO7:** To provide the students an understanding about the managerial use of data for planning, control and decision making

- **PS08:** To give a conceptual understanding of Marketing Management, Operations Management, Financial Management, Human Resource Management and Disaster Management in organizations.
- **PS09:** To apply the skills of critical thinking, conflict resolution, team work, leadership, communication and entrepreneurship in shaping their career.

Course Outcomes

- **CO1:** To understand the process of Business Management
- **CO2:** To use economic reasoning to problems of business
- **CO3:** To acquaint the applications of communication skills in the business world
- **CO4:** To understand the scope and key issues involved in managing e-commerce initiatives
- **CO5:** To increase students ability to apply proper mathematical tools to specific business situations
- **CO6:** To provide knowledge about Accounting principles and their applications in different business situations
- **CO7:** To get students acquainted to the design aspects of operations and materials management
- **CO8:** To acquaint students with various laws, forces and regulatory measures governing business operations in India.
- **CO9:** To familiarize the students with the basic statistical tools used to summarize and analyze quantitative information for decision making
- **CO10:** To familiarize the students with the use of quantitative techniques in managerial decision making.
- **CO11:** To acquaint students with Marketing principles and practices and to understand the process of Marketing in a business firm
- **CO12:** To help the students to acquire conceptual knowledge of the fundamentals of the Corporate Accounting and the techniques of preparing the Financial Statements.
- **CO13:** To familiarize the students with the fundamental principles of financial management and to equip them with the tools of effectively managing the finance of an enterprise.
- **CO14:** To enable the students for acquiring basic knowledge in business research methods and to develop basic skills in them to conduct survey research and case studies
- **CO15:** To acquaint students with methods and techniques of cost and management accounting at an advanced field for managerial decision making.
- **CO16:** To give a conceptual understanding of Human Resource practices in organisations
- **CO17:** To give the students an exposure to the dynamics of banking business environment and enable them to analyze business priorities in the changing banking industry.
- **CO18:** To familiarize the students with basic concepts of OB and to enhance their understanding of the interaction between individuals and the organisation

- **CO19:** To understand effective methods and strategies required for retail management.
- **CO20:** The course intends to provide a theoretical frame work of strategic management and to develop an understanding about the strategic process and their impact on a firm.
- **CO21:** To give an overview of the conceptual aspects of Capital Markets and Investment Management
- **CO22:** To enlighten the students on International Business Environment for studying the impact of globalization on Indian Industry.
- **CO23:** To enable the students to understand the essentials of planning an event & to study the concept and significance of event management
- **CO24:** To provide the students an understanding about the managerial use of data for planning, control and decision making

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