COURSE OUTCOMES

Course Code	Course Name	CO Number	Course Outcome
BACHELORS' DEGREE PROGRAMS			
CHEMISTRY			
Semester I			
DSC – IA: UCHM 111	GENERAL CHEMISTRY-I	CO1	To Study Atomic Structure, Chemical Bonding and Molecular Structure
		CO2	To Study the Fundamentals of Organic Chemistry and Stereochemistry
		CO3	To Study the Gaseous state
DSC 3A	AL CHEMISTRY-1-PR-UC	CO1	To understand volumetric analysis and chromatography
AECC-1	PUBLIC	PADM 111	To Study the rules and regulation
Semester II			
DSC-1B:UCHM 121	GENERAL CHEMISTRY-II	CO1	To Study Chemical Energetics.
		CO2	To Study the Chemical Equilibrium, Ionic Equilibria
		CO3	To Study the Hydrogen, Hydrides, and S-block elements
		CO4	To Study the Aliphatic Hydrocarbons, Aromatic Hdrocarbons
AECC-2E-NVS 121	Environmental Studies	CO1	To study ecosystem
		CO2	To study natural resources
		CO3	To study biodiversity and conversion
		CO4	To study pollution,policies and practices
Semester III			
DSC-1C-UCHM	Physical Chemistry-I	CO1	To Study the Solid State and X-ray diffraction studies.
		CO2	To Study the Chemical Kinetics
		CO3	To Study the Catalysis, Adsorption and Photochemistry
		CO4	To Study the Dilute Solutions and Colligative Properties.
		CO5	To Study the Phase Equilibrium.

DSC-2C- UCHM	Inorganic Chemistry - I	CO1	To Study Nuclear Chemistry
		CO2	To Study the Principles of Qualitative Inorganic Analysis
		CO3	To Study the Theories of Acids, Bases & Non-aqueous solvents
		CO4	To Study the P-Block Elements
		CO5	To Study the Dilute Solutions and Colligative Properties.
DSC-4C-UCHM-	PHYSICAL AND INORGANI	CO1	To study physical chemistry and inorganic compounds identification
UCHM 235	BSAIC ANALTICAL CHEMISTRY	CO1	To study Laboratory Glassware
		CO2	To study principles of volumetric analysis and calculations
Semester IV			
DSC -ID-	PHYSICAL	CO1	To Study the Electrochemistry
		CO2	To Study the Elementary Quantum Mechanics
		CO3	To Study the molecular spectroscopic methods: microwave, IR, Raman and electronic spectroscopy.
		CO4	To Study the physical properties and molecular structure.
DSC-2D-UCHM	ORGANIC	CO1	To Study about the Alkyl and Aryl Halides
		CO2	To Study about the Alcohols and Phenols
		CO3	To Study about the Carbonyl Compounds
		CO4	To Study about the Organic Compounds of Nitrogen
		CO5	To Study about the Heterocyclics
SEC-2-UCHM-247	BSAIC SKILLS FOR	CO1	To study planing and key aspects of business.
Semester V			
DSC-1E-UCHM351	INORGANIC	CO1	To Study the Chemistry of d-block elements
		CO2	To Study the Lanthanides and Actinides
		CO3	To Study the basics of Co-ordination Compounds and applications
		CO4	To Study the theories of coordination compounds and their applications
DSE-1A-	ANALYTICAL	CO1	To Study the gravimetric method of analysis

		CO2	To Study the colorimetric method
		CO3	To Study the radiochemical and thermo analytical method
		CO4	To learn Polorography and solvent extraction methods
		CO5	To learn Chromatographic methods
DSE-2A-UCHM-356	BIOINORGANIC CHEMISTRY & POLYNUCLEAR	CO1	To introduce the chemistry of 3d metals.
		CO2	To study the organometallic compounds.
		CO3	To learn the Bio-Inorganic chemistry.
		CO4	To learn the polynuclear and heteronuclear aromatic compounds
		CO5	To study active methylene compounds
SEC-3-UCHM-359	Pharmaceutical	CO1	To effectively impart knowledge about various diseases and theirtreatment.
		CO2	To know about the different types of drugs with examples.
		CO3	To learn about the importance of Indian medicinal plants.
		CO4	To learn about HIV and its treatment & prevention
GE-1-UCHEM A02	CHEMISTRY IN	CO1	To study food additive
		CO2	To study soap and detergent action and manufacture
		CO3	To study different types of cosmatics
		CO4	To study plasics and its different typres
DSC – 1A: UCHEM A	CHEMISTRY – I	CO1	To Study classification, nomenclature and some fundamentals of organic chemistry
		CO2	To Study isomerism in organic compounds and conformational analysis
		CO3	To Study the stoichiometry and some basic concepts of chemical equilibrium
		CO4	To Study radioactivity and its applications
Semester-VI		CO5	To study carbohydrates
DSC-1F-UCHM-	ORGANIC	CO1	To study the Molecular Rearrangements
		CO2	To Study the Natural Products
		CO3	To Study thr Carbohydrates
		CO4	To Study Aminoacids,Peptides,Proteins and Nucleric acids
		CO5	To Study the Application of Spectroscopy to Simple Organic Molecules
DSE-1B-UCHM-	POLIMER	CO1	To learn the classification of polymers.
		CO2	To learn the Polymerization reactions

		CO3	To learn the properties of polymers
		CO4	To learn polimerization techniques and polymer degration
		CO5	To learn the chemistry of commercial polymers
DSE-2B-UCHM-365	INDUSTRIAL CHEMICALS AND	CO1	To learn about industrial gases and inorganic chemicals
		CO2	To learn about air pollution
		CO3	To learn about water pollution
		CO4	To learn about noise pollution and radioactive pollution
		CO5	To learn about environment and energy
DSC-2F-UCHM-360	ORGANIC CHEMISTRY	CO1	Organic qualitative analysis and organic preparations
SEC-4-UCHM-343	FUEL CHEM	CO1	To learn about energy sources and coal
		CO2	To learn about lubricants
		CO3	To learn about lubricants
DSC-3A-2-UCHEM	CHEMISTRY - II	CO1	To study thermodynamics and chemical kinetics
		CO2	To study chromatography and solid state
		CO3	To Study amino acids, proteins and enzymes
		CO4	To Study polymers and dyes
		CO5	To Study nucleic acids and drugs
DSC4A-UCHEM	CHEMISTRY	CO1	Organic qualitative analysis and organic preparations
		CO2	Separation of mixture
GE-2-UCHEM A02	CHEMISTRY IN	CO1	
BCOM			
BCGN 111	FINANCIAL ACCOUNTING	CO – 1	Understand the accounting principles, concepts and convention
			and to identify various subsidiary books in accountancy.
		CO – 2	Analyse what bank reconciliation statement is and understand
			about rectification of errors and suspense account

		CO – 3	Analyse the essentials of bill of exchange and its accounting treatment.
		CO – 4	Understand the various methods of calculating depreciation.
BCGN 112	BUSINESS LAW	CO – 1	Understand the law and procedure of the contracts
		CO – 2	Analyse performance and the remedies
		CO – 3	Get clear idea about the guarantee of the parties under the contract
		CO – 4	Get an idea about various kinds of agencies and bailment and pledge
PADM 113	PUBLIC ADMINISTRATION	CO-1	To understand the nature and scope of Public Administration
		CO-2	To appreciate the methodological pluralism and synthesizing nature of knowledge in Public Administration :To comprehend the changing paradigms of Public Administration;
BCGN 121	BUSINESS MANAGEMENT	CO – 1	Develop knowledge about management
		CO – 2	Have a better understanding of planning and decision making
		CO – 3	Give an idea about organisation, departmentation and delegation
		CO – 4	Familiarise with directing, motivation theories, communication process and leadership
BCGN 122	COMPANY LAW	CO – 1	Understand company formation and capital subscription
		CO – 2	Describe company management, Duties, Rights and Liabilities.
		CO – 3	Appraise the Essentials of valid meeting
		CO – 4	Analyse various kinds of meeting and statutory Report
		CO - 5	Analyse and Evaluation of Directors meeting
BCGN 232	BUSINESS STATISTICS	CO – 1	Explain the primary concepts of statistics, data collection, sampling and tabulation
		CO – 2	Understand the concepts of measures of central tendency and solve problems
		CO – 3	Understand the various measures of dispersion and solve related problems
		CO – 4	Develop the ability to solve problems in correlation and regression analysis
BCGN 233	ACCOUNTING- I	CO – 1	Understand the objectives and functions of management accounting
		CO – 2	Evaluate the financial position by using ratios
		CO – 3	Gain knowledge about the preparation of fund flow statement
		CO – 4	Evaluate the financial position of a concern through cash flow statement
	ADVANCED ACCOUNTANCY	CO – 1	Understand the procedure for preparing capital accounts

		CO – 2	Understand and analyse the preparation of accounts on admission of partners
		CO – 3	Prepare accounts on retirement, death of partners
		CO – 4	Clarify the procedure for Dissolution and Insolvency
		CO - 5	Analyse the amalgamation, sale to a company and piece meal distribution
BCGN 241	ACCOUNTING - II	CO – 1	Understand the objectives and functions of management accounting
		CO – 2	Evaluate the financial position by using ratios
		CO – 3	Gain knowledge about the preparation of fund flow statement
		CO – 4	Evaluate the financial position of a concern through cash flow statement
BCGN 242	COST ACCOUNTING	CO – 1	Understand the importance of costing in companies
		CO – 2	Gain knowledge about losses in process costing
		CO – 3	Learn about the applications in Marginal Costing
		CO – 4	Understand the concepts of budgeting and budgetary control
	INTERNATIONAL BUSINESS	CO – 1	Understanding concepts of international trade and significance of Trade protection
		CO – 2	Explain the effect of balance of trade on domestic economy
		CO – 3	Understand export procedure and discuss the documents required for export
		CO – 4	Understand import procedure discuss the documents required for import
BCGN 243	INCOME TAX	CO – 1	income
		CO – 2	Identify the residential status and incidence of tax and solve problems
		CO – 3	Compute taxable income from salary
		CO – 4	Compute taxable income from house property
		CO - 5	Understand the meaning of business and profession and compute taxable income
BCGN 244	ARITHMETIC SKILLS	CO – 1	Develop an idea about number systems and equations
		CO – 2	Familiarise with the laws of indices and logarithm and their application
		CO – 3	Know the various concepts like distance, slope, equation of straight line and their application in business
		CO – 4	Have a clear idea about matrices properties and solve problems
BCGN 351	SKILLS	CO – 1	Understand the components of computer
		CO – 2	Provide the knowledge about an overview of E- Commerce and E-business
		CO – 3	Describe the consumer oriented E-commerce applications

		CO – 4	Appraise the Electronic Data Interchange and its pre-requisites
BCGN 352	FINANCIAL MANAGEMENT	CO-1	Demonstrate an understanding of the overall role and importance of the finance function..
		CO-2	Demonstrate basic finance management knowledge. Communicate effectively using standard business terminology
BCGN 354	PRINCIPLES OF MARKETING	CO – 1	Understand the Modern marketing concepts
		CO – 2	Providing knowledge about marketing mix, segmentation, targeting and positioning.
		CO – 3	Get clear idea of product planning, Diversification, Elimination and pricing strategies.
BCGN 355	CONSUMER BEHAVIOUR	CO – 1	Gain knowledge about different types of consumers
		CO – 2	Gain knowledge about different types of consumers
		CO – 3	Understand the procedure to file a complaint and the steps to handle complaints
BCGN 356	CORPORATE ACCOUNTING	CO – 1	Understand the procedures for the issue of shares.
		CO – 2	Prepare Financial Statements of Companies
		CO – 3	Calculate purchase consideration in case of Amalgamation, Absorption and reconstruction.
		CO – 4	Ascertain profit or loss prior to incorporation by applying various methods
BCGN 357	ECONOMICS	CO-1	Explain what economics is and explain why it is important
			Explain how economists use economic models
		CO-2	Use mathematics in common economic applications
			Use graphs in common economic applications
BCGN 361	ENTREPRENEURIAL SKILLS	CO – 1	Understand the functions of entrepreneur and its qualities
		CO – 2	Understand various dimensions of entrepreneurship
		CO – 3	Express the contemporary role models in Indian Business
		CO – 4	Learn the procedure for preparing project appraisal and report
BCGN 363	ESSENTIALS OF E-COMMERCE	CO-1	Impart the students with higher level knowledge and understanding of contemporary trends in e-commerce and business finance

		CO-2	. To provide adequate knowledge and understanding about E-Com practices to the students.
BCGN 364	AUDITING	CO – 1	Gain knowledge about auditing, audit programmes, working papers and preliminaries before audit.
		CO – 2	Analyse about implementing internal check and internal control in concerns.
		CO – 3	Understand the various aspects of vouching.
		CO – 4	Learn how to verify and value various assets and liabilities
		CO - 5	Evaluate the traits of Company Auditor and how to draft Auditors Report.
BCGN 366	HUMAN RESOURCE MANAGEMENT	CO – 1	Understand the objectives, scope, functions and environment of Human Resource Management.
		CO – 2	Understand manpower planning, components of a job study and selection process
		CO – 3	Evaluate the need as well as areas of training.
		CO – 4	Understand the significance of Industrial relations , disputes and settlement
BCGN 367	INDIAN ECONOMY	CO-1	The course aims to provide an understanding of Money and the Classical and Keynesian definitions and motives for holding money..
		CO-2	The course prepares the students with a theoretical base on the evolution of money and deeper insights into the utility of money in different macroeconomic frameworks
HISTORY			
Semester-I			
DSC-1A	**story of India up to 650 C**	CO 1	To make the students learn the Sources of Early Indian History
		CO 2	To make the students learn the Vedic Period
		CO 3	To make the students learn the Mauryan Empire
		CO 4	To make the students learn Post- Mauryan Period
		CO 5	To make the students learn Gupta Empire
DSC-2A	**luction to Ancient Civiliz**	CO 1	Learners will be able to understand Mesopotamian Civilization
		CO 2	Learners will be able to understand Egyptian Civilization
		CO 3	Learners will be able to understand The Babylonian Empire

		CO 4	Learners will be able to understand Chinese civilization
		CO 5	Learners will be able to understand Greek and Roman civilizations
AECC-1	**uction to Public Adminis**	CO 1	This would help them obtain a suitable conceptual perspective on Public
		CO 2	In addition, the course introduces to students, the growth of such institution devices as to meet the need of changing times
		CO 3	The course also aims to in still and emphasizes the need of ethical seriousness in contemporary Indian public administration within the Constitutional framework.
			Semester-II
DSC-1B	**tory Of India 650 –1526 (	CO 1	Learners will be able to understand India on the Eve of Arab Invasion
		CO 2	Learners will be able to understand the Mamluk Sultans
		CO 3	Learners will be able to understand Timur Invasion
		CO 4	Learners will be able to understand Establishment of Vijayanagara Kingdom
		CO 5	Learners will be able to understand Administration of Delhi Sultanate-
DSC-2B	**e Ages In Europe 476- 14**	CO 1	Learners will be able to understand the Causes for the decline of the Roman Empire
		CO 2	Learners will be able to understand Feudalism
		CO 3	Learners will be able to understand Papacy
		CO 4	Learners will be able to understand Medieval Contacts:
		CO 5	Learners will be able to understand Islam and Europe
AECC-II	**Environmental Studies**	CO 1	sustainability;
		CO 2	Analyse various projects and initiatives with respect to ecosystem restoration;
		CO 3	Interpret significance of carbon footprints;
		CO 4	Describe the environmental issues and their possible repercussions on the plant in the next few decades;
		CO 5	Summarize the green strategies and policies adopted by various business entities to preserve the environment.
			Semester-III

DSC-1C	**tory Of India 1526-1707**	CO 1	Learners will be able to understand Babur's Conquests and Founding of the Mughal Empire
		CO 2	Learners will be able to understand Akbar
		CO 3	Learners will be able to understand Shajahan- conquests - War of succession-
		CO 4	Learners will be able to understand Socio- Economic conditions
		CO 5	Learners will be able to understand Sikhism- Rise of Sikh Militancy
DSC-2C	**ory Of Europe 1453 –178**	CO 1	Learners will be able to understand Fall of Constantinople
		CO 2	Learners will be able to understand Reformation–Counter Reformation- Ignatius Loyola
		CO 3	Learners will be able to understand Geographical Discoveries
		CO 4	Learners will be able to understand Rise of Nation States
		CO 5	Learners will be able to understand Louis XVI and Europe on the Eve of French Revolution
SEC-1	**roduction To Human Rig**	CO 1	Learners will be able to understand Universal Declaration of Human Rights
		CO 2	Learners will be able to understand Civil and political Rights
		CO 3	Learners will be able to understand Contemporary issues in Human Rights
		CO 4	Learners will be able to understand National Human Rights Commission (NHRC)
Semester-IV			
DSC-1D	**tory Of India 1707- 1857**	CO 1	Learners will be able to understand Disintegration of Mughal Empire
		CO 2	Learners will be able to understand Eighteenth Century India
		CO 3	Learners will be able to understand English expansion in India
		CO 4	Learners will be able to understand Colonial Construction of India
		CO 5	Learners will be able to understand The Great Revolt of 1857

DSC-2D	**ory Of Europe 1789 –187**	CO 1	Learners will be able to understand French Revolution
		CO 2	Learners will be able to understand Congress of Vienna 1815
		CO 3	Learners will be able to understand The Eastern Question
		CO 4	Learners will be able to understand Paris Commune
		CO 5	Learners will be able to understand Unification of Italy and Germany
HIS 243	**Indian Constitution**	CO 1	Learners will be able to understand Indian Constitution
		CO 2	Learners will be able to understand Indian Executive
		CO 3	Learners will be able to understand Indian Legislature
		CO 4	Learners will be able to understand Relation between the Union and States
Semester-V			
HIS 351	**tion To The Study Of Arc**	CO 1	Learners will be able to understand Definition & scope of Archaeology
		CO 2	Learners will be able to understand Relationship of Archaeology with other disciplines History and Anthropology
		CO 3	Learners will be able to understand History of Archaeology
		CO 4	Learners will be able to understand Important Archaeological sites in India Palaeolithic sites
HIS 352	**tory Of India 1858- 1947**	CO 1	Learners will be able to understand Queen's Proclamation
		CO 2	Learners will be able to understand Rise of National Consciousness
		CO 3	Learners will be able to understand Home Rule Movement
		CO 4	Learners will be able to understand Non-Cooperation Movement
		CO 5	Learners will be able to understand Rise of Communalism
HIS353	**ry Of The World 1871- 19**	CO 1	Learners will be able to understand Militarism in Germany
		CO 2	Learners will be able to understand First World War
		CO 3	Learners will be able to understand Nazism in Germany and Hitler

		CO 4	Learners will be able to understand Break Down of Collective Security
		CO 5	Learners will be able to understand Birth of UNO-
HIS 356	**ory Of China 1839 –1950**	CO 1	Learners will be able to understand Early relations with the West
		CO 2	Learners will be able to understand First Sino-Japanese war 1894-95
		CO 3	Learners will be able to understand TheManchu Reform programmes
		CO 4	Learners will be able to understand China and the First World War
		CO 5	Learners will be able to understand China and II World War
HIS 357 a	**Of Pondicherry Upto 16**	CO 1	Learners will be able to understand Sources for the History of Pondicherry -
		CO 2	Learners will be able to understand Nomenclature of Pondicherry
		CO 3	Learners will be able to understand History as Gleaned from the Mulanathar
		CO 4	Learners will be able to understand Vedic College at Bahur
			Semester-VI
HIS 361	**luction To Indian Archit**	CO 1	Learners will be able to understand Harappan architecture and Buddhist architecture
		CO 2	Learners will be able to understand Gupta and Chalukiyan architecture; Pallava
		CO 3	Learners will be able to understand Chola architecture, Hoysala and Vijayanagara architecture
		CO 4	Learners will be able to understand Islamic architecture
HIS 363	**ational Relations 1945- 20**	CO 1	Learners will be able to understand Origins of Cold War
		CO 2	Learners will be able to understand Korean Crisis
		CO 3	Learners will be able to understand Commonwealth
		CO 4	Learners will be able to understand Oil diplomacy and impact on international Polity and Economy
		CO 5	Learners will be able to understand Role of UNO in the Maintenance of World Peace
HIS 364	**Of South India 1336 –18**	CO 1	Learners will be able to understand Political Conditions of South India
		CO 2	Learners will be able to understand Foundation of Vijayanagara Kingdom
		CO 3	Learners will be able to understand Bahamani Kingdom

		CO 4	Learners will be able to understand Marathas Incursions in South India
		CO 5	Learners will be able to understand Nayak Rule in Tamil Nadu
HIS 366	**tory Of Japan 1868 –195**	CO 1	Learners will be able to understand Decline of Shogunate
		CO 2	Learners will be able to understand The territorial expansion
		CO 3	Learners will be able to understand Japan and the First World War
		CO 4	Learners will be able to understand Rise of militarism in Japan
		CO 5	Learners will be able to understand Allied occupation
HIS 367 a	**Of Pondicherry 1674- 1**	CO 1	Learners will be able to understand Advent of the French
		CO 2	Learners will be able to understand French relations with Haidar Ali and Tipu
		CO 3	Learners will be able to understand Impact of Indian National Movement on Pondicherry –
		CO 4	Learners will be able to understand French Legacy in Pondicherry
BCS			
Semester-I			
CC-1	Financial Accounting	CO 1	Introduction to Accounting Principles, Concepts and Conventions, Accounting Standards issued by ASB.
		CO 2	Acquire conceptual knowledge of basics of accounting and preparation of financial accounts of Sole Trader.
		CO 3	Familiarize with Self-balancing Ledgers, Rectification of Errors.
		CO 4	Acquire accounting knowledge of Non-Trading Concerns.
		CO 5	Acquires knowledge of books of recording under Hire Purchase & Installment Methods.
		CO 6	Acquires knowledge about the preparation of Partnership Accounts.
CC-2	Business Management	CO 1	To provide conceptual understanding of Management concepts, principles and functions..
		CO 2	Ability to execute managerial tasks of planning, organizing and controlling.

		CO 3	Use effective communication skills to promote respect and relationship.
		CO 4	To familiarize with communication motivation and leadership towards directing
		CO 5	Articulate ideas persuasively and logically and collaborate with others toward a common goal
		CO 6	Understand the nature and dynamics of social behavior relating to organizational performance in order to develop strategies to become effective in organizations.
GE-1	Business Economics	CO 1	Understand Basic problems of an economy and concept of business cycles
		CO 2	Learn the theory of Demand and related concepts
		CO 3	Understand the theory of supply and Consumer Behaviour.
		CO 4	Obtain knowledge about the theory of Production, Costs and Revenue.
		CO 5	Identify various types of Markets.
AECC-1	Introduction to Public Administration	CO 1	This would help them obtain a suitable conceptual perspective on Public Administration
		CO 2	. In addition, the course introduces to students, the growth of such institution devices as to meet the need of changing times
		CO 3	The course also aims to instill and emphasize the need of ethical seriousness in contemporary Indian public administration within the Constitutional framework.
Semester-II			
CC-3	Advanced Accountancy	CO 1	The learners will be able to: 1. Prepare Receipts & Payment Account, Income & Expenditure Account and Balance Sheet for Non-Profit Organizations
		CO 2	The learners will be able to: Define single entry system, compare with double entry system and apply the accounting treatment in business
		CO 3	The learners will be able to: Explain the Fundamentals of Partnership accounts and Prepare accounts relating to admission of a partner.
		CO 4	The learners will be able to: Acquire knowledge on dissolution accounting

		CO 5	The learners will be able to: Using appropriate software for recording transactions and preparing accounts under Hire Purchase and Installment Purchase System.
CC-04	Business Law	CO 1	Learn the difference between valid void and voidable contract.
		CO 2	Memorize difference between contract of guarantee and indemnity
		CO 3	Analyze the rights and duties of Pawnor and Pawnee under contract of bailment..
		CO 4	Learn how to pursue the consumer rights under Consumer Protection Act 1982.
		CO 5	Acquire knowledge about Negotiable Instruments Act 1881.
		CO 6	Acquire knowledge about Sale of Goods Act 1930 – Formation of contract sale and transfer of property in goods.
GE-02	Performance & Policies	CO 1	Understand the major economic problems in India and their solutions.
		CO 2	Provide an understanding of modern tools of macro-economic analysis and policy framework.
		CO 3	Understand the causes and consequences of business cycles.
		CO 4	Understand the roles of fiscal and monetary policy in fighting recessions and inflation.
		CO 5	Understand factors that contribute to and detract from long-term economic growth.
		CO 6	Apply economic reasoning to understand the operation of an economy.
AECC-II	Environmental studies	CO 1	Demonstrate skills in organizing projects for environmental protection and sustainability;
		CO 2	Analyse various projects and initiatives with respect to ecosystem restoration;
		CO 3	Interpret significance of carbon footprints;
		CO 4	Describe the environmental issues and their possible repercussions on the plant in the next few decades;
		CO 5	Summarize the green strategies and policies adopted by various business entities to preserve the environment.
Semester-III			

CC-05	Principles of Costing	CO 1	Define the various components of total cost of a product i.e. direct & indirect cost and fixed & flexible cost.
		CO 2	Determine various levels of material i.e. reorder level, minimum level, maximum level & EOQ for managing working capital.
		CO 3	Use methods of time-keeping & time-booking and manage idle & overtime.
		CO 4	Define the features of overhead or indirect cost of production and basis of allocation and apportionment.
		CO 5	Use cost-sheet to compute unit cost of product.
		CO 6	Determine basis for computing tender price of a product.
CC-08	Tax(GST)	CO 1	Understanding the concept of GST & GST Council
		CO 2	Getting information about the provisions of GST Act – CGST, SGST & IGST Acts
		CO 3	Understanding about the Levy & Collection of Tax, Registration, Tax Invoice and Debt Credit Notes
		CO 4	Awareness of Administration of GST Accounts and Records, Returns, Payment of Tax and Refunds
		CO 5	Understanding about the demand and recovery, Liability to pay Tax, Advance Ruling, Appeals and Revisions, Offences and Penalties
CC-07	Business Statistics	CO 1	Acquire conceptual knowledge of Statistics as a Subject, Descriptive Statistics, Types od Data, Summation Operation and Ruleof Sigma Operations.
		CO 2	Able to independently calculate basic statistical parameters (mean, measures of dispersion, correlation coefficient, indexes)
		CO 3	Able to interpret the meaning of the calculated statistical indicators
		CO 4	Able to choose a statistical method for solving practical problems
		CO 5	Able to explain probability theory and probability distributions in relation to general statistical analysis.
		CO 6	a systematic approach involving accepted statistical techniques.

CC-08	Corporate Accounting	CO 1	preparing the financial statement.
		CO 2	Acquire the knowledge of companies accounts - Accounts of Holding Company & Banking Companies.
		CO 3	Get the Knowledge of banking system.
		CO 4	Learn about Working format of companies.
		CO 5	Find out how a company can dissolve.
		CO 6	Know the process of liquidation which is included in the company accounts.
DES-1(A)	Corporate Governance	CO 1	dilemmas faced by managers in most business organization
		CO 2	issues in business.
		CO 3	To equip students with corporate governance and to investigate and introduce various governance mechanisms in a globalized economy
SEC-01	Business Communication	CO 1	Know various forms of communication, communication barriers
		CO 2	Comprehend a variety of business correspondence and respond appropriately;
		CO 3	Communicate in writing for various commercial purposes;
		CO 4	Use appropriate grammatical constructions and vocabulary to communicate effectively;
		CO 5	Use business language and presentation skills
Semester-IV			
CC 09	Management Accounting	CO 1	Acquire conceptual knowledge of Management Accounting, its relationship with Cost Accounting and Financial Accounting and various tools & Techniques of Management Accounting..
		CO 2	preparation of Fund Flow and Cash Flow Statements.
		CO 3	information in Managerial Decision – making.
		CO 4	Analyze and interpret Financial Statements from the point of view of Management and Outsiders.

		CO 5	To critically analyze and provide recommendations to improve the operations of organizations through the application of Management Accounting Techniques.
		CO 6	Develop the ability to collect, analyze and communicate quantitative and non-quantitative information to assist management in making more effective planning and control decisions.
CC 10	Bank Management	CO 1	Acquaint the students with the basics of Commercial Bank Management
		CO 2	Familiar with and able to navigate the various overlapping legal and regulatory regimes
		CO 4	Demonstrate a comprehension of the principles of banking law and its relationship to banks and customers
		CO 5	Demonstrate an awareness of law and practice in a banking context.
		CO 6	Engage in critical analysis of the practice of banking law from a range of perspectives.
		CO 7	Organize information as it relates to the regulation of banking products and services.
CC 11	Company Law	CO 1	Know about the concept of company and shares
		CO 2	Know about the company law in the India
		CO 3	Understand the use of the memorandum of association and article of association in a
		CO 4	Use of prospectus in a company.
		CO 5	Understand the relationship between company and debenture holders.
CC 12	Management	CO 1	To understand the various classification and description of Finance function
		CO 2	To learn about the detailed analysis of Capital Structure
		CO 3	To learn about the detailed analysis of Cost of Capital
		CO 4	To understand the Concepts of Capital Budgeting Techniques
		CO 5	To learn about the various types of Dividend policy
DES-02 (B)	Secretarial Practices	CO 1	To understand the importance, roles, duties and responsibilities of a companysecretary
		CO 2	To gain knowledge regarding alterations of memorandum of association, articles of association and procedures involved in issuing prospectus
		CO 3	reports
		CO 4	To learn the procedures about appointment and removal of key managerial personnel

		CO 5	To understand the procedure of conducting board meeting and members rights and liabilities
SEC-02	Arithmetic Skills	CO 1	activities.
		CO 2	Define basic terms in the areas of business ratios, Proportion and Percentage and
		CO 3	Solve problems in the areas of business calculus, simple and compound interest account, use of compound interest account, loan and consumer credit.
		CO 4	Acquires conceptual knowledge on Matrices and Determinates and conditions for existence and uniqueness of solution.
		CO 5	Identifies and defines the relationships that exist among the business variables.
		CO 6	Connect acquired knowledge and skills with practical problems in economic practice.
Semester-V			
CC-13	Income Tax Law & Practice-I	CO 1	Determine the residential status of individuals and to calculate the incidence of taxation
		CO 2	Compute income from salary by applying the provisions of income tax Act 1961
		CO 3	Compute income/loss from house property
		CO 4	Prepare Statement showing taxable income from business/profession
		CO 5	Assess capital gains and income from other sources
CC-14	Money & Financial System	CO 1	Explain the Meaning, Scope and functions of Banking Systems in India
		CO 2	Illustrate the recent trends in Banking and its services
		CO 3	Explain the Concept of Credit Creation Process
CC-15	Research Techniques	CO 1	To familiarize about the research and its types
		CO 2	To know the sources of research problem and research design
		CO 3	To understand the different methods of data collection
		CO 4	To familiarize about the analysis of data and its types
		CO 5	To know the preparation of report
CC-16	Human Resource Management	CO 1	Develop necessary skills to prepare an HR policy to enable the employees attain work life balance

		CO 2	Analyse the applicability and use of different kinds of trainings strategies in real life scenarios
		CO 3	Organize counselling sessions for employees in an organisation
DSE-03(A)	Marketing Management	CO 1	Explain the marketing concept, functions of marketing and marketing mix
		CO 2	Develop a new product and to apply the pricing strategies
		CO 3	. Determine the channels of distribution for marketing products
		CO 4	Apply the various promotional strategies in marketing
		CO 5	Segment the market and apply the modern marketing techniques
SEC-3	Computer Application Skills	CO 1	Provides an exposure to the use of office automation software and accounting package software in making business decisions.
		CO 2	Work effectively with a range of current, standard, Office Productivity software applications.
		CO 3	Evaluate, select and use office productivity software appropriate to a given situation.
		CO 4	Apply basic adult learning and assessment principles in the design, development, and presentation of material produced by office productivity applications
		CO 5	Demonstrate employability skills and a commitment to professionalism.
		CO 6	Operate a variety of advanced spreadsheet, operating system and word processing functions.
		CO 7	Familiarize the students automation of accounts, Inventory Control, Accounts of Banking and Departmental Accounting through Application of Tally Software
Semester-VI			
SEC-3	Entrepreneurial Skills	CO 1	and behavior.
		CO 2	Understand the basic development of entrepreneurship as a profession
		CO 3	Identify and implement systems for collecting and analyzing information to monitor the performance of a new firm
		CO 4	Understand the differences between an entrepreneurial venture and an ongoing business operation

		CO 5	Understand the critical roles of marketing research, competitive analysis, consumer-value proposition, and market-entry strategy in the development of a business plan.
		CO 6	Understand the importance and role of ethical, sustainability, innovation and global issues for strategic decision making.
DSE-4(A)	Operations	CO 1	To enable the students to understand the operations of financial markets.
		CO 2	To impart knowledge on various financial markets and their services.
		CO 3	To introduce the students about Financial System prevalent in India
		CO 4	To impart knowledge about the structure of development banks in India
		CO 5	capital companies in India.
		CO 6	To enable the students to understand the progress of Government securities markets, Treasury Bill market, Commercial Paper Market and Certificate of Deposits Market in India.
CC-17	II	CO 1	Apply the concept and procedure of set off and carry forward of losses
		CO 2	Analyse and compute deductions from gross total income
		CO 3	Explain the meaning of assessment and its procedure to compute tax liability
		CO 4	Compare PFAF with PFAOP and its procedure to compute tax liability
		CO 5	Classify the companies and its procedure to compute tax liability.
CC-18	Corporate Control System	CO 1	To provide an understanding about strategic planning and its formulation
		CO 2	To render knowledge about the concepts of responsibility accounting and profit planning
		CO 3	To give an understanding about the standard costing and budgetary contro
		CO 4	To enable an idea about management Information system
CC-19	insurance	CO 1	Explain the Principles of Insurance
		CO 2	Compare and Contrast insurance with assurance and explain provisions relating to life insurance
		CO 3	Analyse the principles of Marine Insurance
		CO 4	Prepare Claim on fire insurance policies
		CO 5	Apply the acquired skills in marketing of Life Insurance business
CC-20	Portfolio Management	CO 1	List out various investment avenues available for investment

		CO 2	Relate each investment avenue's benefits in terms of selected parameters
		CO 3	Apply security valuation concept to shares and bonds and take investment decision
		CO 4	Analyze financial statements and historical price of stocks and predict future price movement.
		CO 5	Evaluate portfolio performance by applying various techniques.
ENGLISH			
Semester-I			
ENGL 111	Indian Writing in English	CO 1	Students become aware of prose and poetry pieces in Indian Writing in English
		CO 2	Students explain the beauty and communicative power on Indian Authors in English
		CO 3	Students realize the importance of native experiences to understand literary text
		CO 4	Students acquire the basic insights of Indianness
ENGL 112	Prose	CO 1	Students become familiar with the Prose as basic literature
		CO 2	StudentsknowdifferenttypesofproseinEnglish
		CO 3	Students understand the different prose writers
		CO 4	Students develop integral view of language and literature
ENGL 113	Public Administration	CO 1	Students get known of Basic Understanding of Public related issues
		CO 2	Students are able to write about somebasics of administration
		CO 3	Students understand and explain structure of public relations and administration
		CO 4	Students prepare for competitive examinations
Semester-II			
ENGL 121	Poetry	CO 1	Explain elements of Poetry
		CO 2	Discuss Poetry as a literary genre
		CO 3	Elucidate features of English Poetry
		CO 4	Critically examine the prescribed poems
ENGL 122	Fiction	CO 1	Students can explain the basics of Fiction
		CO 2	Students write about the types and characteristics of Fiction

		CO 3	Students can define the aesthetics of Fiction
		CO 4	Students learn apply critical terms to Fiction
ENGL 123	Environmental Studies	CO 1	Students define the basics concerns of Environment
		CO 2	Students explain the values of Environment
		CO 3	Students explain various aspects of Environmental Studies
		CO 4	Students undertake a detail study of climate change
			Semester-III
ENGL 231	Literature	CO 1	Identify different periods of British Literature
		CO 2	Find out literary trends in the selected eras
		CO 3	Familiar with major authors of British LiteratureCO4.Acquainted with features of British Literature
		CO 4	Make a brief account of British Literary world
ENGL 232	Linguistics	CO 1	Students define the basics of language studies
		CO 2	Students explain the technical terms of linguistics
		CO 3	Students explain various aspects of language studies
		CO 4	Students undertake a detail study of phonetics, pragmatics and syntax
		CO 5	Students develop integral view of language and linguistics
ENGL 233	Communication Skills	CO 1	1Writebasics of Communication Skills
		CO 2	Elaborate significance of Communication Skills
		CO 3	Comment on the oral and written communication
		CO 4	Definebarriers to communication
		CO 5	Equip themselves with fundamentals of communicative abilities
			Semester-IV
ENGL 241	British Drama	CO 1	Examine major dramatic movements from Pre- Shakespeare Theatre to 20th Century drama
		CO 2	Analyse to appreciate artistic and experimental employment of language of Drama
		CO 3	Comment on various theatrical experiments in British Drama
		CO 4	Explore values and human concerns get reflected in drama
		CO 5	Illustrate the selected texts
ENGL 242	Literary Forms	CO 1	Define basic principles of literary forms

		CO 2	Explainelements of major forms of literature
		CO 3	Commentonthecharacteristics ofpoetry, fiction, drama and prose
		CO 4	Illustrate the major literary devices used in poetry, fiction, drama and prose
		CO 5	Critically examine the selected prose and poetry passages/stanzas
ENGL 243	Writing Skills	CO 1	Students acquire the basics of writing skills
		CO 2	Students explain the various types of written communication
		CO 3	Students trained in note making
		CO 4	Students undertake a practice of abstract and report writing
		CO 5	Students are introduced with digital mediums of communication
Semester-V			
ENGL 251	Examinations	CO 1	Students acquire the basics of common errors in English
		CO 2	Students able to form correct sentence in English
		CO 3	Students train in Reading comprehension and foreign expressions
		CO 4	Students undertake a practice of writing essays, letters and reports
		CO 5	Students are introduced with idioms and phrases in English
ENGL 252	Literary Criticism	CO 1	Define principles and functions of literary criticism
		CO 2	Explain Plato and Aristotle's classical views about art
		CO 3	Comment on the anti-classical and pro-democratic trends in criticism
		CO 4	Introduced new trends in 20^{th} century criticism
		CO 5	Study major critics of English Literary Criticism
ENGL 253	Shakespeare	CO 1	Students read major works of Shakespeare

		CO 2	Students illustrate dramatic technique of Shakespeare
		CO 3	Students comment on the Shakesperean Theatre
		CO 4	Students explain the characters and of Shakespeare's plays
		CO 5	Critically examine the selected plays of Shakespeare
ENGL 254	American Literature	CO 1	Students take an overview of American Literature
		CO 2	Students illustrate major trends in American Literature
		CO 3	Students comment on select works American writers
		CO 4	Illustrate the characters and themes of select literary works
		CO 5	Critically examine the selected poems, plays and novels
ENGL 255	Postcolonial Literature	CO 1	Students familiar withPostcolonial Literature
		CO 2	Students illustrate the marginalisedliterature
		CO 3	Students understand the subaltern literature
		CO 4	Elaborate the language and culture dominance over colonised world
		CO 5	Critically examine the selected poems, plays and novels
ENGL 256	English for Mass Media	CO 1	Define basic principles of media
		CO 2	Explainelements of major types of media
		CO 3	Commentonthecharacteristics ofprint media
		CO 4	Illustrate the major devices used visual media
ENGL 257	Soft Skills	CO 1	Understand the significance of soft skills
		CO 2	Practice team work, problem solving, adaptability and emotional intelligence
		CO 3	Commentontheaspects of soft skills
		CO 4	Deliver practical outcomes of soft skills
		CO 5	Develop stage daring and leadership qualities
			Semester-VI
ENGL 261	Translation Studies	CO 1	Students acquaint with theories of translation
		CO 2	Understand the history of translation
		CO 3	Commentonthe key characteristics oftranslation studies
		CO 4	Illustrate the major problems of translation
		CO 5	Familiar with recent translation theories
ENGL 262	Literature in Translation	CO 1	Students introduce to regional literatures

		CO 2	Explainelements literature in translation
		CO 3	Acquaint with national and Global literature through literature
		CO 4	Study major writers in translation from regional languages
		CO 5	Critically examine the selected prose and poetry passages/stanzas
ENGL 263	Theories	CO 1	Students understand the basics of literary theories
		CO 2	Students elaborate different types of literary theories
		CO 3	Students define the characteristics differences of various approaches
		CO 4	criticism and gender studies
		CO 5	Students realise the significance of literary theories
ENGL 264	and Usage	CO 1	Students practice basic skills of grammar
		CO 2	Students understand usages of tenses
		CO 3	Students use correct grammar in writing and speaking
		CO 4	Speaking and writing improvement
ENGL 265	Women Writing	CO 1	Students take an overview of women writing
		CO 2	Students illustrate major trends in women writing
		CO 3	Students comment on select works of women writing
		CO 4	Illustrate the characters and themes of select literary works
		CO 5	Critically examine the selected poems, plays and novels
ENGL 266	Green Literature	CO 1	Students define the basics concerns of Environment
		CO 2	Students explain the values of Environment through literature
		CO 3	Students aware of various aspects of Environmental Studies
		CO 4	Students undertake a detail analysis of texts through the lenses of environment
ENGL 267	Literature	CO 1	Students introduce to the basicsnotions of culture
		CO 2	Students familiarize with the history of Indian culture and literature
		CO 3	Students undertake the study of major Indian writers
		CO 4	Students comment on Indian mythologies
MATHEMATICS			
Semester-I			
MATH111	Trigonometry	CO1	Describe the relationship between roots and coefficients of equations.
		CO2	Transform equations by manipulating roots through multiplication, increasing or decreasing them, and removing terms.

		CO3	Develop problem-solving skills in algebra and trigonometry.
		CO4	Acquire knowledge of key concepts used in the theory of equations and trigonometry.
MATH112	Differential Calculus	CO1	Select and apply appropriate models and differentiation techniques to solve problems.
		CO2	Demonstrate familiarity with differentiation techniques for functions with real variables.
		CO3	Understand the concept of curvature and calculate curvature for curves defined in Cartesian form.
		CO4	Apply derivative tests in optimization problems across various disciplines such as social sciences, physical sciences, and life sciences.
Semester-II			
MATH122	Integral Calculus	CO1	Demonstrate familiarity with integration techniques for functions with real variables.
		CO2	Develop an understanding of triple integrals.
		CO3	Understand integral problem formulation and solution methods.
		CO4	Describe methods for solving Beta and Gamma functions.
Semester-III			
MATH231	Abstract Algebra	CO1	Relate abstract algebraic constructs to more familiar number sets and operations.
		CO2	Understand the basic concepts of group actions and their applications.
		CO3	Comprehend fundamental concepts in ring theory, such as ideals, quotient rings, integral domains, and fields.
		CO4	Actively participate in transitioning important concepts like homomorphisms and isomorphismsfrom discrete mathematics to advanced abstract mathematics.
MATH232	Real Analysis - I	CO1	Acquire knowledge of the role of the Real number system.
		CO2	Understand the real number system and concepts related to countability.
		CO3	Learn the concept of convergence of sequences and series in the Real number system.

		CO4	Identify the continuity of functions defined on metric spaces.
MATH233	Logic and Lattices	CO1	Understand the concepts of mathematical logic, such as connections and tautologies.
		CO2	Study the concepts of relations and functions.
		CO3	Gain knowledge in formal languages and automata.
		CO4	Classify the concept of lattices and Boolean algebra.
Semester-IV			
MATH241	Linear Algebra	CO1	Explain the theory behind relations and functions, identifying domains and images of functions based on given structures.
		CO2	Understand vector spaces, subspaces, bases, and dimension, along with their properties.
		CO3	Relate matrices and linear transformations, compute eigenvalues and eigenvectors of linear transformations.
		CO4	Learn properties of inner product spaces and determine orthogonality in inner product spaces.
MATH242	Real Analysis - II	CO1	Understand various standard concepts of metric spaces and their properties.
		CO2	Learn different definitions related to Riemann integrals.
		CO3	Understand the consequences of various mean value theorems for differentiable functions.
		CO4	Improve problem-solving skills in Real Analysis.
MATH243	Vector Calculus	CO1	Acquire knowledge of geometric properties of surfaces, three-dimensional vectors, vector-valued functions, planes, lines, and cylindrical and spherical coordinate systems.
		CO2	Learn to graph, differentiate, integrate, and solve applied problems involving parametric equations and vector-valued functions.
		CO3	Manipulate vectors to perform geometrical calculations in three dimensions.
		CO4	Recognize the importance of Green's, Gauss', and Stokes' theorems in other branches of mathematics.
Semester-V			
MATH351	Programming Using SciLab-Practical	CO1	Introduce students to the software SciLab for numerical computations and basic commands through the Command window and output through the Graph.

		CO2	Interpret and visualize simple mathematical functions and operations using plots/display.
		CO3	Analyze programs for correctness and determine/estimate/predict the output and verify.
		CO4	Evaluate, analyze, and plot results.
MATH352	Complex Analysis - I	CO1	Understand the basic complex number system and various operations, analyses, and problems related to complex numbers.
		CO2	Understand the significance of differentiability and analyticity of complex functions, leading to the Cauchy-Riemann equations.
		CO3	Learn about complex differentiation, planar mappings, analytic and harmonic functions, and conformal mapping.
		CO4	Improve problem-solving skills in Complex Analysis.
MATH354	Equations	CO1	Understand the genesis of ordinary differential equations.
		CO2	Learn various techniques for exact solutions of solvable first-order differential equations and linear differential equations of higher order.
		CO3	Use techniques for finding Laplace transforms and inverse Laplace transforms of real functions and their application in solving ordinary differential equations.
		CO4	Formulate mathematical models in the form of ordinary differential equations to suggest possible solutions for problems in physical, chemical, and biological disciplines.
MATH356	Mathematical Statistics - I	CO1	Acquire basic knowledge of probability axioms and rules, as well as moments of discrete and continuous random variables and common named distributions.
		CO2	Derive probability density functions of transformations of random variables and use these techniques to generate data from various distributions.
		CO3	Understand the most common discrete and continuous probability distributions and their real-life applications.
		CO4	Translate real-world problems into probability models.
MATH357	Programming using SCILAB	CO1	Develop programs in SCILAB.
		CO2	Perform mathematical modeling in SCILAB.
		CO3	Develop programs for 2-D graphics for contour plots.
		CO4	Apply SCILAB in solving ordinary differential equations.

Semester-VI			
MATH361	Numerical methods-Practical	CO1	Implement simple mathematical functions/equations in a numerical computing environment such as MATLAB/SCILAB.
		CO2	Develop and implement stable and accurate numerical methods to solve linear systems of equations and find roots of linear and nonlinear equations.
		CO3	Perform numerical interpolation, curve fitting, integration, and differentiation.
		CO4	Develop and implement stable algorithms to solve ordinary differential equations and simple partial differential equations.
MATH362	Complex Analysis - II	CO1	Acquire knowledge of Complex Integration.
		CO2	Learn the role of Cauchy-Goursat theorem and Cauchy integral formula in the evaluation of contour integrals.
		CO3	Understand the convergence, term by term integration, and differentiation of a power series.
		CO4	Learn Taylor and Laurent series expansions of analytic functions, classify the nature of singularity, poles, and residues, and apply Cauchy Residue theorem.
MATH364	Equations	CO1	Acquire knowledge of Partial Differential Equations (PDE).
		CO2	Expose different techniques for finding solutions of PDE.
		CO3	Apply a range of techniques to solve first and second-order partial differential equations.
		CO4	Model physical phenomena using partial differential equations such as the heat and wave equations.
MATH366	Mathematical Statistics - II	CO1	Perform correlation, regression analysis, and appropriate statistical tests for real-life situations.
		CO2	Explore small and large datasets to create testable hypotheses and identify appropriate statistical tests.
		CO3	Apply different sampling methods for designing and selecting a sample from a population.
		CO4	Formulate null and alternative hypotheses and apply small, large sample, and nonparametric tests in real-life problems.
MATH367	Numerical Methods	CO1	Obtain numerical solutions of algebraic and transcendental equations.
		CO2	Learn various interpolating and extrapolating methods.

		CO3	Solve initial and boundary value problems in differential equations using numerical methods.
		CO4	Apply various numerical methods in real-life problems.
PHYSICS			
Semester-I			
PHYS-111	Mechanics of particles,	CO1	To Understand the Laws of Motion.
		CO2	To Understand the Basics of Vector Calculus
		CO3	Understand the Laws of Gravitation, GPS
		CO4	To Understand the Rigid Body Dynamics
		CO5	To Understand and determination Elasticity, Viscosity and Surface Tension Properties and their Applications
PHYS-112	Kinetic theory and	CO1	To Understand the Laws of Thermodynamics and their applications.
		CO2	To Understand the different Thermodynamic Potential and application of Specific heat of gases
		CO3	To Understand the Black Body Radiation and derivation of different Laws of Radiation
		CO4	Introduction to Statistical Mechanics
Semester-II			
PHYS – 121	**Oscillations waves and acoustics**	CO1	To Understand the Superposition Principle of Harmonic Oscillations analytically and Garaphically and understand the Beat Phenomenon
		CO2	To Understand Wave Motion and Applications
		CO3	To Understand the Sound Phenomenon and dependence of its on Pressure and Temperature
		CO4	To Understand Acoustics and its applications
PHYS – 122	**Optics**	CO1	To Understand Fermat's Principals and Matrix Method of representation in Paraxial Optics
		CO2	To study Reflection and Refraction Phenomenon in Optics and different Aberrations present in lenses
		CO3	To study Interference and Diffraction of Light and their Applications
		CO4	To Understand Polarization of Light, its production and applications
Semester-III			

PHYS – 231	**Electricity and Magnetism**	CO1	To Study Vector Analsis and introduction to Gauss-divergence and Stoke's Theorem
		CO2	To Understand Electric Force, Electric Field and Electric Potential in different
		CO3	To Understand the basics laws of Magnetism and calculations of magnetic field of
		CO4	To Study Maxwell's Equation and Electromagnetic Wave Propagation.
PHYS – 232	**Modern Physics and Relativity**	CO1	To Understand the various problems where Classical Physics fails to explain which leads to Modern Physics
		CO2	To Understand Plank's Quantum Principle, Photon, Photo Electric effect and its applications
		CO3	To Understand Schrodinger equation and introduction to Quantum mechanical operators, Physics interpretation of wave equation , Probabilities
		CO4	To Understand Special Theory of Relativity and its Postulates. Length Contraction etc.
Semester-IV			
PHYS – 241	Quantum Mechanics	CO1	Understand the Time Dependent Schrodinger Equation and its Applications and evaluation of Quantum mechanical Operators
		CO2	To study the general form of uncertainty principle and its applications
		CO3	Discussion of bound States in an arbitrary potentials
		CO4	Understand the Quantum Theory of Hydrogen and like atoms.
PHYS – 242	**Electronics**	CO1	Understanding of Network Theorems, LR,CR, LCR Circuits
		CO2	Study of different Diodes , biasing of Diodes and Applications
		CO3	Study of different Transistor, Biasing and Applications
		CO4	Study of different FET , JFET, MOSFET and applications
		CO5	Study of different Operational Amplifiers , its properties and its applications
Semester-V			
PHYS – 352	**Solid States Physics**	CO1	Understanding of Crystallography, lattice parameters, X-Ray Diffraction of Crystals
		CO2	Study of types of bonding in solids, lattice vibrations-Optic and acoustic mode
		CO3	Study of different conduction mechanism in solids
		CO4	Study of different magnetic properties and applications in Solid State Physics

		CO5	Study of Superconductors , Meisesner Effect and Type-I and Type-II Super Conductors.
PHYS – 353	**Atomic and Molecular Spectroscopy**	CO1	Understanding of Atomic Spectra, Coupling of Orbiatls, X- Ray Spectra, Moseley's law
		CO2	Study of the Effect of Magnetic Field on energy levels: Zeeman effect
		CO3	Understanding of Rotational and Vibrational levels and their applicaitions
		CO4	Study of Raman Effect and its Applications
		CO5	Understanding of Laser Systems and their applications
PHYS – 354	Digital Electronics	CO1	Understanding of Binary Numbers System an different logic gates, Karnaugh map, Combinational logic gates
		CO2	Understanding working principle of Flipflpts-RS Filpflop, JK Filpflop, JK-Master slave Filpflop,
		CO3	Understanding working principle of Multiplexrs, Counters, A/D and D/A Converters
		CO4	Study of Pin Configuration, Addressing modes, Instruction set of Microprocessors
		CO5	Study of Components of Microprocessors , Programming of Microprocessors.
PHYS – 355	Astrophysics	CO1	Understanding Radiointerferimetry –Characterstics and Properties. Working of Hubble Space Telescope
		CO2	Study of Astronomical Objects, Chandrasekhar limit, Schwarzschild Radius, Tidal and Planetesimal Theories
		CO3	Study of Solar System, Big bang Theory
		CO4	Application of Astrophysics, Rocket equations and Theory of Geosynchronous Satellite.
			Semester-VI
PHYS – 362	Numerical Methods and Computational Physics	CO1	Understanding of Binary Numbers System an different logic gates, Karnaugh map, Combinational logic gates
		CO2	Understanding working principle of Flipflpts-RS Filpflop, JK Filpflop, JK-Master slave Filpflop,
		CO3	Understanding working principle of Multiplexrs, Counters, A/D and D/A Converters
		CO4	Study of Pin Configuration, Addressing modes, Instruction set of Microprocessors

		CO5	Study of Components of Microprocessors , Programming of Microprocessors.
PHYS – 363	**Nuclear Physics**	CO1	Understanding the properties of Nuclear – Size, mass, charge Desnsity, Binding Energy curve
		CO2	Understanding different Nuclear Model, Magic Numbers and Concept of Nucler Force.
		CO3	Understanding Radioactivity Decay , Nuclear Reactions, Conservation Laws
		CO4	Understanding the basics of Particle Physics and Different Quantum Numbers and conservation rules
PHYS – 364	**Renewable Energy and Energy harvesting**	CO1	Understanding the importance of Alternative Soruces of Energy – Fossil fuels and Nuclear Energy etc
		CO2	Study of Solar Energy and its importance
		CO3	Importance of Geothermal Energy an Hydropower Recourses
		CO4	Importance of Electromagnetic Harvesting and Recent Applications
PHYS – 365	**Communication**	CO1	Understanding Amplitude and Frequency Modulation
		CO2	Study of Image Transmission principle, Working of TV
		CO3	Study of Wave Propagation in Space
		CO4	Application of Communication Electronics
BOTANY (BSc)			
Semester-I			
AECC-1	Introduction to Public Administration	CO1	To make students aware about the constitutional values of India and about their rights and duties
		CO2	To understand the federal structure of the country and various state apparatuses functioning within it
		CO3	to teach students about the working of Union Territories administration specially Pondicherry
		CO4	to understand the changing role of administration with advent of new concepts like good governance, grassroots democracy, public private partnership, social audit etc.
UBOT 111	Thallophytes, Microbes and Plant Pathology	CO1	To understand the characteristics, ecology, distribution, classification and economic importance of algae and morphology of different algal species
		CO2	To understand the characteristics, ecology, significance and classification of fungi and life cycles of different fungal species

		CO3	To study the symbiotic associations with respect to Lichens and Mycorrhiza, and the types, general account and significance of Lichens and Mycorrhiza
		CO4	To understand bacteria and viruses through their structure, reproduction and other general characters and their classification
		CO5	To study the various diseases caused by plant pathogens
Semester-II			
AECC-2	Environment Studies	CO1	To understand the scope, importance and multidisciplinary nature of Environmental studies.
		CO2	To understand the basic concepts of Environmental Policies, Practices, Environmental Laws and relationship between Human communities and the Environment.
		CO3	To study different kinds of Ecosystems, Renewable and Non-renewable resources, Biodiversity and Conservation aspects.
		CO4	To gain basic knowledge on different kinds of Pollution, Nuclear hazards causes, effects and control measures
		CO5	Students get to know human society, evolution of culture and how it plays a role in socio economic structures
		CO6	Understand the functions of village, caste, family, kinship in determining access to resources
UBOT 121	Pteridophytes, Gymnosperms and Paleobotany)	CO1	To understand the archegoniates with reference to bryophytes through their general characters, economic importance, classification and type studies of important bryophytes
		CO2	To understand the early land plants and study the Pteridophytes through their general characteristics, economic importance, classification and type studies of important Pteridophytes
		CO3	To study the Gymnosperms through their general characteristics, economic importance,
		CO4	To understand fossils and fossilization process, economic importance, computation of age
		CO5	To study the fossils of Pteridophytes and Gymnosperms through type studies
Semester-III			
UBOT 231	Developmental Botany	CO1	To inculcate basic concepts of Developmental Botany and to study about development, structure and function of plant cell.
	(Cell Biology, Angiosperm Anatomy and Embryology)	CO2	To study the biological processes dealing with cell biology, cell organelles, cell cycle, cell division.

		CO3	To gain knowledge of origin, structure and function of plant tissues, and to understand and differentiate the internal structure of stem, leaf and root in monocot and dicot plants
		CO4	To familiarize in secondary growth in root and strem, anomalous secondary growth in monocot and dicot stems.
		CO5	To understand the process of microsporogenesis, megasporogenesis, pollination, double fertilization, also to understand endosperm and its types and know the structure and development of monocot and dicot embryos and to study the concepts and applications of apomixis and polyembryony.
UBOT 233	External Morphology of	CO1	It broadens the students understanding of plant identification and to study types, economic
		CO2	To study different forms of stems and their modifications to perform specialized functions
		CO3	To introduce the phyllotaxy, structure and modifications of leaves, also to study structure and different types of simple and compound leaves.
		CO4	To understand the concept of inflorescence, raceme, cyme and their different types and special types of inflorescence and also to study the detailed morphological structure of
		CO5	To study the types and economic importance of fruits and to study the seed morphology.
Semester-IV			
UBOT 241	Field Botany (Ecology and Angiosperm Taxonomy)	CO1	To understand the basic concepts of general ecology, ecological factors, plant habits and adaptations of plants.
		CO2	biogeochemical cycles and concept and significance of endemism.
		CO3	To study the basics of plant taxonomy and history of plant classification and to study the aim and scope of taxonomy, Binomial system, chemotaxonomy, cytotaxonomy, numerical taxonomy.
		CO4	To understand the types of Angiosperm classification systems and specific characteristics and economic importance of Polypetalae families.
		CO5	To study the characteristics and economic importance of Gamopetalae, Monochlamydeae and Monocot families.
UBOT 243	Herbal botany	CO1	To study the introduction of Herbal medicines, pharmacognosy, Indian traditional medicines.
		CO2	To inculcate the utilization of various medicinal herbs in curing ailments.
		CO3	To understand the phytochemical composition of herbal drugs and their biological testing for the presence of alkaloid, flavonoid, triterpenoid etc.

		CO4	Withania somniferum and Centella asiatica.
		CO5	To learn common medicinal preparation, TKDL and guidelines of WHO on standard herbal medicine.
Semester-V			
UBOT 351	Genetics	CO1	To understand heredity through Mendel experiments and related studies
		CO2	To study linkage and crossing over and their significance by understanding their types, mechanisms, and other test and proofs
		CO3	To study the fine structure of genes and chromosomes by understanding classical and molecular concepts of gene, cis-trans complementation test, allele and genotype frequencies, Hardy-Weinberg law, role of natural selection mutation, genetic drift. Genetic variation and Speciation
		CO4	To study mutations and chromosomal aberration by understanding their types and causes
		CO5	To study extra-chromosomal inheritance using certain examples
UBOT 353	Plant Physiology and Biochemistry	CO1	To study plant-water relations by understanding the properties of water, essential elements, mechanism of absorption of water and minerals by plants, and transport mechanism across cell membranes
		CO2	To study carbohydrates and lipids by understanding their importance, classification, structure, properties and their metabolism and biosynthesis
		CO3	To understand photosynthesis by studying the pigments and other components involved, the mechanisms of carbon fixation, synthesis of ATP and photorespiration
			To understand the mechanisms of transpiration and translocation of solutes
		CO4	To understand amino acids, proteins and enzymes by studying their importance, classification, structure and properties and to understand the mechanism of enzyme action
		CO5	To understand the mechanism of responses of plants to environment by studying the photoperiodism, phytochrome, vernalization, phytohormones and different types of stresses
UBOT 355	Farming	CO1	To study manures and biofertilizers for application in crop production

		CO2	To study bacterial biofertilizers: classification, characteristics, their uses and mechanism of action
		CO3	To study algal biofertilizers with special reference to Azospirillum and Azolla: isolation, multiplication and the mechanism of growth stimulation
		CO4	To study fungal biofertilizers by understanding mycorrhiza and its influence on growth and yield of crops
		CO5	To acquire knowledge on the methods of organic farming and waste recycling
UBOT 356	Biostatistics and Computer Applications in Biology	CO1	To understand the concept of biostatistics, methods of data collection, classification and presentation and frequency study
		CO2	To understand the measures of central tendency and variation
		CO3	To study the basics of computer: types, components, accessories, operating system, networks, internet, database
		CO4	To understand the application of different software in biology: MS office, Photoshop, BLAST, search engines, Google earth
		CO5	To understand the application of computer in biology with respect to bioinformatics: EMBL, GenBank, PIR, GIS, Remote sensing, BTIS, ENVIS and to study statistical softwares like SPSS and PSPP
UBOT 357	Intellectual Property Rights	CO1	To understand Intellectual property and the Rights (IPR), role of WTO and to study patents
		CO2	To study copyrights, trademarks and geographical indications
		CO3	To understand the concept of protection of traditional knowledge and industrial design
		CO4	To understand the methods of protection of varieties of plants by studying the Rights of Farmers, breeders and researchers.
		CO5	To study the methods of protecting biotechnology inventions using IPR
Semester-VI			
UBOT 361	Breeding	CO1	production and management of the crops
		CO2	To understand orchard and kitchen gardening: principles, planning and management
		CO3	To understand the modes of plant reproduction or propagation and the consequesces.

		CO4	To understand the methods of crop improvement by studying the hybridization and selection methods
		CO5	To understand the concepts of inbreeding depression and heterosis
UBOT 362	Plant Biotechnology	CO1	To study the basics techniques of plant tissue culture by studying its history, terminologies, laboratory design, sterilization methods and the culture media
		CO2	To study the types of tissue culture with reference to callus and suspension culture, the types of organogenesis, somaclonal variations and their uses in agriculture
			To study the production techniques of secondary metabolites from selected plants
		CO3	To study the types of tissue culture with reference to meristem culture, micropropagation, anther and pollen culture, protoplast culture and hybridization, hybrids and cybrids, somatic embryogenesis and artificial seed production
		CO4	To understand the techniques of genetic engineering by studying the molecular tools involved especially restriction enzymes and cloning vectors
		CO5	To study transgenic plants and the methods of production. To understand GM crops; their bioethics and Biosafety concern
UBOT 365	Plant Tissue Culture	CO1	To study the history of plant tissue culture and the terminologies
		CO2	To study the compositions of culture media
		CO3	To study the methods of sterilization employed
		CO4	To study different in-vitro techniques of culture and their importance
		CO5	To understand the applications and importance of plant tissue culture in metabolite production and in agriculture
UBOT 366	Ethnobotany	CO1	To understand the concept of ethnobotany and its importance
		CO2	To study the methods of ethnobotanical studies
		CO3	To understand the importance of ethnobotany in modern medicine with certain examples
		CO4	To understand the importance of ethnic groups in conservation of plant genetic resources
		CO5	To study the legal aspects of protecting the interest of ethnic people
UBOT 367	Greenhouse Technology	CO1	To understand the types and fundamental techniques involved in construction of greenhouse

		CO2	To understand the methods employed in application of fertilizers in greenhouses
		CO3	To understand the methods employed in irrigation of greenhouses
		CO4	To understand the methods employed in protection of plant diseases in greenhouses
		CO5	To study the importance and applications of greenhouses
BOTANY (MSc)			
Semester-I			
Paper I	Plant Diversity – I (Algae, Fungi, Lichens &Bryophytes)	CO1	To gain adequate knowledge on comparative account of various algal divisions., pteridophytes and gymnosperms
		CO2	To study and impart knowledge about the occurrence, distribution, structure and life history of lower plants such as algae, fungi, lichens, bryophytes.
		CO3	To recognize the morphology, anatomy, physiology, reproduction and lifecycle pattern of various lower plants
		CO4	To understand the diversity, complexity and the economic value oflichens.
		CO5	To learn the phylogeny and evolutionary concepts in lower group of plants.
Paper II	II(Pteridophytes, Gymnosperms &Palaeobotany)	CO1	To develop the understanding of important characteristics, anatomy,reproduction and evolution along with economic importance of pteridophytes and gymnosperms.
		CO2	The understand the ecological and economical importance of pteridophytes and gymnosperms.
		CO3	To understand the meaning of fossil and its use in the determination ofage of plant materials, Understanding the applied knowledge and different aspects of Palaeobotany.
		CO4	To critically differentiate fossil and living fossil and also to understand the
			evolutionary tendencies and comparative morphology of Cycadales, Cycadeodales and
			Pteridospermales.
		CO5	To learn the phylogeny and evolutionary concepts in plants.
Paper III	Plant Anatomy,Embryology & LaboratoryTechniques	CO1	To study tissues, their classification and functions, to study meristems, their classification anddistribution.
		CO2	To study the microsporogenesis andmegasporogenesis and to study the structure and development ofendosperm and embryo.

		CO3	To inculcate knowledge of origin, structure and function of plant tissues, and to understand and differentiate the internal structure of stem, leaf and root in monocot and dicot plants.
		CO4	To differentiate reproductive organs at Morphological, Anatomical,Physiological and Biochemical level and to apply in this knowledge in agriculture for production of hybrids and also to understand the allergic problems in Humans on the basis of pollens.
		CO5	To gain the knowledge of principles and applications of various laboratory techniques.
Semester-II			
Paper IV	Plant Diversity – III	CO1	To enable the students to get a fair knowledge oftaxonomy of angiosperms.
	(Taxonomy of Angiosperms)	CO2	To enable the students to develop skill inidentifying the local flora up-to species level.
		CO3	The aim is to add to understanding of the students about the diversity of plants,their Description, Identification, Nomenclature and their classification including recentadvances in the field.
		CO4	To gain the knowledge about various taxonomic evidences and also to understand how to
			prepare herbarium sheets and how to read floras.
		CO5	To understand the classical and modern trends of Angiosperm taxonomy specifically APG.
Paper V	Plant Ecology, ResourceUtilization & Conservation	CO1	To introduce the concepts and principles of ecology, biologicaldiversity, conservation, sustainable development, population, community andecosystem structure and function, application of these concepts to solveenvironmental problems.
		CO2	To understand the threats of air, soil and water pollution, and to understand the various threats of biodiversity and the strategies for conservation.
		CO3	To enable the students, acquire knowledgeabout their environment and to enable the students identify theenvironmental problems and issues.
		CO4	To understand the economic importance of different plants.
		CO5	To apprises students of conventional and non-conventional plant resources being used by

			human, their effective and sustainable utilization and improvement by biotechnological tools.
Paper VI	Biostatistics &Computer Applications in Biology	CO1	To deal with fundamentals of bioinformatics tools, computational biology and statistical methodsutmost necessary for contemporary research in plant science.
		CO2	To understand the concepts and applications of biostatistics andcomputer applications in biology.
		CO3	To understand the concept of biostatistics, methods of data collection, classification and presentation and frequency study.
		CO4	To operate and solve exercise using computation statistics software.
		CO5	To study the basics of computer: types, components, accessories, operating system, networks, internet, database.
Semester-III			
Paper VII	Biochemistry & Plant	CO1	To understand the molecular physiology anddevelopment of plant growth.
	Physiology	CO2	To understand fundamentals of Physiologicalaspects of plants and their different biochemical pathways.
		CO3	To educate student about the mechanism and physiology life processes in plants. It focuses on the plant nutrient uptake and translocation, photosynthesis,respiration and nitrogen metabolism.
		CO4	To understand the role ofvarious hormones, signalling compounds, thermodynamics and enzyme kinetics and to gain knowledge about various mechanisms suchas channel or transport proteins involved in nutrient uptake in plants.
		CO5	To educate students about the various metabolic pathways leading to theformation of significant molecules and their catabolism. It focuses upon the vital role of primary and secondary metabolites in plants.
Paper VIII	Cell Biology &Genetics	CO1	To study Mendelian and non-Mendelian inheritance,quantitative genetics, molecular markers and linkage mapping, prokaryotic andeukaryotic genome-structure, gene function and regulation, epigenetics, cytogenetics andcrop evolution.
		CO2	To understand the concepts and details of heredity and variation at molecular and cellularlevels.

		CO3	To understand of the history of gene from ‘something’, ‘factor’; and gene and one gene oneenzyme one characters hypothesis and also to know the interaction of gene, geneticrecombination producing the characters differently.
		CO4	To understand of the structure of chromosome and how the packaging of DNA occurs.
			Student can differentiate Euchromatin and heterochromatin region of chromosome on the basis ofstaining properties.
		CO5	To understanding the role and process of mutation and different mutagenic agent which bringsabout mutation in the organism and also understand the role of mutation in cropimprovement and permutation
Paper IX	Microbiology & PlantPathology	CO1	To study the diversity ofmicroorganisms including fungi, their classification, structure and growth.
		CO2	To understand classification of microbes, structureand reproduction and to gain some basic knowledge in soil and IndustrialMicrobiology.
		CO3	To introduce concepts and principles of plant pathology and disease cycle.
		CO4	To recognize plant disease and their causal microorganisms and to be acquainted plant disease management.
		CO5	To study of interaction betweenplant and pathogen in relation to the overall environment and mechanism of diseasedevelopment by pathogens.
Semester-IV			
Paper X	Plant Molecular Biology & Bioinformatics	CO1	To provide a foundation and backgroundin cellular and acellular entities of plants and animals, cell structure in relation tofunctions, eukaryotic genome structure (including nuclear and organellar), andregulatory mechanisms.
		CO2	To study the structure and organization of D.N.A., Replication Process,Transcription process, Translation process and Mutagenesis.
		CO3	To expose the students on the understanding of various techniques of gene mapping and
			sequencing for molecular studies.
		CO4	To get introduces to Bioinformatics and its significance in biological data analysis, and to describe the history, scope and importance of Genetic Engineering, Bioinformatics androle of internet in Bioinformatics.

		CO5	To classify different types of Biological Databases. Introduction to the basics of sequencealignment and analysis and to explore different types of protein and other organism specific databases.
Paper XI	Plant Biotechnology	CO1	To provide a detailed view of the visualizing concepts and technique for genetic engineering andbiotechnology, concepts and methods associated with development and analysisof transgenic plants, and their applications in basic and applied research.
		CO2	To gain the knowledge instruments required in Tissue culture Lab, Media preparation techniques for different plants, Sterilization techniques for media as well as for explants.
		CO3	To study the techniques utilized for explant Culture such as Anther culture Pollen culture, Micropropagation, embryo rescuetechnique.
		CO4	To learn the specific and non-specific methods of gene transfer, recombinant DNA technology.
		CO5	To study the applications of Biotechnology in Plant, Animal and Human welfare, Biotechnology and IPR, Biosafety, Biopiracy, Bioterrorism and Bioethics.
Paper XII	Individual Project	CO1	The objective is to train students in basics of research, literature recession, analysis and
			expression of their understanding of the topic in their own words and to make the students understand the problemselection and project design.
		CO2	To lay a strong foundation for the students tounderstand the basics of research and report preparation.
		CO3	To create research-oriented thought process and basic training.
		CO4	To train students in handling the basic and advance instruments and generate the data, compile and analyse and interpret the data.
		CO5	To develop the presentation skills in the students and get it ready to work in any R&D setup.
MATHEMATICS (NON-CBCS)			
Course Code	Course Name	CO Number	Course Outcomes (COs)
BMG 101-a	ALGEBRA AND TRIGONOMETRY - I	CO1	Understand symmetric, skew symmetric, Hermitian, and skew-Hermitian matrices.
		CO2	Perform elementary operations on matrices and find the inverse of a matrix.

		CO3	Determine linear independence of row and column matrices.
		CO4	Calculate row rank, column rank, and rank of a matrix; understand the equivalence of column and row ranks.
		CO5	Compute eigenvalues, eigenvectors, and the characteristic equation of a matrix.
		CO6	Apply Cayley-Hamilton theorem to find the inverse of a matrix.
BMG 102-a	CALCULUS I	CO1	Define the limit of a function and demonstrate understanding of basic properties of limits.
		CO2	Identify continuous functions and classify different types of discontinuities.
		CO3	Explain the concept of differentiability and perform successive differentiations using Leibniz's theorem.
		CO4	Apply Maclaurin and Taylor series expansions for functions.
		CO5	Analyze asymptotes and determine curvature of curves.
		CO6	Use tests to identify concavity and convexity and locate points of inflexion on curves.
		CO7	Handle multiple points and trace curves in Cartesian and polar coordinates.
		CO8	Perform integration of irrational algebraic functions and transcendental functions.
		CO9	Apply reduction formulae and evaluate definite integrals.
		CO10	Calculate quadrature and work with rectification of curves.
		CO11	Determine volumes and surfaces of solids of revolution.
BMG 103-a	VECTOR ANALYSIS AND	CO1	Calculate scalar and vector products of three vectors.
		CO2	Determine the product of four vectors.
		CO3	Understand the concept of reciprocal vectors.
		CO4	Perform vector differentiation and work with gradient, divergence, and curl.
		CO5	Solve problems related to the general equation of the second degree.
		CO6	Trace conic sections and analyze their properties.
		CO7	Work with systems of conics and understand confocal conics.
		CO8	Represent conic sections using polar equations.
BMG 101-b	ALGEBRA AND	CO1	Understand mappings, equivalence relations, and partitions.
		CO2	Apply congruence modulo n in various mathematical contexts.
		CO3	Define a group with examples and explore its simple properties.
		CO4	Identify subgroups and understand the generation of groups.

		CO5	Describe cyclic groups, coset decomposition, and Lagrange's theorem.
		CO6	Apply Fermat's and Euler's theorems in number theory.
		CO7	Explore concepts of homomorphism and isomorphism in group theory.
		CO8	Understand normal subgroups and quotient groups.
		CO9	Analyze permutation groups, even and odd permutations, and the alternating group An.
		CO10	Learn about Cayley's theorem and its significance.
		CO11	Introduce the concepts of rings, subrings, integral domains, and fields.
		CO12	Determine the characteristic of a ring.
		CO13	Calculate logarithms of complex quantities and expand trigonometric functions.
		CO14	Explore Gregory's series and summation of series.
BMG 102-b	CALCULUS II	CO1	Define the degree and order of a differential equation.
		CO2	Solve first-order, first-degree equations with separable variables.
		CO3	Work with homogeneous differential equations.
		CO4	Solve linear differential equations and equations reducible to the linear form.
		CO5	Identify exact differential equations.
		CO6	Solve first-order higher-degree equations for x, y, and p.
		CO7	Understand Clairaut's form and singular solutions.
		CO8	Interpret the geometrical meaning of a differential equation.
		CO9	Analyze orthogonal trajectories.
		CO10	Solve linear differential equations with constant coefficients.
		CO11	Solve homogeneous linear ordinary differential equations.
		CO12	Work with linear differential equations of the second order.
		CO13	Apply transformation techniques by changing dependent/independent variables.
		CO14	Utilize the method of variation of parameters.
		CO15	Solve ordinary simultaneous differential equations.
BMG 103-b	VECTOR ANALYSIS AND	CO1	Perform vector integration.
		CO2	State the theorems of Gauss, Green, and Stokes (statements only) and solve problems based on these theorems.
		CO3	Understand Beta and Gamma functions.

		CO4	Analyze the properties of planes.
		CO5	Explore the relationships between straight lines and planes.
		CO6	Investigate properties of spheres, cones, and cylinders.
BMG 201-a	ADVANCED CALCULUS	CO1	Formulate partial differential equations by eliminating constants and arbitrary functions.
		CO2	Define general, particular, and complete solutions for partial differential equations. Understand the concept of singular integral.
		CO3	Apply Lagrange's method to solve linear equations of the form Pp + Qq = R and understand Charpit's method.
		CO4	Analyze partial differential equations of second and higher orders. Classify linear partial differential equations of second order as homogeneous and non-homogeneous with constant coefficients.
		CO5	Define Laplace Transforms and calculate transforms for basic functions like e-at, cos at, sin at, tn, sinh at, coshat.
		CO6	Apply the First Shifting Theorem to calculate Laplace transforms of functions involving e-at.
		CO7	Apply the Second Shifting Theorem.
		CO8	Find Laplace transforms of derivatives f'(t) and f''(t).
		CO9	Calculate inverse transforms for standard forms and apply them to solve ordinary differential equations with constant coefficients.
BMG 202-a	REAL ANALYSIS I	CO1	Understand sets, elements, and operations on sets.
		CO2	Define real-valued functions and understand equivalence, countability, real numbers, least upper bound, and greatest lower bound.
		CO3	Define sequences and subsequences. Determine the limit of a sequence, convergent sequence, bounded sequence, monotone sequence, and Cauchy sequence.
		CO4	Explore the convergence and divergence of series of real numbers. Understand alternating series, conditional convergence, absolute convergence, and rearrangement of series.
		CO5	State the tests for absolute convergence and summation by parts for series.
		CO6	Understand limits in metric spaces, focusing on metric space examples.
		CO7	Define continuous functions at a point on the real line and understand reformulation.

		CO8	Define functions continuous on a metric space and explore open sets and closed sets in metric spaces.
		CO9	Discuss more about open sets and connected sets in metric spaces.
BMG 203-a	STATISTICS I	CO1	Understand the concepts of probability, probability space, total probability, conditional probability, Bayes' theorem, and random variables.
		CO2	Differentiate between discrete and continuous random variables. Explain distribution functions and calculate expected values and moments.
		CO3	Define moment generating functions and characteristic functions. Apply Tchebyshev's inequality.
		CO4	Describe the binomial, Poisson, normal, and uniform distributions. Understand the concept of bivariate distribution, including marginal and conditional distributions.
		CO5	Construct univariate and bivariate frequency distributions. Represent data and frequency distributions using bar and pie diagrams, line diagrams, frequency polygons, frequency curves, and histograms.
		CO6	Calculate cumulative frequency distributions and create Ogives and Lorenz curves. Compute measures of central tendency, dispersion, skewness, and kurtosis for numerical data.
BMG 201-b	MULTIPLE INTEGRALS, AND FOURIER TRANSFORM	CO1	Identify prime and composite numbers, and resolve composite numbers into prime factors. Understand the concept of divisors and Euler's function Ø(N).
		CO2	Calculate the integral part of a real number and determine the highest power of a prime P contained in n!. Understand congruences, Fermat's theorem, and Wilson's theorem.
		CO3	Apply the concept of Jacobian in double and triple integrals and evaluate integrals in simple cases using Jacobians.
		CO4	Change the order of integration in simple problems.
		CO5	Define the Fourier transform, understand its properties, and apply the linear property, shifting property, change of scale property, and modulation theorem.
		CO6	Calculate Fourier transforms of integrals and understand the relation between Fourier and Laplace transforms.
		CO7	Apply the convolution theorem for a Fourier transform and understand Parseval's identity.

		CO8	Work with Fourier sine transform and Fourier cosine transform.
BMG 202-b	REAL ANALYSIS II	CO1	Understand the concepts of bounded sets and totally bounded sets. Define complete metric spaces and analyze compactness in metric spaces.
		CO2	Work with compact continuous functions on compact metric spaces and examine continuity of the inverse function. Understand the concept of uniform continuity.
		CO3	Define sets of measure zero and the Riemann integral. Discuss the existence and properties of the Riemann integral.
		CO4	Explore derivatives, Rolle's theorem, the Law of the Mean, and the Fundamental theorem of Calculus.
		CO5	Study improper integrals and their properties.
		CO6	Understand the elementary functions, including hyperbolic, exponential, logarithmic, and trigonometric functions.
		CO7	Define Taylor series, the binomial theorem, and apply L'Hopital's rule.
BMG 203-b	STATISTICS II	CO1	Understand correlation and regression analysis. (Sections 10.1 to 10.7 of Reference book No.1)
		CO2	Comprehend the theory of attributes. (Sections 11.1 to 11.8.2 of Reference book No.1)
		CO3	Perform tests of significance, including large sample tests and exact tests based on t, chi-square, and F-distributions, with regard to mean, variance, and correlation coefficient.
		CO4	Conduct tests of independence in contingency tables and tests of goodness of fit. Understand the concept of hypothesis testing, Neymann-Pearson theory, and the concepts of the most powerful test.
		CO5	Analyze variance through one-way classification and two-way classification.
BMG 301-a	ABSTRACT ALGEBRA	CO1	Understand the concepts of ring homomorphism, ideals, and quotient rings in abstract algebra.
		CO2	Explore additional concepts related to ideals and quotient rings.
		CO3	Define the field of quotients of an integral domain and study Euclidean rings, with a focus on a specific Euclidean ring and the domain of Gaussian integers.
		CO4	Grasp the basic concepts of vector spaces, including linear independence and bases. Understand the concept of dual spaces.

		CO5	Define inner product spaces and understand the properties of inner products, including the Cauchy-Schwarz inequality, orthogonal vectors, orthogonal complements, and orthonormal sets and bases.
		CO6	Define linear transformations, explore the algebra of linear transformations, and study characteristic roots and characteristic vectors.
BMG 302-a	COMPLEX ANALYSIS I	CO1	Define complex numbers and understand their algebraic properties, Cartesian coordinates, triangular inequality, polar coordinates, and powers and roots. Recognize regions in the complex plane and understand the concept of the point at infinity.
		CO2	Define analytic functions and functions of a complex variable. Explore mapping, limits, theorems on limits, continuity, and derivatives of complex functions. Understand differentiation formulas and the Cauchy-Riemann equations, along with their sufficient conditions.
		CO3	Apply the Cauchy-Riemann equations in polar form and explore harmonic functions.
		CO4	Study elementary functions such as exponential functions, trigonometric functions, hyperbolic functions, logarithmic functions, branches of log z, and complex exponents.
		CO5	Understand mappings by elementary functions, including the linear function 1/z, linear fractional transformations, functions zn, z1/2, W = exp z, W = sin z, W = cos z, and successive transformations like W = z + 1/z.
BMG 303-a	MECHANICS I: STATICS	CO1	Define a force and identify various types of forces, including gravity, tension, resistance, and friction. Determine the magnitude and direction of the resultant of forces acting on a particle. Understand the concept of equilibrium of a particle.
		CO2	Analyze the equilibrium of a particle under three forces, including the use of the triangle of forces, Lami's theorem, and conditions for equilibrium under a system of forces. Study the equilibrium of a particle on a rough inclined plane.
		CO3	Understand equivalent systems of forces, resultant of parallel forces, couples, and the resultant of several coplanar forces. Explore moments of the resultant force and Varignon's theorem.

		CO4	Analyze the equilibrium of a rigid body under three coplanar forces, including finding the equation of the line of action of the resultant.
		CO5	Study the equilibrium of a uniform homogeneous string, including considerations of sag and applications such as suspension bridges.
BMG 304-a	OPERATIONS RESEARCH I	CO1	Understand the concept of the linear programming problem and apply the graphical method and simplex method to solve it.
		CO2	Solve transportation problems using appropriate methods and techniques.
		CO3	Solve assignment problems and understand the principles of the traveling salesman problem.
		CO4	Analyze replacement problems, including the replacement of items that deteriorate with time and the replacement of items that fail completely.
		CO5	Understand network analysis, including basic concepts, the construction of network diagrams, and the use of techniques like CPM (Critical Path Method) and PERT (Program Evaluation and Review Technique).
BMG 305-a	PROGRAMMING IN C	CO1	Understand the fundamentals of the C language, including the character set, identifiers, keywords, data types, declarations, expressions, statements, symbolic constants, input/output functions (e.g., getchar, putchar, scanf, printf, gets, puts), processor commands (e.g., include, define), operators (arithmetic, unary, logical, bitwise, assignments, conditional), and library functions.
		CO2	Implement control statements, such as while loops, do-while loops, nested loops, if-else statements, switch statements, break, continue, goto statements, and the comma operator. Learn to work with arrays, including defining and processing arrays, multi-dimensional arrays, and strings.
		CO3	Define and use functions, including passing arguments, using function prototypes, understanding recursion, and utilizing library functions. Explore storage classes, including automatic, external, and static variables.
		CO4	Work with structures, including defining and processing structures, and passing structures to functions. Understand unions.
		CO5	Explore pointers and their applications, including pointers and arrays, pointers and strings, and pointers and functions. Learn about simple file operations, including using pointers as files, low-level file operations, and random access file operations.

BMG 301-b	DISCRETE MATHEMATICS	CO1	Understand mathematical logic, including connectives, well-formed formulas, tautology, equivalence of formulas, duality law, tautological implications, and normal forms.
		CO2	Explore algebraic structures, including algebraic systems and their properties, semigroups, monoids, homomorphisms of semigroups and monoids, subsemigroups, submonoids, grammars, languages, syntax analysis, Polish expressions, and finite state machines.
		CO3	Understand graph theory, including definitions, applications of graphs, finite and infinite graphs, incidence and degree, isolated vertex, pendent vertex, null graph, isomorphism, and subgraphs.
		CO4	Study paths and circuits in graphs, including walks, paths, circuits, connected graphs, disconnected graphs, components, Euler graphs, operations on graphs, and Hamiltonian paths and circuits.
		CO5	Explore trees, including their properties, pendent vertices in a tree, distance and centers in a tree, rooted and binary trees, counting trees, and spanning trees.
BMG 302-b	COMPLEX ANALYSIS II	CO1	Understand definite integrals, contours, line integrals, and their applications. Explore the Cauchy-Goursat theorem, including its proof, and its applicability in simply and multiply connected domains. Learn to work with indefinite integrals.
		CO2	Apply the Cauchy integral formula, understand derivatives of analytic functions, explore Morera's theorem, analyze the maximum moduli of functions, and grasp the fundamental theorem of algebra.
		CO3	Study the convergence of sequences and series, including Taylor series, Laurent series, and further properties of series.
		CO4	Understand singularities, including their definitions and examples, residues, the residue theorem, the principal part of a function, poles, and the quotient of analytic functions.
		CO5	Explore contour integration techniques and applications.
BMG 303-b	MECHANICS II: DYNAMICS	CO1	Understand kinematics, including velocity, relative velocity, acceleration, angular velocity, relative angular velocity, rectilinear motion, work, power, and energy in the context of dynamics.

		CO2	Analyze central orbits, central forces, equations of central orbits, the law of force and speed for given orbits, and Kepler's laws of planetary motion.
		CO3	Study the motion of a projectile under gravity, including the nature of a trajectory, results pertaining to the motion of a projectile, maximum horizontal range, trajectories with given speed of projection and horizontal range, speed of a projectile, range on an inclined plane, maximum range on an inclined plane, and the envelope of trajectories.
		CO4	Define simple harmonic motion and explore its properties, including the composition of two simple harmonic motions of the same period. Understand moment of inertia, theorems of moment of inertia, and theorems of perpendicular axes and parallel axes.
		CO5	Analyze two-dimensional motion of a rigid body, including motion rotating about a fixed axis, compound pendulum motion, reaction of the axis on a rigid body revolving about a fixed axis, equations of motion for two-dimensional motion, and the motion of a uniform disk rolling down an inclined plane.
BMG 304-b	OPERATIONS RESEARCH II	CO1	Solve sequencing problems involving n jobs and multiple machines, including cases with 2 machines, 3 machines, and m machines.
		CO2	Understand dynamic programming, including the recursive approach, computational procedure, tabular method, and its application in solving linear programming problems.
		CO3	Analyze inventory control models, specifically deterministic models, including scenarios with uniform rates of demand, infinite rate of production, no shortages, finite rate of replenishment, instantaneous production with and without shortages, and fixed time.
		CO4	Explore competitive games, two-person zero-sum games, maximin-minimax principles, saddle points, solution using the principle of dominance, and graphical solution techniques.
		CO5	Introduce simulation techniques, including event-type simulation, generation of random phenomena, Monte Carlo techniques, and the application of simulation to inventory problems.

BMG 305-b	NUMERICAL ANALYSIS USING C	CO1	Solve algebraic and transcendental equations using various numerical methods, including Bolzano's bisection method, successive approximation method, Regula Falsi method, and Newton-Raphson method.
		CO2	Numerically solve simultaneous linear algebraic equations using methods such as Gauss elimination, Gauss-Jordan elimination, and Gauss-Seidel iteration.
		CO3	Apply finite difference operators and solve first and second-order linear difference equations with constant coefficients, as well as non-homogeneous linear difference equations with constant coefficients.
		CO4	Perform interpolation using methods like Newton-Gregory forward and backward interpolation, Newton's divided difference formula, Lagrange's interpolation formula for uneven intervals, and Gauss interpolation formula. Also, explore numerical differentiation and integration techniques, including the trapezoidal rule and Simpson's 1/3rd rule.
		CO5	Solve ordinary differential equations of the first and second order using numerical methods, including Taylor series method, Picard's method, Euler's method, Improved Euler's method, Modified Euler's method, Runge-Kutta method of second and fourth order, and Milne's predictor-corrector method.
B.Sc Computer Science			
CSCS113	Introduction to Problem	CO1	Demonstrate an understanding of computer programming language concepts.
		CO2	Ability to design and develop Computer programs in C
		CO3	Able to define data types and use them in simple data processing applications also he/she must be able to use the concept of array of structures.
		CO4	Able to analyzes, and interprets the concept of pointers, declarations, initialization, operations on pointers and their usage.
CSCS114	Digital Logic and	CO1	Identify, understand and apply different number systems and codes.
		CO2	Understand the digital representation of data in a computer system.
		CO3	Learn about Shift registers
		CO4	Understand the general concepts in digital logic design, including logic elements, and their use in combinational and sequential logic circuit design.
CSCS116	C Lab	CO1	Skill to write program code in C to solve real world problems and to debug a program

		CO2	In-depth understanding of various concepts of C language.
		CO3	To develop software program using “C” language
		CO4	To learn the concepts of “ C ” Programming
CSCS117	Digital Lab	CO1	Learn the basics of gates
		CO2	Construct basic combinational circuits and verify their functionalities
		CO3	Apply the design procedures to design basic combinational circuits
		CO4	To understand the basic digital circuits and to verify their operation
CSCS123	PYTHON Programming	CO1	To learn how to design and program Python applications.
		CO2	To understand why Python is a useful scripting language for developers
		CO3	To acquire programming skills in Python.
		CO4	To acquire Object Oriented Skills in Python
CSCS124	Data Structures and	CO1	To understand concepts about searching and sorting techniques
		CO2	To Understand basic concepts about stacks,queues,lists,trees and graphs
		CO3	To understanding about writing algorithms and step by step approach in solving problems with the help of fundamental data structures
		CO4	Understand basic data structures such as arrays, linked lists, stacks and queues.
CSCS128	PYTHON lab	CO1	To learn basic python concept.
		CO2	Ability to isolate and fix common errors in Python programs.
		CO3	Skill to write codes in Python to solve mathematical or real world problems.
		CO4	To develop simple Python programs and code reusing with functions
CSCS129	Data Structures &	CO1	Skill to analyze data and to determine appropriate data structure.
		CO2	Knowledge of various data structures and their implementations.
		CO3	Ability to implement algorithms to perform various operations on data structures.
CSCS231	Database Management	CO1	Describe the fundamental elements of relational database management systems
		CO2	database and formulate SQL queries on data
		CO3	Improve the database design by normalization
		CO4	Design ER-models to represent simple database application scenarios
CSCS232	Visual Programming	CO1	To understand the various types of applications
		CO2	To get expertise in visual programming
		CO3	To understand the functionalities of middleware platform

CSCS233	Computer Networks	CO1	Identify and use various networking components Understand different transmission media and design cables for establishing a network
		CO2	Understand the TCP/IP configuration for Windows and Linux
		CO3	Implement any topology using network devices
		CO4	Implement device sharing on network
CSCS234	Software Engineering	CO1	Acquire strong fundamental knowledge in science, software engineering and multidisciplinary engineering to begin in practice as a software engineer.
		CO2	Design applicable solutions in one or more application domains using software engineering approaches that integrate ethical, social, legal and economic concerns.
		CO3	Apply new software models, techniques and technologies to bring out innovative and novelistic solutions for the growth of the society.
		CO4	Deliver quality software products by possessing the leadership skills as an individual or contributing to the team development
CSCS237	Visual Programming & RDBMS Lab	CO1	understand the programming algorithm, process, and developing data base designs
		CO2	Understand the use of Structured Query Language (SQL) and learn SQL syntax.
		CO3	Apply normalization techniques to normalize the database
CSCS238	Computer Networks Lab	CO1	To educate the functions of various OSI layers in detail
		CO2	Knowledge of OSI Layers in Computer Network.
		CO3	Ability to identify transmission media, types and topologies of network.
		CO4	Familiarization with the techniques of error detection and congestion control
CSCS242	Object Oriented Programming using Java	CO1	Discuss the principles of inheritance, interface and packages and demonstrate though problem analysis assignments
		CO2	To learn experience of designing, implementing, testing, and debugging graphical user interfaces in Java using applet and AWT that respond to different user events
		CO3	To understand importance of Multi-threading & different exception handling mechanisms.

		CO4	To understand the importance of Classes & objects along with constructors, Arrays and Vectors.
CSCS241	Operating Systems	CO1	Understand the basics of operating systems like kernel, shell, types and views of operating
		CO2	Describe the various CPU scheduling algorithms and remove deadlocks.
		CO3	Explain various memory management techniques and concept of thrashing
		CO4	Recognize file system interface, protection and security mechanisms
CSCS243	Client/Server Computing	CO1	Understand the concept of client-server development and learn problem solving skills through design scenarios for network environment.
		CO2	To Define the underlying concepts in client server development using common access databases
		CO3	To understand Distributed computing environment, RMI and DCOM architecture,& CORBA.
		CO4	The objective of the course is to understand various WAN technologies and related Protocols
CSCS247	Principles of Programming languages	CO1	To introduce notations to describe syntax and semantics of programming languages
		CO2	To introduce the concepts of ADT and object oriented programming for large scale software development.
		CO3	To analyze and explain behavior of simple programs in imperative languages using concepts
		CO4	To introduce the concepts of concurrency control and exception handling.
CSCS249	Computer Graphics	CO1	Gain knowledge about graphics hardware devices and software used.
		CO2	Understand the two dimensional graphics and their transformations
		CO3	Understand the three dimensional graphics and their transformations
		CO4	Be familiar with understand clipping technique
CSCS237	Object Oriented	CO1	To learn the basic concepts of OOP
		CO2	Ability to create packages and interfaces.
		CO3	Ability to implement error handling techniques using exception handling.

		CO4	Skill to write Java application programs using OOP principles and proper program structuring.
CSCS301	Programming with C++	CO1	To learn the basics of C++ programming languages.
		CO2	To learn concepts of object oriented programming in developing solutions to
			problems demonstrating usage of data abstraction, encapsulation, and inheritance
		CO3	To implement the program using the concepts
			Polymorphism, dynamic binding.
		CO4	Understand and Apply object oriented programming concepts in problem solving through C++.
CSCS351	Web Technology	CO1	Apply the concepts, principles and methods of Web engineering
		CO2	have a sufficient theoretical knowledge and analytical skills to develop Web applications;
		CO3	Apply the described concepts, principles and methods to development of complex Web applications
		CO4	Design and develop website using current Web technologies
CSCS353	Data Mining	CO1	To develop programs and methods for data Mining applications.
		CO2	To solve problems for multi0core or distributed, concurrent/Parallel environment
		CO3	To understand the Data Mining and their techniques to solve the real time problems.
		CO4	To develop ability to design various algorithms based on data mining tools
CSCS356	Systems Software	CO1	Distinguish between Operating Systems software and Application Systems software
		CO2	Identify Desktop and Windows features
		CO3	Describe the “boot” process.
		CO4	Use Utility programs.
CSCS357	Artificial Intelligence	CO1	To study the concepts of Artificial Intelligence and Methods of solving problems using Artificial Intelligence
		CO2	To understand the basic techniques of knowledge representation and their use and components of an intelligent agent

		CO3	To be able to implement basic decision making algorithms, including search based and problem solving techniques, and first-order logic.
		CO4	To know the basic issues in machine learning
CSCS259	Web Technology Lab	CO1	To inculcate knowledge of web technological concepts and functioning of internet
		CO2	To learn and program features of web programming languages.
		CO3	To understand the major components of internet and associated protocols.
		CO4	To design an innovative application for web.
CSCS402	PROLOG Programming	CO1	To learn how to create programs based on artificial intelligence
		CO2	write PROLOG programs to solve a variety of problems
		CO3	develop and test Prolog programs using a suitable Prolog interpreter
		CO4	use PROLOG as an effective AI programming tool
CSCS361	Microprocessors and Controllers	CO1	Understand the taxonomy of microprocessors and knowledge of contemporary microprocessors
		CO2	To understand the architectures and the instruction set of 8086 microprocessor
		CO3	To understand the architectures and the instruction set of 8051 microcontroller
		CO4	To learn interfacing of microprocessors and microcontrollers with various devices
CSCS362	PROJECT	CO1	An ability to use current techniques, skills, and tools necessary for computing practice.
		CO2	An ability to use current techniques, skills, and tools necessary for computing practice.
		CO3	An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.

HOME SCIENCE

SEMESTER I

UHSC 111	Food Science Non perishable Ingredients	CO1	To enable the students to obtain knowledge of different food groups, their composition, nutrients present, appropriate cooking methods for nutrient conservation and their role in diet with respect to ingredients with longer shelf life.
UHSC 112	Human Physiology	CO2	To enable the students to: Understand the structure and functions of various organs of the bodyØ Obtain a better understanding of the principles of nutrition through theØ study of physiology Highlight the influence of improper functioning of the organ system and disease.
PADM 113	Public Administration	CO3	This course introduces the students to the elements of public administration which would help them to obtain suitable conceptual perspective on Public administration.
SEMESTER II			
IB UHSC 121	Food Science: Perishable Ingredients	CO1	To enable the students to obtain knowledge of different food groups, their composition, nutrients present, appropriate cooking methods for nutrient conservation and their role in diet with respect to food ingredients with lesser shelf life and are perishable.
UHSC 122	Food Microbiology	CO2	To enable students to: Understand the role of microbes in health and diseasesØ Study the microbes in relation to food spoilage, food-borne diseases and foodØ preservation
AECC-2	Environmental Studies	CO3	Environmental Studies (EVS) at the primary stage envisages exposing students to the real situations in their surroundings to help them connect, be aware of, appreciate and be sensitized towards the prevailing environmental issues (natural, physical, social and cultural).
SEMESTER III			
UHSC 231	Fundamentals of Human Nutrition	CO1	To enable the students to: Gain basic knowledge of the different nutrients and their role in humanØ health Gain insight into health problems associated with imbalance of nutrientØ intake Understand the signs, symptoms, toxicity of various nutrientsØ

UHSC 232	Dietetics for Normal Conditions	CO2	To enable the students to: Understand the Physiological basis for NutritionØ Get familiarised with the basic concepts and gain experience in Planning andØ Preparation of meals for various age group at different income level and conditions based on their nutritional needs. Get exposed to responsibilities of a dietianØ
UHSC 233	Tourism& Hospitality Management	CO3	To enable the students to be familiarised with the nuances of Tourism & Hospitality industry
UHSC 231(PI)	Nutrition	CO3	Practical Learning
SEMESTER IV			
UHSC 241	Dietetics for Therapeutic Condition	CO1	To enable the students to: Acquire knowledge on the clinical, biochemical changes and dietaryØ management ofvarious disease Gain knowledge in planning and preparation of Therapeutic diets.Ø Manage to make appropriate dietary modification for various diseaseØ conditions, skills and attributes required to meet entry level competency required for a dietician
UHSC 242	Human Development	CO2	To enable the students to: Acquire knowledge on the clinical, biochemical changes and dietaryØ management ofvarious disease Gain knowledge in planning and preparation of Therapeutic diets.Ø Manage to make appropriate dietary modification for various diseaseØ conditions, skills and attributes required to meet entry level competency required for a dietician
UHSC 243	Computer Applications	CO3	To enable the students to operate a computer and put to use for education, information and research purpose.
232&241(PE)	Dietetics	CO1	Practical Learning
UHSC 242(PI)	Human Development	CO2	Practical Learning
UHSC 243 (PE)	Computer Applications	CO3	Practical Learning
SEMESTER V			
UHSC 351	NGOs & Corporate Social Responsibility	CO1	To enable the students to: Get familiarised with the details of establishing a NGO in India and itsØbenefits Understand the role of CSR in improving the standard of living of the downØ trodden

UHSC 352	Fundamentals of Textiles	CO2	To enable the students to: Get familiarised with the details different types of textile fibres and fabricØ formation To gain knowledge about various finishing techniquesØ To know about various traditional textiles and costumes.Ø
UHSC 353	Family Resource Management	CO3	To enable the students to: Get familiarised with the details different types of textile fibres and fabricØ formation To gain knowledge about various finishing techniquesØ To know about various traditional textiles and costumes.Ø
UHSC 354	Family Dynamics	CO4	To enable the students to: To develop a scientific attitude towards behavioural patterns in individual,Ø family and community life. To promote adjustment in marital lifeØ
UHSC 355	Nutritional Assessment & Surveillance	CO5	To enable the students to: Gain insight into the national nutritional problems and their implicationsØ Learn the methods used for assessing the diet and nutritional status of aØ Community Know the on going intervention programmes for overcoming malnutrition inØ the community. Acquire skill in conducting nutrition educationØ
UHSC 356	Extension Education	CO6	To enable the students to: To obtain necessary skills in extension teaching and field workØ To know the role of extension workers in planning programmes for theØ community.
UHSC 357	Fundamentals of Adolescent Health		This paper will enable the students to get acquainted with the physical, mental and social health aspects of adolescents
SEMESTER VI			
UHSC 361	Entrepreneurship Development	CO1	To enable the students to: Get a basic idea of clothing careØ & selection. Develop skills in apparel designing and constructionØ Understand about Machine parts and its functionsØ
UHSC 362	Clothing Care &Construction	CO2	To enable the students to get acquainted with: The values and goals in housing.Ø The principles of house maintenance that promote health and comfort of theØ family. The fundamental principles of interior design.Ø
UHSC 363	Housing &Interior Decoration	CO3	o To familiarize the student with the changing socio-economic environment and consumer behavior.
UHSC 364	Personal Finance & Consumer Studies	CO4	o To strengthen the financial management practices of the students for wise consumer behavior.

UHSC 365	Food Safety and Quality Control	CO5	To enable the students to get acquainted with: Institutional food safety hazards, assessment of risk, and evaluation, qualityØ control Principles, actions, and limitations of food sanitation proceduresØ
UHSC 367	Gender and Development	CO6	To enable the students to get acquainted with: The concept related to genderØ & development Women's issues and problemsØ Legal provisions and policies for womenØ The significance of gender development in national developmentØ
UHSC 368	Alternate Healing Traditions in India	CO7	To enable the students to get acquainted, promote, propagate and advance the science of various healing traditions in India and their principles.
352&362(PE)	Construction	CO8	Practical Learning
UHSC363(PE)	Decoration	CO9	Practical Learning

HINDI

SEMESTER I

LHIN - 111	Samanya Hindi-I	CO1	To intoduce the Hindi literature to the Non Hindi speaking students in an interesting manner through Hindi Novel.
		CO2	To develop a vision to understand moral values and life skills indirectly through Hindi novel.
		CO3	To acquire knowledge of appropriate terminological vocabulary and the ability construct correct words forms.
		CO4	To equip oneself with the improved communicative Hindi skills- with practice in writing and speaking.
SEMESTER II			
	Samanya Hindi-II		
LHIN- 121		CO1	To develop creative thinking by going through the Drama.
		CO2	To impart knowledge of standard form of Devanagari script while enhancing Hindi linguistic skills.
		CO3	To develop sensitivity towards use of Hindi in the process of communication.

		CO4	To develop the ability to answer questions related to Hindi language and Grammer coming in various competitive examinations while giving knowledge of Hindi grammer.
SEMESTER III			
		CO1	To develop creative thinking by going through the different prose genres.
LHIN- 231	Samanya Hindi-III	CO2	To demonstrate ability to think critically by analysing the prescribed lessons from socio-cultural perspective.
		CO3	To acquaint with the writing style of modern Hindi prose writers
		CO4	To have knowledge on National language, official language, Contact and language of Media.

SEMESTER IV

		CO1	To develop creative thinking by going through the poetries.
		CO2	To demonstrate ability to think critically by analysing the prescribed lessons from socio-cultural perspective.
LHIN- 241	Samanya Hindi-IV	CO3	To developing interest in the field of translation skills amd making aware of the opportunities available in the field of translation.
		CO4	To introduce poets of medieval and modern period of Hindi Literature and their poetic style.
		CO5	Two years foundation course makes them eligible to further study M.A. Hindi, M.A. Functional Hindi, Diploma In Translation, Diploma in journalism which further provides additional job opportunity.